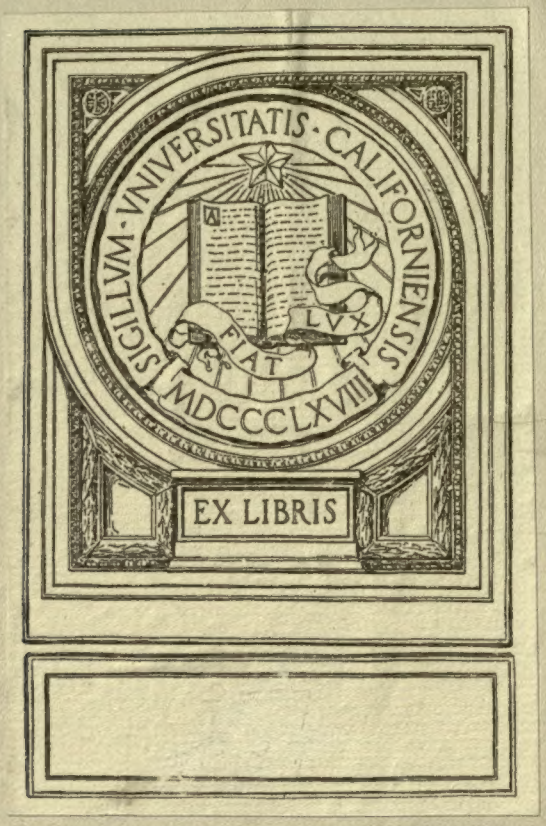
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DEPARTMENT OF AGRICULTURE.

REPORT

UPON AN

EXAMINATION OF WOOLS

AND

OTHER ANIMAL FIBERS,

BY

WM. McMURTRIE, E. M., Ph. D.

LIBRARY OF THE UNIVERSITY OF CALIFORNIA.

MADE UNDER THE DIRECTION

OF THE

COMMISSIONER OF AGRICULTURE.

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1886.

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Joint resolution to print ten thousand copies of the Report of the Commissioner of Agriculture on the International Sheep and Wool Show held in Philadelphia in September, eighteen hundred and eighty.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That there be printed ten thousand copies of the Report of the Commissioner of Agriculture on the International Sheep and Wool Show held in Philadelphia, Pennsylvania, in September eighteen hundred and eighty; of which three thousand copies shall be for the use of members of the Senate, six thousand copies for the use of members of the House of Representatives, and three thousand copies for the use of the Commissioner of Agriculture; the work to be subject to the approval of the Commissioner of Agriculture.

Approved, August 4, 1886.

39606

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INTRODUCTORY NOTE.

UNITED STATES DEPARTMENT OF AGRICULTURE, COMMISSIONER'S OFFICE,
Washington, D. C., September 20, 1886.

It gives me great pleasure to state that in accordance with a recommendation contained in my first annual report, Congress provided at its last session for printing the following report, originally made to my immediate predecessor, in 1883. By my direction it has been revised and corrected, and its interesting and important information, based upon an elaborate system of tests and scientific examination, and, happily, furnishing a scientific indorsement of American wool, is now laid before the country.

NORMAN J. COLMAN,
Commissioner of Agriculture.

LETTER OF TRANSMITTAL.

CHAMPAIGN, ILL., *August* 25, 1886.

SIR: I have the honor herewith to submit a report on the examination of wools and other animal fibers prepared under the direction of your predecessors in office, and that I have finally had the pleasure to revise and correct for publication by your order. I may venture to express the hope that the results and conclusions here presented may not have diminished in value or interest from the delay in their publication, and my satisfaction that this product of several years of labor is to be brought before the public through your influence and exertions.

Very respectfully,

WM. MCMURTRIE,
Professor of Chemistry, University of Illinois.

Hon. NORMAN J. COLMAN,
Commissioner of Agriculture.

ORIGINAL TRANSMITTAL.

CHAMPAIGN, ILL., *July* 1, 1884.

SIR: I have the honor to submit herewith a report of my investigation of the physical properties of wools and other animal fibers made in pursuance of the provisions of an act of Congress, approved April 16, 1880.

This act of Congress provided for making a collection of wools and other animal fibers exhibited at the International Exhibition of Sheep, Wool, and Wool Products held in Philadelphia in September, 1880, and for "making a scientific examination of the fineness, textile strength, and felting properties" of the material so collected. These provisions were construed to direct a study of all the important qualities of the fibers named, and the work prosecuted has therefore been extended to the minute structure of the fiber of different breeds, its length, crimp, fineness, strength, and elasticity, and the discussion of the relation of each of these properties to the other, and to the breed, sex, age, and portion of fleece represented.

In a work of this kind it is natural that most of the results should be of a statistical character and should therefore be expressed in tabular form, and it is thus that we have for the most part presented them. In a few cases the relations are shown by series of curves, but these are principally explanatory of tables that have preceded. In the construction of the tables we have aimed to so present the results as to clearly show all the important relations to be taken into account and make them readily intelligible to all interested. Each property named is illustrated in the tables and discussed in the text, first separately and afterward as regards the others. We do not claim to have pointed out all the relations that may be shown by these figures, nor would it be possible for us under the circumstances to do so. We have therefore submitted, first of all, all the results obtained, so that whenever it may be desirable other hands may take up the work, develop other relations here overlooked, and formulate conclusions of interest and value either to the agricultural or commercial side.

The examination was begun with pure breeds alone, but it was afterwards extended to a study of the commercial grades of the markets of Philadelphia and Boston by means of material for which we are indebted to the generous interest of Mr. J. D. Whitham, of Valley Grove, W. Va., and Mr. William G. Markham, of Avon, N. Y., and I desire here to express my high appreciation of the valued assistance thus afforded. It has enabled us

to show the variation occurring in these grades and determine, to an imperfect extent it is true, yet with some considerable degree of satisfaction, the standards that should be adopted for each grade. These must of necessity largely depend in this country, as may be seen from the notes of the catalogue list of the grades, not upon one property alone, but upon a combination of all. And while the present condition of the commercial demands admit of the wide variations here shown, it is to be hoped that the time will come when manufacturers will be more exacting in their demands, requiring greater uniformity in the quality of their raw material, and securing as a result greater uniformity and stability in the quality of the products of their looms. Nothing but such demands by manufacturers can overcome the more or less careless habits of American wool-growers, and on the other hand the exercise of greater care in the management of flocks must undoubtedly have an important influence in reducing the demand for a foreign product for the manufacture of the better and finer grades of woolen goods. It therefore behooves all interested in the great woolen industries of the country to use every endeavor to bring about this greatly desired end.

In conclusion I desire to acknowledge the intelligent and efficient assistance I have received at the hands of Mr. F. B. Dosh, now deceased, Mr. A. S. Hall, and Prof. N. Clifford Ricker, in the practical work of their investigations and the discussions of the results; and of the Messrs. J. W. Queen & Co., of Philadelphia, and Edward Kübel, of Washington, in the construction of the special apparatus required in the work.

And finally I desire to thank you, sir, for the continued and generous support and encouragement I have received at your hands throughout the course of this investigation.

Respectfully submitted.

WM. McMURTRIE, E. M. PH. D.,
Professor of Chemistry, Illinois Industrial University.

Hon. GEO. B. LORING,
Commissioner of Agriculture.

ANNOUNCEMENTS, REGULATIONS, PREMIUM LISTS, &c.

International Exhibition of Sheep, Wool, and Wool Products, to be held in the Main Exhibition Building, Fairmount Park, Philadelphia, September, 1880, under the auspices of the Pennsylvania State Agricultural Society.

The International Exhibition of Sheep, Wool and Wool Products will be held in response to the general and earnest desire of American sheep-breeders and wool-growers, expressed in their correspondence with the Pennsylvania State Agricultural Society during two years past.

The effect of such an exhibition on great branches of agricultural and mechanical industry, both of which will be represented, cannot fail to be most salutary. Nor on these branches only; chemistry in its applications to the manufacture and fixing of dyes, and the arts of design in the production of original and tasteful patterns, will also feel the impulse.

Active competition for prizes, among the best animals of the most improved breeds of this and foreign countries, will lead to a more intimate knowledge and more general adoption of the methods of breeding, by which marked and permanent improvement has been gained. It will stimulate to further investigation into the effects of breed, climate, soil, and forage upon the quality and quantity of wool and flesh, facilitate the interchange of views among the best growers, and insure the more general introduction of improved stock.

The exhibition will also lead to a better understanding between manufacturers and growers on the subject of the needs of the former and the methods of supplying them; it will tend to show the latest and most approved inventions for cleaning, combing, bleaching, spinning, weaving, and felting wool, the newest and most durable dyes, the apparatus and processes for their production and application, and the most elegant fabrics from celebrated mills at home and abroad.

A general and cordial invitation to participate in the exhibition, and to compete for the prizes, is extended to the people of all nations.

The United States Commissioner of Agriculture will use whatever influence and co-operation it may be in his power individually and through his Department to afford.

Congress has enacted, and the President of the United States has appr oved, a bill authorizing and directing the Commissioner of Agriculture to make a full and complete report of the Exhibition; and the Treasury Department has decided that the Exhibition Building may be treated for the purposes of the show as a United States warehouse, from which withdrawals for consumption may be made in the usual manner, after entry therefor at the custom-house.

The objects must be accompanied by consular invoices, and be entered for warehouse in the usual manner. The entry should show the purpose of the importation, and the importer attach his affidavit to the effect that the objects are imported for the sole purpose of exhibition, as authorized by the statute.*

All objects, including sheep, will be placed within the main building of the International Exhibition of 1876.

Railroad stations opposite the Park will afford every facility for the transfer of passengers, live stock, machinery, and goods Arrangements have been made with the railroad companies of Pennsylvania for the free return, over their lines, of all unsold articles and animals on which full freight to the Exhibition has been prepaid; and the committee of arrangements will promptly co-operate with exhibitors in securing a similar reduction on lines beyond the State.

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*A circular giving full information to exhibitors of foreign products who desire at the close of the exhibition to dispose of them, or withdraw them for exportation, will be sent free on application to the Secretaries.

NATIONAL COMMITTEE OF CO-OPERATION.

Hon. Wm. G. Le Duc, *Commissioner of Agriculture, Chairman.* *Pennsylvania:* Hon. W. S. Shallenberger, Beaver. *New York:* Wm. G. Markham, esq., Avon. *Ohio:* E. J. Hiatt, Chester Hill. *Maryland:* Hon. James T. Earle, Centreville. *Massachusetts:* John L. Hayes, esq., Boston. *Tennessee:* Hon. J. B. Killebrew, Nashville. *Maine:* C. P. Mattocks, esq., Portland. *New Jersey:* Henry C. Kelsey, Trenton. *Vermont:* Albert Chapman, esq., Middlebury. *Texas:* F. W. Shaefler, San Diego. *West Virginia:* Hon. Henry G. Davis, Piedmont. *Kentucky:* T. J. Megibbin, esq., Cynthiana. *South Carolina:* Hon. D. Wyatt Aiken, Cokesbury. *Illinois:* Daniel Kelly, esq., Wheaton. *Virginia:* Hon. Thos. Pollard, Richmond. *Colorado:* J. S. Stanger, esq., Denver. *California:* Bergimer Flint, esq., San Juan. *Oregon:* H. V. Sanborn, esq., Portland. *Missouri:* Samuel Archer, esq., Kansas City. *Wisconsin:* Charles R. Gibbs, esq., Whitewater. *Michigan:* J. P. Sanborn, Port Huron. *Ontario:* Hon. David Blair, Toronto. *Quebec:* Hon. Edward A. Bernard, Quebec.

COMMITTEE OF ARRANGEMENT.

William S. Bissell, Allegheny County, *President.* John C. Morris, Susquehanna County. Alfred L. Kennedy, Philadelphia. D. W. Seiler, Harrisburg, *Recording Secretary.* John McDowell, Washington County. William H. Egle, Harrisburg. Elbridge McConkey, Harrisburg, *Corresponding Secretary.*

Regulations of the International Exhibition of Sheep, Wool, and Wool Products.

Competition is open to the People of all Nations.

No entry fee is required except for the Sweepstakes prizes, when a fee equal to ten per cent. of the prize must accompany the entry in all cases.

The Books of Entry are now open at the office, northwest corner of Tenth and Chestnut streets, Philadelphia.

All Sheep, Wool, and Hair must be entered on the books of the Secretary on or before Tuesday, September 14, and all other objects, except Sheep-dogs, on or before Tuesday, August 31.*

All Sheep entered for competition must be entered in the name of the *bona fide* owner or owners or firm or authorized agent, giving the names of the breed and breeders as well as the owner's residence.

When an allotment of space has been definitely made, the applicant will be notified and a Permit for Space sent him.

All objects intended for the International Exhibition, except animals, hair, and wool, must be in their places on or before Monday, September 6, the day of the opening of the State Fair. They will thus continue on exhibition during three weeks, *i. e.*, the two weeks of the State Fair, and the week of the International Show.

Pens for the reception of Sheep, and spaces for the display of Hair and Wool, will be in readiness on Saturday, September 18, noon. Before that time no Sheep will be permitted to enter the grounds.

All animals must be within the gates on Monday, September 20, in order that they may be arranged for immediate examination by the juries.

Hay and straw will be furnished free. Grain will be provided at cost price for those who desire to purchase feed for their stock.

A certificate of authentic pedigree must be filed with the Secretary, setting forth that the Sheep entered for competition are regularly recorded in a sheep-breeder's register, recognized as such in one or more of the States, or by a foreign association of sheep-breeders, or that they are qualified for entry therein, by descent and beyond dispute, where such registry exists. If registered, a copy of said certificate must be filed with the Secretary for the use of the Jury of Awards; if unregistered, satisfactory proof of their eligibility to registration must be furnished at the time of entry.

All sheep entered as Merino, middle wool, or long wool, and intended for competition in their respective divisions, are not to be overfed, or in other words, overfat, but must be in good breeding condition. As the great object of the exhibition is to encourage breeders, overfat Sheep, except as hereinafter provided, other than lambs, will be excluded.

Merinos entered for competition must be shorn of uniform length over the entire surface, leaving the stubble not longer than three-eighths of an inch when shorn, exhibitor to state the time of last shearing. Any subsequent clipping into shape, smoothing the surface, or adding any foreign substance or coloring to the surface, shall disqualify from competition. An exhibitor adjudged to be practicing fraud, whether by violating this rule or by any other false representation of his exhibit, shall forfeit all his rights and privileges as an exhibitor.

All exhibitors of thoroughbred Sheep of any of the three divisions may have the privilege of submitting to the Juries of Awards in such class the scale of points used in entering the animals for registration, where such registration is provided and recognized. When two or more scales of points are submitted, the jury of awards shall have the power to select values from those scales for use in determining the award. Sheep unregistered, but eligible to registration, unable to scale the requisite points, are declared ineligible to compete for prizes, but if exhibited in pens or flocks they may contribute to make up the number required; but no prize can be awarded unless such pen or flock, on the average, is the highest of those in competition above the minimum required in any recognized register. Sheep in pens, or otherwise, unable to scale the above number of points, can receive only the third or lowest premiums of award. A pen of sheep shall be understood to include three or more in number.

In the English breeds, where no recognized registry exists, the members of the Jury of Awards shall be governed by such scale of points and such certificates of pedigree and pure breeding, as to them shall seem best, such certificates to be filed with the Secretary, as shall establish that the animals have been imported or descended directly from one or more importations from Great Britain.

The members of the Juries of Award shall be selected from among the most expert and efficient residents of the several States of the Union and of foreign wool-growing countries. Officers and members of the Pennsylvania State Agricultural Society shall not be appointed to membership in the Juries.

Overfat Sheep can compete only as fat animals. For fat Sheep the awards shall be governed by the rules adopted by the Illinois State Board of Agriculture.

Lines of shafting, having velocities of 120 and 240 revolutions per minute, respectively, extend lengthwise of the building, at the height of 24 feet from the floor.

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*For regulations of the Collie trials, see Division F, of List of Premiums.

Shafting and steam power will be supplied gratuitously to exhibitors of machinery in motion. Countershafts, pulleys on the main shafts, and all necessary appliances, must be furnished by exhibitors at their own cost. Pulleys for main shafts must not exceed 3 feet in diameter. They must be balanced in halves, and so secured as not to weaken or injure the shafting. Exhibitors will be required to maintain supervision over all gear supplied by them, and to furnish attendants to operate their machinery.

Application for motive power should be made before September 1. It should state actual horse-power required and width of face and number of revolutions of driving-pulley.

W. S. BISSELL, *President.*
D. W. SEILER, *Recording Secretary.*
ELBRIDGE McCONKEY, *Corresponding Secretary.*

Office of International Exhibition of Sheep, Wool, and Wool Products, northwest corner Tenth and Chestnut streets, Philadelphia, July 7, 1880.

LIST OF PREMIUMS.

[The diploma of the International Exhibition will accompany each cash premium.]

DIVISION A.—MERINOS.

Premium list, number.	Description.	First premium.	Second premium.	Third premium.
1	Ram over three years	$100 00	$50 00	$25 00
2	Ram, two years and under three	75 00	40 00	20 00
3	Ram, one year and under two	50 00	25 00	15 00
4	Ram lamb	30 00	20 00	10 00
5	Pen three ewes over three years	75 00	50 00	25 00
6	Pen three ewes, two years and under three	50 00	35 00	20 00
7	Pen three ewes, one year and under two	30 00	25 00	15 00
8	Pen three ewe lambs	20 00	15 00	10 00
9	Stock ram, and ten of his get—two males, eight females; not more than three to be shown under one year old	125 00	75 00	50 00
10	Stock ram, as above, under one year old	125 00	75 00	50 00
11	Pen to consist of one ram, of any age, three ewes two years and over, three ewes between one and two years, and three ewe lambs	125 00	75 00	50 00
	SWEEPSTAKES.			
12	Best pen to consist of two rams and fourteen ewes; all to be line bred, of one breed	*450 00	.....	.....
13	Two rams and ten ewes over one year	200 00	.....	.....

DIVISION B.—MIDDLE WOOLED.

	SOUTHDOWNS.			
1	Ram, two years or over	$100 00	$50 00	$25 00
2	Ram, one year and under two years	75 00	40 00	20 00
3	Ram lamb	50 00	25 00	15 00
4	Pen three ewes, two years or over	75 00	40 00	20 00
5	Pen three ewes, one year and under two years	50 00	25 00	15 00
6	Ewe lamb	30 00	20 00	10 00
7	Stock ram, and five of his get, over one year	75 00	50 00	25 00
	OTHER MIDDLE WOOLED.			
8	Ram, two years and over	100 00	50 00	25 00
10	Ram, one year and under two years	75 00	40 00	20 00
11	Ram lamb	50 00	25 00	15 00
12	Pen three ewes, two years and over	75 00	40 00	20 00
13	Pen three ewes, one year and under two years	50 00	25 00	15 00
14	Pen three ewe lambs	30 00	20 00	10 00
15	Stock ram and five of his get, over one year	75 00	50 00	25 00
16	Stock ram and five of his get, under one year	75 00	50 00	25 00
	SWEEPSTAKES.			
17	Best two rams and ten ewes over one year	200 00	.....	.....

DIVISION C.—LONG WOOLED.

1	Ram, two years old and over	$100 00	$50 00	$25 00
2	Ram, one year and under two years	75 00	40 00	20 00
3	Ram lamb	50 00	25 00	15 00
4	Pen three ewes, two years and over	75 00	40 00	20 00
5	Pen three ewes, one year and under two years	50 00	25 00	15 00
6	Pen three ewe lambs	30 00	20 00	10 00
	Stock ram and five of his get, over one year, one male and four females	125 00	75 00	50 00
	Stock ram and five of his get, under one year, one male and four females	125 00	75 00	50 00
	SWEEPSTAKES.			
	Two rams and ten ewes	250 00	.....	.....

DIVISION D.—FAT SHEEP.

1	Ten merinos	$100 00	$50 00	.....
2	Ten long or combing wools	100 00	50 00	.....
3	Ten middle wool or mutton	100 00	50 00	.....
4	Best single fat sheep	50 00	.....	.....
5	Best dressed carcass	30 00	20 00	$10 00

* $250 of this sum subscribed by breeders.

NOTE.—Amount of premiums offered under division A, merinos, $2,230; under division B, middle wooled, $2,020; under division C, long wooled, $1,435.

LIST OF PREMIUMS—Continued.

DIVISION E.—GOATS.

Premium list number.	Description.	First premium.	Second premium.	Third premium.
1	Angora, best pen, one buck, three does, over eighteen months old	$50 00	$25 00	
2	Cashmere, best pen, one buck, three does, over eighteen months old	40 00	20 00	
3	Alpaca, best pen, one buck, three does, over eighteen months old	30 00	15 00	

DIVISION F.—SHEPHERD'S DOGS.

[International Collie trials will be held daily on the grounds during the week of the exhibition under the personal direction of the superintendent. In these trials the intelligence and training of the Collie variety of the shepherd's dog will be practically tested, and the success of the competing animals in herding, driving, and penning sheep be made the basis of the awards. Prizes will be awarded in two classes.]

1	All-aged class	$100 00	$50 00	$25 00
2	Puppy class	50 00	25 00	10 00

DIVISION G.—WOOL AND HAIR.

[The report of the Commissioner of Agriculture on the wool and hair exhibited, which has been ordered by the United States Government, will include micro scopic and experimental observations. Printed blanks containing the items of information required of exhibitors for the purposes of the report will be furnished on application to the Secretaries.]

Premium list, No.	Description.	Premium.	Premium list, No.	Description.	Premium.
	MERINO WOOL.			MIDDLE WOOL—continued.	
	Fleece:		15	Best collection ten fleeces	$50 00
1	Best superfine	$20 00	16	Best collection samples	10 00
2	Best XXX	20 00			
3	Best ram's	20 00		LONG WOOL.	
4	Best ewe's	20 00		Fleece:	
5	Best ram's, scoured	20 00	17	Best Lincoln	20 00
6	Best ewe's, scoured	20 00	18	Best Cotswold	20 00
7	Best scoured in proportion to weight of carcass	20 00	19	Best Leicester	20 00
8	Best collection ten fleeces	50 00	20	Best scoured in proportion to weight of carcass	20 00
9	Best collection samples	10 00	21	Best collection ten fleeces	50 00
10	Best sample delaine wool	10 00	22	Best collection samples	10 00
	MIDDLE WOOL.			HAIR.	
	Fleece:		23	Angora, best collection, six fleeces	20 00
11	Best Southdown	20 00	24	Alpaca, best collection, six fleeces	20 00
12	Best Oxfordown	20 00	25	Cashmere, best collection, six fleeces	20 00
13	Best Shropshiredown	20 00			
14	Best scoured in proportion to weight of carcass	20 00			

DIVISION H.—WOOLEN MACHINERY.

1	Best dyer's vat, manual	$5 00	13	Best felting machine, in operation	$50 00
2	Best dyer's vat, mechanical, in operation	20 00	14	Best power knitting machine, in operation	25 00
3	Best wool washer, in operation	30 00	15	Best fulling machine	10 00
4	Best dryer, with heat	15 00	16	Best shears, for cloth	5 00
5	Best dryer, without heat, in operation	15 00	17	Best gig, for raising cloth	5 00
6	Best carding machine, in operation	25 00	18	Best cloth folding-machine	15 00
7	Best comb, for fine wool, in operation	50 00	19	Best apparatus for extracting vegetable coloring substances, in operation	10 00
8	Best comb, for coarse wool, in operation	50 00	20	Best cloth-pressing machine, in operation	15 00
9	Best mule, self acting, in operation	100 00	21	Best collection of instruments for determining the strength and purity of dye liquors	10 00
10	Best loom, Jacquard, for carpets, in operation	100 00			
11	Best loom, Jacquard, for other figured fabrics, in operation	100 00			
12	Best loom, improved harness, in operation	100 00			

DIVISION I.—DYE STUFFS.

1	Best collection aniline dyes	Diploma.	6	Best collection vegetable coloring matters, crude	Diploma.
2	Best sample aniline green	Diploma.	7	Best collection vegetable coloring matters, extracted	Diploma.
3	Best sample aniline black	Diploma.	8	Best sample vegetable coloring matters, extracted	Diploma.
4	Best sample aniline red	Diploma.	9	Best collection mineral dyes and mordants	Diploma.
5	Best sample artificial alizarine	Diploma.	10	Best collection cleansing and bleaching agents	Diploma.

DIVISION K.—WOOLEN FABRICS.

	FOREIGN.			AMERICAN.	
1	Best broadcloth, two pieces, assorted	$25 00	21	Best broadcloth, two pieces, assorted	$25 00
2	Best cassimeres, plain, two pieces, assorted	20 00	22	Best cassimere, plain, two pieces, assorted	20 00
3	Best cassimeres, fancy, two pieces, assorted	20 00	23	Best cassimere, fancy, two pieces, assorted	20 00
4	Best worsted coatings, two pieces, assorted	20 00	24	Best worsted coatings	20 00
4	Best merinos, two pieces, assorted	10 00	25	Best cashmere, cotton and wool, two pieces, assorted	10 00
5	Best cashmere, all wool, two pieces, assorted	10 00	26	Best delaine, cotton and wool, two pieces, assorted	10 00
6	Best delaine, all wool, two pieces, assorted	10 00	27	Best poplin, cotton and wool, two pieces, assorted	10 00
7	Best poplin, all wool, two pieces, assorted	10 00	28	Best bunting, all wool, two pieces, assorted	10 00
8	Best bunting, all wool, two pieces, assorted	10 00	29	Best flannel, all wool, two pieces, assorted	10 00
9	Best flannel, all wool, two pieces, assorted	10 00	30	Best blankets, all wool, two pair	10 00
10	Best blankets, all wool, two pair	10 00	31	Best carpet, Axminster, two pieces	10 00
11	Best carpet, Axminster, two pieces	10 00	32	Best carpet, Wilton, two pieces	10 00
12	Best carpet, Wilton, two pieces	10 00	33	Best carpet, Brussels, two pieces	10 00
13	Best carpet, Brussels, two pieces	10 00	34	Best carpet, tapestry, two pieces	10 00
14	Best carpet, tapestry, two pieces	10 00	35	Best carpet, Venetian, two pieces	10 00
15	Best carpet, Venetian, two pieces	10 00	36	Best carpet, ingrain, two pieces	10 00
16	Best carpet, ingrain, two pieces	10 00	37	Best drugget, two pieces	5 00
17	Best drugget, two pieces	5 00	38	Best felt, two pieces	5 00
18	Best felt, two pieces	5 00	39	Best collection of bleached and dyed yarns, assorted colors	5 00

INTERNATIONAL SHEEP-DOG TRIALS.

DIVISION F.—SPECIAL RULES.

Blank applications for entry may be obtained of the secretaries up to the time of running the trials. The applications containing columns for names, age, sex, color marks, &c., of the dog are to be filled up by the exhibitor. All entries are free, and kennels will be provided for the dogs. No dog can be entered except for trial.

Each dog competing will be required to take five sheep from a pen, drive them a certain distance to another, and pen them there.

A fresh flock of sheep will be provided for each dog. He, in driving, may bark or not as may be his habit, but biting his sheep will be a demerit.

Each shepherd may take his dog over the ground before the sheep are brought in, and show or tell him what he wants him to do.

The shepherd may precede or follow the sheep as he may choose; he will not be permitted to assist his dog except by voice or gesture. Hallooing, berating, or much bidding, or noise, will detract from the estimate of the performance of the dog.

When a dog is working, no other dogs shall be present to distract his attention.

No person except the superintendent in charge, and the members of the jury shall enter the sheep ring while the dog is working.

The jury will carefully note the disposition and docility of the different flocks of sheep, and make due allowance for those which are more wild than others.

Each shepherd will have the privilege of exhibiting the working of his dog by choosing his own kind of work with the sheep, after the regular trial has been completed. He may also show the training of his dog for other practical purposes as a farm or house dog.

Dogs and bitches fifteen months old, or over, must compete in the aged class. Puppies under fifteen months, having competed in the puppy class, will also be eligible for entry in the aged class.

All ties will be run off on flocks of three sheep.

Tractability, ready obedience, steadiness in driving, gentleness in working the sheep, and general aptitude in the dog for the business before him, will have due influence with the jury in making the awards.

CORRESPONDENCE BETWEEN THE PENNSYLVANIA STATE AGRICULTURAL SOCIETY AND THE COMMISSIONER OF AGRICULTURE RELATIVE TO THE INTERNATIONAL EXHIBITION OF SHEEP, WOOL, AND WOOL PRODUCTS OF 1880.

OFFICE OF PENNSYLVANIA STATE AGRICULTURAL SOCIETY,
Harrisburg, February 11, 1880.

MR. COMMISSIONER: In behalf of the Pennsylvania State Agricultural Society, we have the honor to inform you of the intention of the society, to hold an International Exhibition of Sheep and Wool in the Main Centennial Building, Fairmount Park, Philadelphia, in September next.

For more than two years the society, through a committee appointed for the purpose, has been in correspondence on the subject with prominent sheep breeders and wool-growers throughout the country. The opinion expressed by them is earnestly in favor of an international exhibition.

We therefore respectfully and cordially ask your approval of the enterprise, and your influence and co-operation in advancing it.

We cannot doubt that you fully recognize the value of a branch of agriculture which furnishes the most nutritious of meats for home consumption and for exportation, and which also constitutes the basis of a manufacturing industry of the highest importance, and that you moreover regard it as a branch which appeals strongly and deservedly to the fostering care of Government.

The returns from your department show in States North and South, deprived of their fertility by slovenly and wasteful cultivation, that sheep husbandry so well adapted to supply the lost fertility, is scarcely, if at all, on the increase;

That sheep are bred for mutton or for wool only, when both, of fine and desirable quality, may be advantageously produced by means of one and the same animal;

That the benefit resulting from the infusion of pure blood into our native flocks needs to be more widely known, and the practice more generally followed;

That our country is capable of growing every grade of combing and fine wool, and that the 48,000,000 pounds annually imported by our manufacturers can be produced here;

That immense tracts of waste land in the Atlantic and the Western States may be most profitably utilized by the raising of sheep upon them.

The value of the careful and protracted investigations carried on in this and foreign countries in order to determine the conditions most favorable to fecundity, early maturity, palatable flavor of flesh and fineness, soundness, weight, strength, elasticity, length, and luster of the wool can be made manifest by bringing together the best animals and fleeces in an international competitive exhibition.

The year of the census is an eligible one for showing how we compare with other nations in this department of industry. Pennsylvania is centrally and conveniently situated for such an exhibition. Her farmers are awakening to the importance of sheep-husbandry. One of her counties, Washington, has, as you have recently published, "over four hundred thousand sheep, producing as good merino wool as there is in the world." You also published the statement that "the greatest of American inventions and progress in the manufacture of wools is in the production of carpets." We need not remind you that Philadelphia is the center of this branch of manufactures, and that one of her carpet mills employes three thousand hands.

The Main Centennial Building, the grandest and most appropriate structure for the holding of the proposed exhibition has been engaged for the purpose, and sufficient funds for the payment of all expenses, including a liberal and attractive list of premiums, have been secured.

Again asking for this important work of our Society, the influence and co-operation of your Department, we are,

Very respectfully, your obedient servants,

W. S. BISSELL, *President*,
JOHN McDOWELL, *Vice-President*,
ALFRED L. KENNEDY, *Vice-President*,
D. W. SEILER, *Recording Secretary*,
ELBRIDGE McCONKEY, *Corresponding Secretary*,
Committee of Pennsylvania State Agricultural Society.

HON. W. G. LE DUC,
Commissioner of Agriculture, Washington, D. C.

DEPARTMENT OF AGRICULTURE,
Washington, D. C., February 20, 1880.

GENTLEMEN: I acknowledge the receipt of your communication of 11th instant, advising me of the intention of your Society to hold an International Exhibition of Sheep and Wool, in the Main Centennial Building, Philadelphia, in September next.

I do not hesitate to express my hearty approval of the enterprise, and to promise whatever influence and co-operation it may be in my power, individually and through this Department, to afford.

I recognize fully the vast importance of Sheep Husbandry, in its connection with agriculture and the great industrial interests of the country, and I can readily conceive of the advantages which must result from such a competitive exhibition as your Society contemplates, of animals and fleeces and methods of management in the production of wool, which distinguish the industry in the different countries of the world.

Our widespread country, in the possession of natural advantages to an almost unlimited extent, is eminently adapted to the increase of this branch of industry far beyond our own needs for domestic consumption, and in view of the wealth of the nation it is entitled to every encouragement which the Government can legitimately bestow upon it.

I am, very respectfully, your obedient servant,

WM. G. LE DUC,
Commissioner of Agriculture.

Messrs. W. S. BISSELL, *President*,
JOHN MCDOWELL, *Vice-President*,
ALFRED L. KENNEDY, *Vice-President*,
D. W. SEILER, *Recording Secretary*,
ELBRIDGE MCCONKEY, *Corresponding Secretary*,
Committee of Pennsylvania State Agricultural Society.

A BILL to authorize and direct the Commissioner of Agriculture to attend, in person or by deputy, the International Sheep and Wool Show, to be held in the Centennial Buildings, Fairmount Park, Philadelphia, in September, anno Domini eighteen hundred and eighty, and to make full and complete report of the same, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Commissioner of Agriculture be, and he is hereby, authorized and directed to attend in person or by deputy the International Sheep and Wool Show, to be held in the Centennial Buildings, Fairmount Park, Philadelphia, in September, anno Domini eighteen hundred and eighty, and to make a full and complete report of the same.

SEC. 2. All sheep and wool which shall be imported for the sole purpose of exhibition at the international show hereinbefore mentioned, shall be admitted without the payment of duty, or customs fees or charges, under such regulations as the Secretary of the Treasury may prescribe: *Provided*, That all sheep and wool which shall be sold in the United States, or withdrawn for consumption therein at any time after such importation, shall be subject to the duties, if any, imposed on like imports by the revenue laws in force at the date of importation: *And provided further*, That in case any sheep or wool, imported under the provisions of this act, shall be withdrawn for consumption, or shall be sold without payment of the duty required by law, all the penalties prescribed by the revenue laws shall be applied and enforced against such imports and against the person who may be guilty of such withdrawal or sale.

Approved:

RUTHERFORD B. HAYES,
President.

WASHINGTON, *April* 1, 1880.

CONVENTION TO PROMOTE THE SHEEP AND WOOL INDUSTRY.

DEPARTMENT OF AGRICULTURE, *Washington, D. C., August* 12, 1880.

To whom it may concern:

Having been directed by Congress to attend and make a full report of the International Exhibition of Sheep, Wool and Wool Products, to be held in Philadelphia, under the auspices of the Pennsylvania State Agricultural Society, in September next; and having in consultation with the committee of arrangement of the exhibition, concluded that much valuable information could be elicited, profitable alike to those engaged in sheep breeding, wool-growing, and wool-manufacturing, by bringing them together for the mutual interchange of views, the statement of needs, and the presentation and discussion of methods and results: it has been determined to call a convention of persons interested in the afore-mentioned branches of industry, to meet in the Main Centennial Building, Fairmount Park; Philadelphia, **on Wednesday, September 22, 1880, at 11 o'clock, a. m.**

While thus notifying you of the holding of the convention, a cordial invitation is hereby extended to you to attend and participate in the proceedings, either as a representative of the society or association to which you may belong, or in your individual capacity.

The following, among other subjects, are suggested for the consideration of the convention:

Advancement of the general interest of the wool-grower.

Prompt and systematic collection and distribution by this Department, of information concerning the supply of flock products, and the demand for them.

Relative advantages of our sheep-breeding States, and the breeds best adapted to them.

Methods of shearing and handling sheep, and of packing and grading wool for the market.

Increasing the production of the mountain lands of the Atlantic States, by the systematic extension of sheep-husbandry.
Benefits resulting from the introduction of pure blood into our native flocks.
Breeds capable of yielding from a given acreage, the most profitable returns in mutton and wool taken jointly.
Management of sheep in summer and winter—of lambs most profitable for market.
Recent inventions in wool manufacture and their relative importance.
Recent discoveries and inventions in the production of dyes and the art of dyeing—their relative importance.
Grades of wool which this country must produce, in order fully to supply the demands of her looms, and how best to produce them.

WM. G. LE DUC,
Commissioner of Agriculture.

[Circular.—1880. Department No. 34, Secretary's Office.]

IMPORTATIONS FOR THE INTERNATIONAL SHEEP AND WOOL SHOW AT PHILADELPHIA, IN SEPTEMBER, 1880.

TREASURY DEPARTMENT, *Washington, D. C., April* 8, 1880.

To collectors and others:

Your attention is invited to the following provisions of the act approved April 1, 1880, relating to an "International Sheep and Wool Show," to be held at Philadelphia in September of the present year, viz:

"*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That the Commissioner of Agriculture be, and is hereby, authorized and directed to attend in person, or by deputy, the international sheep and wool show to be held in the Centennial buildings, Fairmount Park, Philadelphia, in September, anno Domini eighteen hundred and eighty, and to make a full and complete report of the same.

"SECTION 2. All sheep and wool which shall be imported for the sole purpose of exhibition at the international show hereinbefore mentioned, shall be admitted without the payment of duty or customs fees or charges, under such regulations as the Secretary of the Treasury may prescribe: *Provided*, That all sheep and wool which shall be sold in the United States, or withdrawn for consumption therein at any time after such importation shall be subject to the duties, if any, imposed on like imports by the revenue laws in force at the date of importation: *And provided further*, That in case any sheep or wool imported under the provisions of this act shall be withdrawn for consumption, or shall be sold without payment of the duty required by law, all the penalties prescribed by the revenue laws shall be applied and enforced against such imports and against the person who may be guilty of such withdrawal or sale."

The articles mentioned must be accompanied by consular invoices, and be entered for warehouse in the usual manner. The entry should show the purpose of the importation, and the importer be required to attach his affidavit to the effect that the merchandise is imported for the sole purpose of exhibition, as authorized by the statute.

The buildings specified in the act may be treated, for the purposes thereof, as United States warehouses, from which withdrawals for consumption may be made in the usual manner, after entry therefor, at the custom-house.

No portion of the merchandise can be removed from said buildings except on a permit to be obtained from the collector of customs, and under the supervision of a customs officer. Such permits will be given only on payment of duties, or on withdrawals for transportation or exportation, or on the removal of wool to bonded warehouses.

After the expiration of the month mentioned in the act, the merchandise not entered for consumption, transportation, or (in the case of wool) not placed in bonded warehouse, at the expense of the owners, may be taken possession of by the collector of customs in the usual manner.

Sheep or wool imported at other ports, for the show, may be transported to Philadelphia, under the relations relating to the entry of merchandise for immediate transportation, without appraisement.

The merchandise may be withdrawn for exportation or transportation without payment of duties, and no customs fees or charges will be levied either on entries for exhibition or for exportation; on other withdrawals the usual fees will be collected.

The attention of all parties concerned is invited to the penalties denounced by the act for illegal sales or withdrawals of the merchandise.

By order:

H. F. FRENCH,
Assistant Secretary.

DEPARTMENT OF STATE, *Washington, July* 15, 1880.

To the consular officers of the United States:

GENTLEMEN: I inclose herewith a copy of a circular dated the 8th of April last, and issued by the Assistant Secretary of the Treasury to collectors and others in reference to the provisions of the act of Congress approved April 1, relating to an International Sheep and Wool Show to be held in Philadelphia in September of the current year.

It will be observed therefrom that all sheep and wool imported for the sole purpose of exhibition are to be admitted without the payment of duty or customs fees or charges, under such regulations as the Secretary of the Treasury may prescribe. These regulations are contained in the circular. The articles mentioned must be accompanied by consular invoices, across the face of which it is suggested that consular officers should write a statement that the articles are intended for the exhibition. It will be expected that you should comply with this suggestion in case invoices of the articles adverted to are presented to you for verification.

I am, gentlemen, your obedient servant,

JOHN HAY,
Acting Secretary.

The following is the list of the premiums awarded by the judges in the different classes:

DIVISION A.—MERINOS.

Premium list number.	Description.	Premium.	To whom awarded.	Amount.
1	Ram, over 3 years	1	S. S. Campbell, Cadiz, Ohio	$100 00
		2	Robert Perrine, Patterson's Mills, Pa	50 00
		3	George Hammond, Middlebury, Vt	25 00
2	Ram, over 2 years and under 3	1	John M. Miller, Hickory, Pa	75 00
		2	S. C. Work, Hickory, Pa	40 00
		3	E. Peck & Son, Streator, Ill	20 00
3	Ram, over 1 year and under 2	1	George Hammond, Middlebury, Vt	50 00
		2	McCalmont Glass, Miller & Work	25 00
		3	John M. Miller, Hickory, Pa	15 00
4	Ram lamb	1	Glass & Work	30 00
		2	S. S. Campbell, Cadiz, Ohio	20 00
		3	R. Perrine, Patterson's Mills, Pa	10 00
5	Pen of 3 ewes, 3 years	1	George Hammond, Middlebury, Vt	75 00
		2	Robert Perrine, Patterson's Mills, Pa	50 00
		3	James Glass, Pennsylvania	25 00
6	Pen of 3 ewes over 2 years and under 3	1	John M. Miller, Hickory, Pa	50 00
		2	S. C. Work, Hickory, Pa	25 00
7	Pen of 3 ewes over 1 year and under 2	1	George Hammond, Middlebury, Vt	30 00
		2	S. S. Campbell, Cadiz, Ohio	25 00
		3	Robert Perrine, Patterson's Mills, Pa	15 00
8	Pen of 3 ewes, lambs	1	S. S. Campbell, Cadiz, Ohio	20 00
		2	John M. Miller, Hickory, Pa	15 00
		3	Alexander McCalmont	10 00
9	Stock ram, and 10 of his get	1	George Hammond	125 00
		2	S. C. Work	75 00
10	Stock ram, and 10 of his get, any age	1	James Glass and S. S. Campbell	125 00
11	Pen, 1 ram and 9 ewes	1	W. L. Archer	125 00
		2	John M. Miller	75 00
		3	Robert Perrine	50 00
12	Sweepstakes		W. L. Archer	450 00
13	....do		....do	200 00

DIVISION B.—MIDDLE WOOLS.

	SOUTHDOWNS.			
1	Ram, 2 years old and over	1	T. S. Cooper, Coopersburg, Pa	$100 00
		2	T. S. Cooper	50 00
		3	R. M. Fisher, Danville, Ky	25 00
2	Ram, over 1 year and under 2	1	T. S. Cooper	75 00
		2	....do	40 00
3	Ram lamb	1	R. M. Fisher	20 00
		2	....do	10 00
		3	S. J. Sharpless, Philadelphia, Pa	5 00
4	Pen of 3 ewes, 2 years and over	1	R. M. Fisher	15 00
		2	S. J. Sharpless	75 00
5	Pen of 3 ewes, over 1 year old and under 2	1	Fairmount Park, Philadelphia, Pa	20 00
		2	T. S. Cooper	50 00
		3	....do	25 00
6	Ewe lamb	1	R. M. Fisher	15 00
		2	....do	10 00
		3	....do	5 00
7	Stock ram and his get	1	S. J. Sharpless	10 00
		2	T. S. Cooper	75 00
		3	....do	50 00
	OTHER DOWNS.		R. M. Fisher	
8	Ram, 2 years old and over, Oxforddown	1	T. S. Cooper	100 00
		2	....do	50 00
10	Ram, over 1 year old and under 2, Oxforddown	1	....do	75 00
		2	....do	40 00
		3	....do	20 00
11	Ram lamb, Shropshiredown	1	William Homewood, Newark, Del	50 00
		2	....do	25 00
		3	T. S. Cooper	15 00
12	Pen of 3 ewes, 2 years old and over, Oxforddown	1	....do	$75 00
		2	....do	40 00
13	Pen of 3 ewes, over 1 year and under 2, Oxforddown.	1	....do	50 00
		2	....do	25 00
		3	....do	15 00
14	Pen of 3 ewe lambs, Oxforddown	1	....do	30 00
15	Stock ram over 1 year and 5 of his get, Oxforddown.	1	....do	75 00
16	Stock ram under 1 year and 5 of his get, Oxforddown.	1	....do	75 00
	Sweepstakes		....do	200 00

DIVISION C.—LONG WOOL.

1	Ram, 2 years old and over, Cotswold	1	Abner Strawn, Ottawa, Ill	$100 00
		2	Edward Hicks, Goshenville, Pa	50 00
		3	T. C. Wade, Media, Pa	25 00
2	Ram, over 1 year old and under 2, Cotswold	1	Abner Strawn	75 00
		2	....do	40 00
		3	....do	20 00
3	Ram lamb, Cotswold	1	....do	50 00
		2	....do	25 00
		3	Edward Hicks	15 00
4	Pen of 3 ewes under 2 years old and over 1, Cotswold.	1	Abner Strawn	75 00
		2	....do	40 00
		3	Edward Hicks	20 00
5	Pen of 3 ewes over 1 year and under 2, Cotswold.	1	A. Strawn	50 00
		2	....do	25 00
		3	Edward Hicks	15 00

DIVISION C.—LONG WOOLS—Continued.

Premium list number.	Description.	Premium.	To whom awarded.	Amount.
6	Pen of 3 ewe lambs, Cotswold	1	A. Strawn	$30 00
		2	Edward Hicks	20 00
	Pen of 3 ewe lambs, Lincoln	3	T. C. Wade	10 00
7	Stock ram, of any age, and 5 of his get over 1 year old, Cotswold.	1	Edward Hicks	125 00
	Stock ram, of any age, and 5 of his get over 1 year old, Lincoln.	2	T. C. Wade	75 00
8	Stock ram, of any age, and 5 of his get under 1 year, Cotswold.	1	A. Strawn	125 00
9	Sweepstakes, Cotswold	1	....do	250 00

DIVISION D.—FAT SHEEP.

1	10 merinos	1	No entries	
2	10 long-wools	2	No entries	
3	10 middle wools	1	R. M. Fisher	$100 00
4	Single fat sheep	1	....do	50 00

DIVISION F.—COLLIE TRIALS.

	Dog "Tom"	1	Charles Pugh, Philadelphia, Pa	$100 00
	Dog "Oscar"	2	T. S. Cooper	37 50
		2 and 3	J. W. Downey*	

*Cooper's and Downey's dogs were, in the opinion of the committee, a tie in points requisite for the 2d premium, and in justice to both made the above award. In the other "all-aged stakes," the dogs performed tolerably well; prominent among them for good work was the dog "Lad," owned by George Taylor, of Philadelphia, Pa. In the puppy stakes, T. S. Cooper's "Fannie" is entitled to 1st premium, owing to perfect performance for her age.

First premium, T. S. Cooper "Fannie," $50; second premium, Dr. J. W. Downey.

DIVISION G.—WOOL AND HAIR.

Premium list number.	Description.	To whom awarded.	Amount.
	MERINO WOOL.		
1	Superfine fleece	John McDowell, Washington, Pa	$20 00
2	* * * fleece	....do	20 00
4	Ewes' fleece	....do	20 00
8	Best 10 fleeces	....do	50 00
3	Rams' fleece	S. A. Cockayne, West Virginia	20 00
5	Rams' fleece, scoured	J. W. Hardy, New York	20 00
9	Collections of samples	H. D. Sanborn, Oregon	10 00
6	Ewes' fleece	Peter Martin, New York	20 00
	MIDDLE WOOL.		
10	Collection samples	C. Henry Rooney, Philadelphia, Pa	10 00
11	Southdown fleece	S. J. Sharpless, Philadelphia, Pa	20 00
	LONG WOOL.		
18	Cotswold fleece	A. Strawn, Ottawa, Ill	20 00
17	Lincoln fleece	T. C. Wade, Media, Pa	20 00
21	Collection of Lincoln fleeces	T. C. Wade	10 00
22	Collection of Cotswold samples	H. D. Sanborn, Oregon	10 00

EXAMINATION OF WOOL AND OTHER ANIMAL FIBERS.

CHAPTER I.

HISTORY AND RESULTS OF THE EXHIBITION OF SHEEP, WOOL, AND WOOL PRODUCTS, HELD IN PHILADELPHIA IN SEPTEMBER, 1880.

At the close of the Universal International Exhibition of 1876 a strong feeling of dissatisfaction prevailed among the sheep-breeders and wool-growers of this and other countries, concerning the character of the work accomplished there and the results flowing from it. As time passed this dissatisfaction in this country strengthened among those who had been more directly interested, and it finally ripened into energetic action, with a view to the inauguration of an international exhibition of the products of sheep-husbandry, and of the methods and apparatus employed in preparing them for human consumption.

Many of those most forward in this work were to be found among the breeders of what is known as the wool-growing district of Western Pennsylvania, Southeastern Ohio, and West Virginia, and their feeling in the matter began to take definite shape in the course of the preparations for the annual fair of the Pennsylvania Agricultural Society to be held in the Centennial buildings in Philadelphia in the autumn of 1879. During the meetings of the executive committee of this society from time to time in that year the matter was fully discussed, and correspondence was opened with prominent sheep-breeders and wool-growers, and with the several sheep-breeders' and wool-growers' associations in different parts of the country, asking their opinions with regard to the advisability of such a course, and the result of this was the expression of a general desire that such an exhibition be held.

It was the first intention of the Agricultural Society to hold a national exhibition, but it was afterwards decided that the subject was one of such importance as to warrant making the exhibition an international one, and in order to carry out the plan proposed, that of holding it under the auspices of the Pennsylvania Agricultural Society and in connection with one of its annual fairs, it was finally decided to hold it in connection with the fair of 1880. In due time, therefore, the committee of arrangements to prepare for the International Exhibition of Sheep, Wool, and Wool Products was appointed, instructed, and organized, clothed with all necessary power. This committee, consisting of Mr. William S. Bissell, president; John C. Morris, Alfred L. Kennedy, D. W. Seiler, John McDowell, William H. Engle, and Elbridge McConkey, determined that the exhibition should be held in the Centennial buildings in Philadelphia immediately after the close of the annual fair of the State Agricultural Society, to be held in the same place in September, 1880. Under date of February 11, 1880, the committee of arrangements informed this Department of the intention of the society, asking its approval of the enterprise and its influence and co-operation in advancing it. This approval, together with the assurance of all the influence and co-operation within the power of the Department, was heartily given.

At about the same time an appeal was made to Congress to authorize and direct the Commissioner of Agriculture to attend the exhibition, in person or by deputy, and make a full and complete report of the same. This appeal also asked for the establishment of such customs regulations as would provide for the convenient entry of any exhibits that might be sent from foreign countries. As a consequence Congress enacted a law, approved April 1, 1880, giving the Commissioner the desired authority and direction, and providing that all sheep and wool imported for the sole purpose of exhibition, and not sold or withdrawn for consumption in the United States, should be admitted without the payment of duty or any customs fees or charges, under such regulations as the Secretary of the Treasury should prescribe. In pursuance of these latter provisions the Secretary constituted the Centennial buildings in Philadelphia, in which the exhibition was held, a bonded warehouse, and detailed an officer to superintend the entry of articles from foreign countries thereto. The immediate connection of the Department of Agriculture with the exhibition began shortly after the approval of the above-mentioned act by the President.

About April 10 there were received ten thousand copies of a circular embodying the correspondence between the committee of arrangements appointed by the Pennsylvania Agricultural Society and the Commissioner of Agriculture, and a copy of the act of Congress already referred to. It was requested that the Department should distribute these circulars to the agricultural and wool-growers' societies and Department correspondents, and, through the Department of State, to all ministers and consuls of the United States resident in foreign countries, for the information of the respective Governments and peoples.

But as the circular contained no announcement to all people of all nations of the intention of holding the exhibition, and no invitation to take part in it, and as it was desirable that it should be accompanied with copies of the regulations for the government of the exhibition, the system of classification and the list of premiums offered, it was considered better to withhold its distribution until the further documents could be obtained.

Upon application for them the Department was informed that no formal invitations to foreign Governments had been sent out; that it was understood that such an invitation would be sent out by the Department of State, and in absence of any action by the Department of State, this Department was further requested to give advice as to the method of extending the invitation in question. In response to this request it was suggested that there be at once prepared a document containing—

First. An announcement of the time and place of holding the exhibition, and a general invitation to the people of all nations interested in the production of sheep, wool, and woolen materials, and of machinery, apparatus, and processes of manufacturing the latter, to take part in the exhibition.

Second. A statement of the system of classification of animals, products, machinery, apparatus, &c., to be exhibited.

Third. A list of prizes offered for superiority in each class.

Fourth. Specification of the information required with the exhibits in each class.

Fifth. General regulations to govern the exhibition.

Expedition in the matter of preparing this document for distribution was strongly urged on account of the limited time intervening previous to the opening of the exhibition, and it was at once prepared, but printing it was delayed on account of a desire on the part of the committee of arrangements to embody in it a copy of the circular of regulations relative to entry of foreign exhibits at our ports and an announcement by the Secretary of the Treasury that the exhibition building would be constituted a bonded warehouse. The document comprising regulations and premium list and embodying a general invitation to the people of all nations to take part in the exhibition was not received for distribution until June 30, when it was at once sent out by the Department to all the agricultural and wool-growers and sheep-breeders' societies and associations, to correspondents and reporters of the Department in the different parts of the United States, and to all the ministers, consuls-general, and consuls residing in foreign countries, with the request that the facts contained in it be disseminated among the people with whom they respectively came in contact.

On or about May 5 a conference was had in this Department with representative members of the committee of arrangement, in the course of which the Department was requested to name gentlemen from different sections of the country to be invited to become members of a national committee of co-operation to act in conjunction with the committee of arrangement in carrying out the objects of the Exhibition, viz, the promotion of the interests of sheep-breeding and wool-production, and better defining the relation between producers and manufacturers by bringing the results of labor in all branches of the industry together in one great exhibition. In addition to the gentlemen who had already been chosen by the committee of arrangement, the Department nominated William G. Markham, Avon, N. Y.; E. J. Hiatt, Chester Hill, Ohio; Hon. James T. Earle, Centreville, Md.; John L. Hays, Boston, Mass.; John J. B. Killebrew, Nashville, Tenn.; C. P. Mattox, Portland, Me.; Henry C. Kelsey, Trenton, N. J.; Albert Chapman, Middlebury, Vt,; F. W. Shaeffer, San Diego, Tex.; Hon. Henry G. Davis, Piedmont, W. Va.; J. T. Megibbin, Cynthiana, Ky.; Daniel Kelly, Wheaton, Ill.; Hon. Thomas Pollard, Richmond, Va.; J. S. Stanger, Denver, Colo.; Benjamin Flint, San Juan, Cal.; Samuel Archer, Kansas City, Mo.; Charles R. Gibbs, Whitewater, Wis.; J. P. Sanborn, Port Huron, Mich.; Hon. David Blaine, Toronto, Ontario, and Hon. Edward A. Bernard, Quebec.

Letters were at once addressed to these gentlemen by the Department, announcing its action in nominating them, and asking them to confirm this action by accepting the position. All the gentlemen named promptly communicated their acceptance, and were referred to the committee of arrangement for instructions as to what was expected at their hands. On July 25, the Department received from the committee of arrangement a request that it should name gentlemen considered competent to act as judges, and whose appointment to act in that capacity would be satisfactory to the Department; and in response to this request the following gentlemen were named: John L. Hays, Boston, Mass.; George W. Bond, Boston, Mass.; A. M. Garland, Springfield, Ill.; Richard Peters, Atlanta, Ga.; John D. Patterson, Westfield, N. Y.; Samuel Archer, Kearney, Mo.; William G. Markham, Middlebury, Vt., and Charles W. Jenks, Boston, Mass. Most of these gentlemen were invited to act as judges in the different classes, and four of them performed efficient service during the exhibition.

The animals and objects to be exhibited were separated by the system of classification into eleven divisions, as follows:

A.—Merinos.
B.—Middle-wooled sheep; (*a*) Southdowns; (*b*) other middle-wooled.
C.—Long-wooled sheep.
D.—Fat sheep.
E.—Goats.
F.—Shepherds' dogs.
G.—Wool and hair: (*a*) merino wool; (*b*) middle wool; (*c*) long wool; (*d*) hair.
H.—Woolen machinery.
I.—Dye-stuffs.
K.—Woolen fabrics: (*a*) foreign; (*b*) American.

The total amounts of money offered for prizes in the several divisions were as follows:

A	$2,230	G	550
B	2,000	H	755
C	1,435	I	(*)
D	560	K	405
E	180		
F	260	Total	7,975

On the 3d of August the committee met with the executive committee of the Pennsylvania Agricultural Society to discuss the feasibility and advisability of holding a convention for the consideration of various conditions affecting the sheep and wool industries. It was the opinion of some of the members of the executive committee that while the members of the committee of co-operation, the judges who would be chosen, and the breeders, wool-growers and manufacturers who would exhibit, were present in the city during the exhibition, a fit opportunity would be offered for a mutual interchange of views, the statement of needs, and the presentation and discussion of methods and results in the branches in which those present were severally interested, and that much valuable information could be elicited in this way. These views were accepted by the executive committee, and the Commissioner of Agriculture agreed to issue a call to convene in the main Centennial building, Fairmount Park, Philadelphia, on Wednesday, September 22, 1880, at 11 o'clock a. m.

The printed call was accompanied by a list of subjects which had been suggested for consideration, and the whole was distributed among all the agricultural societies, sheep-breeders and wool-growers, and manufacturers' associations, the correspondents of the Department of Agriculture, and to gentlemen of prominence in the branches of industry to be represented. The hope was expressed that such a convention would prove profitable alike to those engaged in sheep-breeding, wool-growing, and wool-manufacturing.

Such, then, were the preparations for the exhibition in which the Department was in any way concerned. It acted as adviser in all matters in which advice was asked, and co-operated with the Pennsylvania Agricultural Society in every way in its power to advance the interests of the exhibition and the welfare of those engaged in the great industry to be represented.

The Exhibition was officially opened according to arrangement, at 12 o'clock, noon, on Tuesday, September 21, 1880, with appropriate ceremony. All the animals and articles to be exhibited were in place and duly entered and recorded, and the judges in the several classes were ready for work. There were in all 32 separate entries of sheep, but of these only 24 lots were exhibited in the several classes. The breeds represented were the Merino, Southdown, Oxforddown, Hampshiredown, Shropshiredown, Cotswold, and Lincoln, and included 366 animals, worth, in the aggregate, $85,000. In the class of shepherds' dogs there were 9 exhibitors of 13 dogs. In the class of wools there were exhibited 60 fleeces and 75 samples, besides four lots of graded wools from various sources.

In the classes of machinery and dyes there were but 4 exhibitors. They included 2 exhibits of looms with improved harness motion, 1 of a drying and tentering machine, 1 of centrifugal hydro-extractors, and 1 of a collection of dyes.

The aggregate amounts of money awarded in premiums in the various divisions were as follows:

Division A	$2,035	Division F	$250
Division B	1,795	Division G	310
Division C	1,240	Division H	115
Division D	150		
Division E	(†)	Total	5,895

It is greatly to be regretted that with the exception of one flock of Southdown sheep from Canada no animals or articles were received for exhibit from foreign countries, and this can only be explained by the fact that the invitations extended to the people of all nations to take part in the Exhibition were not sent out until July 1, leaving insufficient time for the necessary preparation and for transportation. For the same reason probably the number of exhibits from the United States were smaller than was hoped for or expected—only seven of the States being represented; these were Vermont, New York, Pennsylvania, West Virginia, Ohio, Illinois, and Oregon.

Among the breeds of sheep the Merinos were present in the largest numbers. Most of the animals exhibited in this class were descendants of the famous Atwood family, of the Humphrey importation of Spanish sheep of 1802, and were good representatives of their class. In only two cases was it necessary for the judges to rule animals out of competition on account of the provision in the regulation that to compete animals must be qualified by undisputed descent for entry in a recognized sheep-breeders' register. These were the sheep exhibited by Mr. Daniel

* Diplomas. † No entries.

Kelly, of Wheaton, Ill., and one ram belonging to Mr. Frank T. Spivey, of Fair View, Hancock County, West Virginia. In the first of these cases it was claimed by the exhibitor that his sheep were directly descended from the Crowninshield importation from Spain, or to other Spanish importations. But the evidence as to purity of blood was unsatisfactory to the judges, and the animals were consequently excluded from competition in the class in which they were entered. Similar considerations governed the action of the judges in excluding some of the animals of the exhibit of Frank T. Spivey.

In the work of the judges as well as in the collection of information for making the report and carrying on the work by the Agricultural Department, each exhibitor was requested to give full and complete data concerning the conditions of breeding, feeding, and care of the animals, together with the samples of the wool of each taken from different parts of the body. At the time the animals were examined by the judges they were weighed and compared with the weights of their respective fleeces in grease, showing the average yield in wool in pounds for each animal to be, for rams 19 per cent. the weight of the carcass, and for ewes 17 per cent. the weight of the carcass. For ewes the weight of carcass varied between 64 and 99 pounds, and for rams between 92 and 146 pounds. From the weights taken it appears that the maximum average is reached only after the second year's growth. Relations of this kind will be compared with the length of the staple, the fineness and strength of the fiber, &c., and with the conditions of climate and feeding to which the animal has been subject; this latter statement applies also to the long and middle wool sheep exhibited. For the coarse-wooled breeds it was difficult to secure the same extent of data.

From those we were able to secure, however, we may construct the following table showing the comparative weights of the animals and the average weight of fleece yielded by each breed expressed in percentages of weights of animals:

Breed.	Weight of rams.	Weight of ewes.	Average weight of fleece expressed in percentages of weights of carcasses.	
			Rams.	Ewes.
	Pounds.	*Pounds.*		
Southdown	154 to 246	149 to 182	6.6	6.6
Oxfordown	233 to 318	175 to 248	■	■
Shropshiredown	124 to 176	.....	■	■
Cotswold	161 to 245	150 to 155	7.3	8.3
Lincoln	134 to 250	100 to 172	5.3	5.5

This table shows for itself, to a limited extent at least, the comparative value of the several breeds for the production of both mutton and wool, both as regards each other and in relation with the merinos. In pursuance of the provision made by act of Congress for testing wools and other animal fibers exhibited, samples of wool were taken from all the fleeces and from large numbers of the animals. Some difficulty was experienced in securing them from the latter source, from the fact that during the greater portion of the week the exhibitors were busily engaged with the judges, who were making the examinations and comparisons of the sheep, and the work was, therefore, necessarily hindered and delayed.

But notwithstanding these difficulties, about 500 samples were secured, and nearly all are accompanied by complete data concerning the conditions of breeding, feeding, and care of the animals that might have had any effect upon them. Representative animals from the different flocks were also taken out and photographed by the instantaneous process, and from the negatives thus secured illustrations will be produced showing the outward peculiarities of typical individuals of the several breeds represented in the Exhibition. In all 32 photographs were secured. In this connection it is proper that we should express our thanks to the officers of the Pennsylvania Agricultural Society and to the judges for the very efficient aid rendered in securing the information and samples to which we have referred.

The Convention to Promote the Sheep and Wool Industries, to be held in connection with the Exhibition, met at the appointed time. Gentlemen placed their names on the rolls as members or delegates. Original papers upon the subjects named in the call were presented by Mr. A. M. Garland, Springfield, Ill., president of the National Wool Growers' Association; Mr. W. G. Markham, Avon, N. Y., president of the New York Wool Growers' Association; Mr. John L. Hayes, president of the National Association of Wool Manufacturers; Mr. Henry C. Kelsey, Trenton, N. J.; Dr. Thomas Pollard, commissioner of agriculture of Virginia, Richmond; and nearly all the questions mentioned, and many others of interest to breeders, wool-growers, and manufacturers alike, were freely discussed by the members present.

The interest manifested in this convention and Exhibition is shown in the frequent requests already made to this Department for reports upon them, and for directions as to where to purchase the best breeds of sheep and as to the best sources of information concerning the relative advantages of the different sections of the country to sheep-breeding and wool-growing.

CHAPTER II.

EXAMINATION OF WOOLS.

THE MATERIAL AND ITS SOURCES.

By act of Congress approved June 16, 1880, an examination of wools and other animal fibers by the Department of Agriculture was provided for in the following terms:

For testing, by scientific examination, the textile strength, felting capacity, and other peculiarities of the different wools and other animal fibers on exhibition at the International Sheep and Wool Exhibition to be held in Philadelphia in 1880, four thousand dollars.

The Exhibition in question was held in Philadelphia September 20 to 25, 1880, inclusive, and in compliance with directions, I was present and made the collection of material necessary to the examination contemplated in the law. The examination thus ordered was considered to apply to wool from the animals exhibited, as well as that included in bales or fleeces, and since the quantity of clipped wool exhibited was comparatively small as regards number of exhibits, the series of samples secured represented the animals more extensively than the wool, a fact which has proven very satisfactory in our investigations, because of the extended information we were able to secure with the samples, and the important and interesting relations it has been possible to work out from the data thus afforded. An attempt was made to secure this information in the greatest detail, but this proved impracticable from various causes, the principal of which resides in the fact that so few of our American breeders, and especially those represented in our collections, keep careful written records of the conditions of breeding and management beyond a register of pedigree. In answer to inquiries made upon the several points here involved, therefore, the exhibitors of animals were forced to rely entirely upon memory, and in many cases they had given little or no attention to some of the important considerations upon which reliable information would have proved of almost inestimable value in the determination of relations existing in the results of our examinations. However, there was, of course, no difficulty in securing perfectly reliable data as to breed, sex, age of animal, and date of last shearing, while in some cases, as we shall see later on, the kind and daily rations of food, form a part of our record.

As already intimated, the exhibits of fleece wool were very limited. On the other hand, among the live animals most of the more important breeds were represented. There were Cotswold, Lincoln, Southdown, Hampshiredown, Shropshiredown, Oxforddown and Merino. The animals had all been shorn in the preceding spring, and the fleece they bore was a little more than half a year's growth. Yet it was considered quite sufficient for the purposes of comparative examination, and we had no hesitation therefore in taking it. From the fleeces and bales single samples were taken, but from the animals concerning which it was possible to secure fuller information with reference to the conditions influencing the production of wool, four samples were taken, and these were cut as nearly as possible from the same parts of the shoulder, side, hip, and belly, respectively. The object of this selection, as will appear later on, was to provide for determinations of differences in the quality of the fiber in different parts of the fleece considered to justify the division into which the fleece is usually classified by graders both in this country and abroad, and to satisfy the desire s of the exhibitors who wished to establish their claims to the even character of the wool from the different parts of the bodies of the animals they were breeding, and to furnish exact data concerning the characteristics of the fiber of each breed. In some cases also in which the skin of the Merino was greatly folded, and this quality is well known to be very common in the "American" type, samples were taken from the tops of the wrinkles or folds and from between them. We thus secured material for the determination of the fineness of the fiber in each part, a matter that has been the subject of no inconsiderable amount of controversy among breeders of "wrinkly" and "even" animals. The parts of the fleece just mentioned were considered sufficient to represent the different qualities of wool available for commercial work or determined by conditions of breeding and management. To have extended the selection to other parts of the fleeces or to have adopted more complete division of the fleece into the grades of quality that have been adopted by German and French experts for the products passing through their hands or the yield of their own flocks, would have required too much work

for the facilities at our command, and more than would be required by the breeders, or even of the American manufacturers, who at present aim at the production of goods of medium degrees of fineness rather than of the superfine grades, such as issue largely from the European looms.

There were in all about 300 animals on exhibition, and though, as the results of our investigations have shown, much valuable information could have been gained by taking samples from all, this would have been impracticable from several causes. The selections were therefore made to a large extent from animals considered by the judges worthy of prize, while at the same time samples were taken from the animals of each exhibitor. Each sample as soon as taken was inclosed in a separate envelope, upon which was inscribed a number corresponding with the number of the description of the sample in the catalogue in which the information given by each exhibitor concerning the animals selected was recorded. This information was furnished in response to the queries given in the following blank form:

Number of samples, ——.
Breed of animal, ——.
Register number or name, ——.
Gender, ——.
Age, ——.
Weight of carcass, ——.
Weight of fleece in grease, ——.
Weight of second fleece, ——.
How scoured, ——.
Age of staple, ——.
Animal pastured or stabled, ——.
Time for each, ——.
Method of feeding, ——.
Daily quantities of food, ——.
Character of soil, ——.
Topography of country, ——.
Prevailing winds, ——.
Frequency and force of same, ——.
Influence of climate on animal, ——.
Name of exhibitor, ——.
Post-office, ——,
County, ——.
State, ——.
General remarks, ——.

This applies more especially to the fine wools (Merinos) though the same method of collection was followed in the case of the coarse and long wools. But in connection with the latter we were favored with the assistance of the judges in the corresponding classes, who undertook to clip samples of wool from the leading animals presented to them for examination. They followed the same plan adopted in connection with the Merinos, that is, of taking samples from the different parts of the fleece, shoulder, side, hip, and belly, respectively, while at the same time they caused to be filled, as far as possible, the blanks of a form for giving information concerning the conditions of breeding, feeding, and management of the animals.

Premium list number, ——.
Name of breeder, —— ——.
Breed of sheep, ——.
Flock register, name and number, ——.
Book register, name and number, ——.
Date of birth, ——.
Sex, ——
Weight of sheep, ——.
Condition of sheep, ——
Weight of fleece in grease, ——.
Date of last shearing, ——
Length of stubble, ——.
Number of sheep in flock, ——.
Number of months at pasture:
  During year, ——.
  Since last shorn, ——.
Number of months foddered:
  During year, ——
  Since last shorn, ——.
Kind of hay or fodder fed, ——.
Number of months fed grain:
  During year, ——.
  Since last shorn, ——.
Average amount of grain daily for each:
  During year, ——.
  Since last shorn, ——.
Kind of grain:
  During year, ——.
  Since last shorn, ——.
Cottonseed-cake, oil-cake or meal, flaxseed, peas, or beans fed:
  During year, ——.
  Since last shorn, ——.
Kind of roots fed:
  How? ——.
  When? ——.
Salt, sulphur, ashes, chalk, &c., fed:
  How? ——,
  When? ——.
Average weight of fleeces of flocks in grease, ——.
Character of soil on which sheep were raised (whether limestone, clay, slate, or sand), ——.
Topography of country, ——.
Latitude, ——.
Altitude above sea-level, ——.
Length of staple, ——; shoulder, ——; side, ——; hip, ——.
Additional measurements, ——.
Any additional particulars.

They also caused many of the animals to be weighed, and the records of this operation, in connection with the other information, added very materially to the value of the samples collected. By this means we were enabled to secure an exceedingly interesting and valuable series, and our acknowledgments are due these gentlemen for their courteous and efficient assistance.

In addition to the material obtained at the Exhibition, it was considered of importance to secure an examination, in connection with these wools of known breed, of those of the commercial grades, and we were able, through the generous assistance of Mr. J. D. Whitham, of Valley Grove, W. Va., to obtain full collections representing the principal commercial grades of the markets of Boston and Philadelphia, which may be said to govern the wool trade of the United States. These were selected with the utmost care by gentlemen of large experience in wool grading, and may, therefore, be accepted without reserve as fully representing the leading characteristics of

the several grades. And besides these, also we have been so fortunate as to secure from Mr. William G. Markham representative samples of the different grades of wool established by German wool-growers and merchants, to be studied in connection with those of American origin. Mr. Markham's contributions, as may be seen below, also contained samples of the staple from some of the leading flocks of France, and one from probably the only pure-bred Merino flock of England. The whole collection, represented in the results we are now able to present, is of great interest as showing in many particulars as regards the fine wools, the characteristics impressed upon the Merino type in each of the countries named.

As already stated, and as may be seen from what we have to present, the information we were able to obtain concerning the conditions of breeding, feeding, and management, of the animals represented in our collections, was not all that could reasonably be desired; but we have considered it on some accounts advisable to collect here the principal points presented by each exhibitor, for the benefit of those who may wish to give the possible relations more careful study than we have been able as yet to devote to them, as well as for the better elucidation of some of the points to which attention will be called in our results. The statements included below are intended to cover the general information secured in our inquiries, rather than the age and pedigree of each animal, the latter being given in the catalogue of samples, to be found in the subsequent pages.

Cotswolds.—Abner Strawn, Ottawa, La Salle County, Illinois, a breeder of Cotswolds. Most of the animals exhibited were recent importations; so little or no reliable information was obtainable concerning their previous feeding and management. The country over which they were expected to range is flat, the soil loam, with tolerably strong winds prevailing from the West.

Edward Hicks, Goshenville, Pa., breeder of Cotswolds, had a flock of 60 sheep which were shorn May 13, 1880. The animals exhibited were pastured four to six months and foddered six or seven months, timothy hay being the fodder fed. During about two months of the year they were fed a pint a day of a mixture of bran and oats with no other kind of concentrated food. A mixture of salt and sulphur was constantly accessible to them. The average weight of the fleece in grease for the flock was 11⅛ pounds. The ranges were upon rolling land and a soil of clay.

Lincolns.—Thomas C. Wade, Media, Pa., breeder of Lincolns. The animals exhibited were shorn May 20, 1866, giving nine to eleven pounds of brook-washed wool. They were pastured from the date of shearing to September 1, and during the remainder of the year were foddered upon a mixture of hay, cornstalks, and cabbage. They were fed about three quarts of oats per day during six weeks in the fall but, with that exception, received no grain or other concentrated food throughout the year. In winter they were fed upon turnips washed and cut, and always had salt accessible to them.

Downs.—T. S. Cooper, Coopersburg, Pa., is a breeder of Oxforddowns and Southdowns. The animals exhibited were mostly imported from England. They had been shorn April 20, 1880. They were pastured seven months of the year, but received throughout the year daily rations of 2 pounds of clover hay and 1 pint of a grain mixture consisting of equal parts of oats, peas, and beans, and occasionally they were given a small quantity of flaxseed cake. About 6 months of the year (during the winter) they were fed with mangolds which were preserved in pits, sometimes as late as July, and usually dried about four days in the sun before feeding. Rock salt was supplied the flock *ad libitum*, while sulphur was occasionally mixed with the feed. The flock gave an average yield of 10 pounds of wool in grease, per head. They ranged upon limestone land located in a valley.

R. M. Fisher, Danville, Ky., breeder of Southdowns. The animals exhibited had been shorn April 25, 1880. They were pastured throughout the year and were stalled only at lambing time. In some years it was found necessary to supply them with fodder for about one month, though in many years they received none whatever. When supplied, a mixture of clover hay and sometimes a little corn fodder was fed. Grain was given only about two months, though it was not a common practice. After being shorn, however, the animals exhibited were fed grain at the rate of one quart per day per head up to the time of exhibition. The grain food consisted of a mixture of equal parts of corn and oats, and besides this a daily ration of one pint of oil-cake meal was given in addition. The weight of fleeces in grease for the flock varied between eight and ten pounds. The country in which the animals were grown is mountainous, and the farm on which they ranged rolling, with a soil of clay loam.

S. J. Sharpless, Philadelphia, Pa., breeder of Southdowns. The animals exhibited were shorn May 15, 1880. As far as possible and when not prevented by snow in winter, they were pastured throughout the year, but as a general rule ten months was the average extent of the period of pasturage. During about four months in winter they were foddered upon mixed clover hay and received daily rations of one quart of oats and half a pint of wheat bran. Beets and turnips also were fed to the ewes after lambing at the rate of half to three-quarter pounds. The proportion of turnips fed exceeding that of the beets. Rock salt was always accessible.

Fairmount Park Association, Philadelphia, Pa., breeders of Southdowns. The animals exhibited were shorn the first week in May as closely as possible. They were pastured during seven months, but after August 6, 1880, they had been penned because of their range being in the park, but the principal object was to prepare them for exhibition. During the remaining five months of the year they were foddered with mixed hay, though clover is much preferred by the managers. As a rule the flock was fed grain about six months of the year, beginning with a ration of a half pint per day for each animal which was continued until the lambing season, when it was increased

to one quart. The grain mixture fed consisted of eight parts oats, six parts bran, and four parts corn. No concentrated foods such as oil-cake, &c., nor roots of any description were fed. Sulphur is mixed with the feed at the rate of one pound per week as needed, while salt was always accessible to the animals to take as desired. The yield of fleece in grease by the whole flock was seven pounds eleven ounces, with limits of eleven and a half and four pounds. The country over which the animals ranged is rolling and the soil a slaty clay.

William Homewood, Newark, Del., breeder of Shropshire and Hampshire downs. The animals exhibited were shorn about May 20, 1880. They were pastured during seven months of the year, and during the remainder foddered upon clover hay. Throughout the latter period they received daily rations of one quart of a mixture of oats and corn, with no oil-cake or other concentrated foods, but in the winter months they were fed upon sliced mangolds. Throughout the entire year they had constant access to salt in boxes, but received no sulphur, ashes, or other like material. They ranged over level land upon a soil of clay loam.

George Hammond, Middlebury, Vt. Flock sheared April 1, 1880. Pastured about five and a half months, and foddered the remainder of the year upon herds grass containing a little clover. During eight months of the year the animals received a daily ration of one pint of oats part of the time, and the remainder of the year the same quantity of a mixture of oats and bran. Salt and sulphur are constantly administered to all except breeding ewes in winter. The country in which the animals were bred is hilly and rolling and the soil clay. The flock gave an annual yield of 12 pounds wool.

William L. Archer, Burgettstown, Pa., a breeder of Spanish Merinos descended from the Humphrey importation. His flock is pastured about seven and a half months, and during the remainder of the year foddered on mixed clover, timothy, and blue-grass hay. It was also fed daily with about a half pint of a mixture of two parts oats, one part corn, and one part bran, and had continual access to a mixture of ten parts salt, one part ashes, and one part sulphur. The country is hilly but mostly tillable, and the soil a mixture of limestone, clay, and sandy loam. The average yield of wool for the flock was twelve pounds.

John M. Miller, Hickory, Washington County, Pa. A breeder of Merinos of Atwood descent. In winter the flock is stabled, but during the summer months is pastured. During six months of the year it is fed grain at the rate of one peck per day for fifty head, the mixture being two parts oats, one part corn, and one part wheat bran. The country over which the sheep ranged is hilly, but the land all tillable and the soil sandy clay loam underlaid with limestone. The prevailing winds are southwest and mild and are considered very favorable to the animals.

Alex. McCalmont & Sons, Hickory, Pa. Breeders of Merinos of the Humphrey importation of 1802. The flock was sheared on the first Saturday of April, 1880. It was pastured seven months of the year, and for the remainder was foddered with mixed clover and timothy hay. During the second period each animal received a daily ration of about a half pint of a mixture of two-thirds corn and oats, and one-third bran, and during the first period the same quantity of a mixture of oats and bran. The country over which the sheep ranged is hilly, but all tillable and the soil limestone. The average yield of wool for the flock is ten and a half pounds.

S. S. Campbell, Cadiz, Ohio, breeder of Merinos. The animals exhibited were sheared April 2, 1880. They were pastured about eight months of the year, and received dry fodder about four months in a mixture of clover and timothy hay. They also received daily rations of about half a pint of mixture of mill feed and oats, and for about two weeks some sugar-beats. Salt was given twice a week and a mixture of sulphur and ashes once a month. The soil on which the sheep were pastured is limestone and sandstone, and the country partly hilly.

S. C. Work. Sheep shorn April 17, 1880. His animals are pastured throughout the year, and have access to a mixture of three-quarters timothy and one-quarter clover. About eight months of the year they receive daily rations of about one pint of mixed oats and bran. During the winter they are fed a few mangolds. They have continual access to salt, and receive sulphur and ashes once a month. In 1879 the average yield of wool for the flock was twelve and a quarter pounds. The country is somewhat hilly and the soil limestone.

James Glass, Burgettstown, Pa., breeder of Merinos. Follows same rules as Archer.

Robert Perrine, Patterson Mills, Washington County, Pennsylvania, breeder of Merinos of Atwood descent. The animals exhibited had been shorn April 15 previous. They were pastured about seven months of the year, and were foddered on mixed timothy and clover hay nearly six months; that is, part of the time they had access to hay at night. They received grain most of the year at the rate of about one-half pint mixed corn and oats daily, with a ration of salt twice a week and of ashes semi-monthly. Sometimes they were fed on mixed corn and wheat with a little wheat bran. The soil of the land upon which the sheep ranged and were pastured is limestone, and part of it creek bottom. The country somewhat hilly. The prevailing winds of the section are southwest, tending to north in the winter, the latter having an unfavorable influence upon the health of the animals.

Frank P. Spiney, Fairview, Hancock County, West Virginia. Flock sheared April 7, 1880. Pastured nine months, and received fodder four months as mixed timothy and clover hay. During eight months they received daily rations of half a pint of mixed corn and oats, and every other day salt is mixed with the food. The country represented is rolling or hilly and the soil clay. The average yield of the flock twelve and three-quarter pounds (1879).

Daniel Kelly, Wheaton, Ill., breeder of Spanish Merinos of the Crowninshield importation, but the flock is not registered. It was shorn April 23, 1880, pastured 7½ months, and the remainder of the year foddered upon timothy hay. It receives a daily ration equivalent to 1 bushel of corn per 100 head. As a hygienic measure it is also fed with a mixture of 1 quart ashes and 1 quart salt. When the grass is too fresh in winter it is always fed with a mixture of half a pound copperas and 1 peck of salt. The country is rolling and the soil on clay.

E. Peck & Sons, Geneva, Ill., breeder of Spanish Merinos. Flock sheared May 10, 1880. Pastured 7 months, and foddered 5 months with mixed clover and timothy hay. During four or five months the sheep are fed with 1 pint of mixed corn and oats, and salt once a week. The average yield of the flock is 12 pounds, 1880. The country is slightly rolling prairie, and soil part loam, part clay, underlaid with gravel.

Of the wools exhibited little or no information concerning the animals yielding it could be obtained. That shown by Mr. McDowell, of Washington, Pa., was of Merino type, descended from the Wells and Dickinson flocks of southwest Pennsylvania and northern West Virginia, so doubtless of Saxon or Silesian blood. The samples sent from Oregon were labeled with the facts given in our catalogue given below. In the latter we have endeavored to present all the facts concerning the animal represented in each sample examined that could be well shown in a tabulated statement. But before giving this catalogue it will be of interest to present some of the data obtained from measurements upon the bodies of the animals, made by the judges in each class. These measurements, as may be seen below, show the weights and sizes of the animals and the length of the staple on different parts of the body, to show the thickness of the fleece. In the following tables giving these data we have given with each set under the head of each breed the name of the owner or exhibitor, the register number or name of the animal represented, and its age and sex. By these facts the data given may be compared with the measurements of the wool given in the tables of our results in this branch.

The weights of the animals need no explanation. They were taken with the animals in fleece as exhibited. The length of staple was taken by parting the fleece at the parts represented and measuring its depth with an ordinary foot rule. The other measurements were taken with tape measure. The shoulder girth was taken as closely as possible to the fore-leg, and the flank girth as near to the hind-leg as possible. The length of body represents the distance from between the ears to the root of the tail. The figures thus obtained will be of especial interest for the comparison of the several breeds named. They show the relative development of the animals at different ages with a very considerable degree of accuracy, and though a larger number of measurements would be desirable, those here given will be of value because they are reliable, and may, we hope, stimulate such measurements for comparison on the part of others.

Weight and age of certain animals represented.

Owner.	Sex.	Register number.	Weight.	Age.	Weight of fleece.
	COTSWOLD.				*Pounds.*
A. Strawn, Ottawa, Ill.	Ram	365	300	3½ years	
	do	372	273	1½ years	
	do	363	[illegible]	do	
	do	364	251	do	
	do	368	134	7 months	
	do	369	122	6 months	
	do	[illegible]	123	do	
	Ewe	247	236	2½ years	
	do	248	[illegible]	2 years	
	do	170	232	do	
	do	247	[illegible]	do	
	do	243	240	do	
	do	164	245	do	
	do	244	221	do	
	do	[illegible]	246	do	
	do	161	215	do	
	do	[illegible]	222	do	
	do	158	[illegible]	do	
	do	492	171	1 year	
	do	439	177	do	
	do	430	147	do	
	do	443	178	do	
	do	437	177	do	
	do	428	171	do	
	do	446	172.5	do	
	do	429	166	do	
	OXFORD.				
T. S. Cooper, Coopersburg, Pa.	Ram	Freeland	287	6 years	14
	do	Prince of the West.	[illegible]	2 years	
	do	50	223	1 year	
	do	20	258	do	
	do	[illegible]	226	do	
	do	16	97	6 months	
	Ewe		174	4 years	
	do		248	2 years	
	do		215	1 year	
	do		171	do	
	do		159	do	
	do		132	6 months	

Owner.	Sex.	Register number.	Weight.	Age.	Weight of fleece.
	SOUTHDOWN.				*Pounds.*
R. M. Fisher, Danville, Ky.	Ram	2	246	4 years	11
	do	[illegible]	[illegible]	1 year	[illegible]
	do	1	97	6 months	
	Ewe	33	[illegible]	2½ years	8
	do	[illegible]	149	1½ years	9½
	do	52	147	do	8½
	do	[illegible]	89	6 months	
S. J. Sharpless, Philadelphia, Pa.	Ram	Stalwart	190	2½ years	11½
	do	[illegible]	168	3 years	11½
	do	27	[illegible]	do	11½
	do	54	168	2 years	11½
	do	53	154	do	11½
	do	191	[illegible]	1 year	
	do	[illegible]	132	do	
	do	[illegible]	[illegible]	7 months	
	Ewe	86	136	2 years	
	do	202	101	1 year	
	do	2	[illegible]	8 months	
	SHROPSHIRE.				
William Homewood, Newark, Del.	Ram		178	1½ years	9
	HAMPSHIRE.				
William Homewood.	Ram		124	6 months	
	LINCOLN.				
Thomas C. Wade, Media, Pa.	Ram		250	5½ years	16
	do		192	2½ years	9½
	do		154	1½ year	[illegible]
	do			5 months	
	Ewe		172	2½ years	[illegible]
	do			do	[illegible]
	do			do	9
	do		101	6 months	
	Ram		[illegible]	5 months	

Weights and ages of certain animals represented—Continued.

Owner.	Sex.	Register number.	Weight.	Age.	Weight of fleece.
	SOUTHDOWN.				
T. S. Cooper	Ram		273	2 years	
	....do		252	3 years	
	....do		213	1 year	14
	....do		190	....do	16
	Ewe		171		
	....do		173	1½ years	13-15
	....do		144		
Fairmount Park Association.	Ram	7	213	3 years	9
	....do	1	[illegible]	6 months	
	Ewe	1	[illegible]	3 years	[illegible]
	....do	50	123	6 months	
	COTSWOLD.				
A. Strawn, Ottawa, Ill.	Ewe	No mark	167	1 year	
	....do	381	119.5	Lamb	
	....do	383	109	....do	
	....do	385	104	....do	
	....do	386	116.5	....do	
	....do	388	102	....do	
	COTSWOLD—continued.				
A. Strawn, Ottawa, Ill.—Continued.	Ewe	389	97	Lamb	
	....do	387	124	....do	
	....do	384	138	....do	
	....do	382	111	....do	
	Ram		279	3½ years	
Edw. Hicks, Goshenville, Pa.	....do		245	2½ years	15
	....do		161	1½ years	15
	....do			....do	15
	....do		97	6 months	
	Ewe		161	2½ years	15
	....do			....do	13
	....do			....do	13
	....do		165	....do	13
	....do			2 years	13
	....do			2½ years	13
	....do		152	1½ years	13.5
	....do		150	....do	13.5
	....do		151	....do	13.5
	....do		*79	4 months	
	Ram		106	4½ years	12

*Triplets.

Dimensions of the animals exhibited.

COTSWOLD.

Owner.	Number or name.	Sex.	Age.	Shoulder girth.	Flank girth.	Length of body.	Girth of fore leg.	Girth of hind leg.
				′ ″	′ ″	′ ″	″	″
Edward Hicks		Ram	3½ years	4 7	4 6	3 11½	15½	16½
Do		....do	2½ years	4 0	4 0	3 9	15	17½
Do		....do	1½ years	3 4	3 3	3 7	16	17
Do		....do	6 months	2 9	2 7	3 4	14½	17
A. Strawn	385	....do	3½ years	4 11	4 7½	4 4	17	18
Do	372	....do	1½ years	4 6	4 1	4 2½	18	19
Do	363	....do	....do	4 3	4 0	4 2	16	16
Do	364	....do	....do	4 3	3 10	4 2	16	18
Do	368	....do	7 months	3 3½	3 4	3 7½	16	18
Do	369	....do	6 months	3 1	3 ½	3 4½	15	17
Do	387	....do	....do	3 0	3 0	3 5	15½	17

LINCOLN.

T. C. Wade		Ram	5½ years	4 8	3 11	4 0	[illegible]	18½
Do		....do	2½ years	3 8	3 7	3 10	[illegible]	15
Do		....do	1½ years	3 5	3 4	3 3½	16½	17
Do		....do	5 months	2 10	2 8½	2 10	13	15
Do		....do	1½ years	3 4	3 2	3 6	15½	17½

SOUTHDOWN.

T. S. Cooper		Ram	3 years	4 11	4 10	4 1		
Do		....do	2 years	5 1	4 10	4 0		
Do		....do	1 year	4 8	4 8	3 7		
Do		....do	....do	4 7	4 7	4 6		
Do		Ewe	1½ years	4 7½	4 2½	3 2½		
Do		....do	....do	4 5	4 3	3 1½		
Park Commission		....do	3 years	3 6	3 10	3 6		
R. M. Fisher	2	Ram	4 years	4 10	4 10	4 9		
Do	4	....do	1 year	4 5	4 5	4 6		
Do	1	....do	6 months	3 6	3 7	3 4		
Do	33	Ewe	2½ years	3 10½	3 11½	3 6		
Do	54	....do	1½ years	4 3	4 3½	3 8		
T. S. Cooper	64	....do	6 months	3 5	3 6	3 0		
Do	67	....do	....do	3 6	3 7	3 3		
S. J. Sharpless		....do	3 years	3 6	3 9½	3 1		
Do	2	....do	7 months	3 4	3 6	3 3		

HAMPSHIRE.

William Homewood		Ram	6 months	4 0	4 3	3 8		
Do		....do	....do	3 11	4 0	3 5		

OXFORD.

T. S. Cooper	Freeland	Ram	6 years	5 1	5 0	4 5		
Do	Prince of the West	....do	2 years	5 10	5 8	4 0		
Do	50	....do	1 year	4 11	4 11	4 0		
Do	20	....do	....do	5 2	5 2	3 11		
Do	13	....do	....do	5 4	5 4	4 3		
Do		....do	6 months	3 11	4 1	3 3		
Do		Ewe	4 years	4 5	4 9	3 7		
Do		....do	2 years	5 6	5 4	3 10		
Do		....do	1 year	5 3	4 11	3 5		
Do		....do	....do	4 0	4 3	3 4		
Do		....do	....do	4 9	4 10	3 6		
Do		....do	6 months	4 5	4 4	3 5		

Depths of staple of certain animals represented.

SOUTHDOWN.

Owner.	Number or name.	Sex.	Age.	Shoulder.	Side.	Hip.	Belly.
				Inches.	*Inches.*	*Inches.*	*Inches.*
T. S. Cooper		Ram	2 years	1¾	1¾	1¾	1 15/16
Do		do	3 years	1 15/16	1¾	1¾	1¾
Do	17	do	1 year	1¾	1¾	1¾	1¾
Do	22	do	do	1	1	1¾	1
Do		Ewe	1½ years	2	1¾	1¾	¾
Do		do	do	1¾	1¾	¾	1¾
Park Commission		do	3 years	1¾	1¾	1¾	¾
R. M. Fisher	2	Ram	4 years	1¾	1¾	1¾	1¾
Do	4	do	1 year	1¾	1¾	1¾	1
Do	1	do	6 months	1¾	1 15/16	1¾	1 15/16
Do	33	Ewe	2½ years	1¾	1¾	1¾	1
Do	54	do	1½ years	1¾	1¾	1¾	¾
Do	64	do	6 months	1¾	1¾	1¾	1¾
Do	67	do	do	1¾	1¾	1¾	1¾
S. J. Sharpless		Ram	7 months	1¾	1¾	2	1¾
Do		do	do	1¾	1¾	1¾	1
Do		Ewe	3 months	1¾	1	1	¾
Do	2	do	6 months	1¾	2	2	1¾

HAMPSHIRE.

William Homewood		Ram	6 months	2¼	2¼	2	2
Do		do	do	2¾	2¾	2	1¾

OXFORD.

T. S. Cooper	Freeland	Ram	6 year	2¼	2	1¾	1¾
Do	Prince of the West	do	2 years	2¾	2¾	2¾	1¾
Do	50	do	1 year	2¾	2¾	2¾	2
Do	[illegible]	do	do	2¾	1¾	2¾	2
Do	13	do	do	[illegible]	2¾	2¾	2¾
Do		do	6 months	[illegible]	3	2¾	2¾
Do	55	Ewe	3 years	2¾	2¾	2¾	2¾
Do	23	do	4 years	2¾	2¾	2¾	1¾
Do		do	1 year	2¾	2¾	[illegible]	2¾
Do		do	do	3	3	2¾	2¾
Do		do	do	2¾	2¾	[illegible]	2
Do		do	6 months	[illegible]	[illegible]	3¾	2¾

The following tabular statement constitutes the catalogue of the samples of wool collected at the Exhibition and elsewhere, and examined in accordance with the provisions of the law, with the results detailed further on. In this catalogue we have aimed to include only such data as might show the origin of the sample as regards breed, age, and sex of the animal represented, and the contributor, and must refer the reader to the previous pages for the facts concerning the feeding and management of the animals represented. It will be seen that we have been especially indebted to Mr. J. D. Whitham, of Valley Grove, W. V., and Mr. William G. Markham for material of a commercial character, the study of which has added greatly to the interest and value of our work. Further than this the catalogue will explain itself.

Catalogue of samples of wool collected at the International Exhibition of Sheep, Wool, and Wool Products.

Catalogue number of sample.	Breed of animal.	Register number or name.	Gender.	Age.	Weight of [illegible]	Weight of fleece in grease.	Age of staple.	Name and address of exhibitor.
					Pounds.	*Pounds.*		
34	Cotswold	372	Ram	Yearling		18	5 months	A. Strawn, Ottawa, Ill.
35	do	365	do	3 years			do	Do.
36	do	368	do	6 months	154			Do.
37	do	382	Ewe	Lamb				Do.
38	do	249	do	2 years		17	5 months (April 2)	Do.
39	do	[illegible]	do	Yearling	147		5 months	Do.
[illegible]	do							— Reed, Oregon.
[illegible]	do							Do.
170	do						5 months	E. Hicks, Goshenville, Pa.
171	do		Ewe	Lamb			do	Do.
172	do		Ram	do			do	Do.
173	do		do	do	196		do	Do.
174	do		do	1 year	181		do	Do.
175	do		do	2 years	245		do	Do.
176	do		do	do	279		do	Do.
177	do		Ewe	do	161		do	Do.
178	do		do	do	163		do	Do.
179	do		do	1 year			do	A. Strawn, Ottawa, Ill.
180	do		do	2 years			do	Do.
181	do		do	do			do	Do.
182	do		do	do			do	Do.
183	do		do	Lamb			do	Do.
184	do		Ram	1 year			do	Do.
185	do		do	Lamb				Do.
186	do		do	2 years	300		5 months	Do.
187	do		Ewe	Lamb				Do.
188	do							Do.
189	do		Ewe	1 year				Do.
190	do		do	2 years			5 months	Do.
191	do		do					Do.

Catalogue of samples of wool collected at the International Exhibition of Sheep, Wool, and Wool Products—Continued.

Catalogue number of sample.	Breed of animal.	Register number or name.	Gender.	Age.	Weight of carcass.	Weight of fleece in grease.	Age of staple.	Name and address of exhibitor.
					Pounds.	*Pounds.*		
113	Leicester							—— Reed, Oregon.
114	do							Do.
59	Lincoln		Ram	5½ years		13½	4 months (May 20)	T. C. Wade, Media, Pa.
60	do		Ewe	2 years		9½	5 months (April 20)	Do.
61	do		do	Lamb	120		5 months	Do.
164	do		do	do			do	Do.
165	do		Ram	do			do	Do.
166	do		do	2 years			do	Do.
167	do		do	1 year			do	Do.
168	do		Ewe	2 years			do	Do.
169	do		do	do			do	Do.
191	do						do	Do.
25	Southdown						do	S. J. Sharpless, Philadelphia, Pa.
*62	do		Ram	2 years			do	T. S. Cooper, Coopersburg, Pa.
*63	do		Ewe	1 year			do	Do.
91	do	31	do	2 years	155		do	R. M. Fisher, Danville, Ky.
92	do	57	do	1 year			do	Do.
93	do	26	do	3 years	180		do	Do.
94	do	40	do	1 year	100		do	Do.
95	do		do	6 months			do	Do.
132	do		Ram	3 years			do	T. S. Cooper, Coopersburg, Pa.
133	do		do	2 years			do	Do.
134	do		do	4 years			do	R. M. Fisher, Danville, Ky.
135	do		do	1 year			do	Do.
136	do		do	do			do	Do.
137	do		do	do			do	Do.
138	do		do	Lamb			do	Do.
139	do		do	do			do	S. J. Sharpless, Philadelphia, Pa.
140	do		do	do			do	Do.
141	do		Ewe	2 years			do	R. M. Fisher, Danville, Ky.
142	do		do	do			do	S. J. Sharpless, Philadelphia, Pa.
143	do		do	do			do	Fairmount Park, Philadelphia.
144	do		do	1 year			do	T. S. Cooper, Coopersburg, Pa.
145	do		do	do			do	Do.
146	do		do	do			do	R. M. Fisher, Danville, Ky.
147	do		do	do			do	Do.
148	do		do	Lamb			do	Do.
149	do		do	do			do	S. J. Sharpless, Philadelphia, Pa.
162	Hampshire		Ram	do			do	William Homewood, Newark, Del.
163	do		do	do			do	Do.
*64	Oxford		Ewe	1 year			do	T. S. Cooper, Coopersburg, Pa.
65	do		Ram	2 years			do	Do.
66	do	20	do	1 year			do	Do.
*67	do	12	do				do	Do.
107	do							—— ——, Oregon.
108	do							Do.
150	do		Ram	2 years			6 months	T. S. Cooper, Coopersburg, Pa.
151	do		do	6 years			do	Do.
152	do		do	1 year			do	Do.
153	do		do	do			do	Do.
154	do		do	do			do	Do.
155	do		do	Lamb			do	Do.
156	do		Ewe	2 years			do	Do.
157	do		do	do			do	Do.
158	do		do	1 year			do	Do.
159	do		do	do			do	Do.
160	do		do	do			do	Do.
161	do		do	Lamb			do	Do.
8	Merino		do					P. Martin, Rush, N. Y.
9	do		Ram					J. W. Hardy, New York
10	do							—— ——, Oregon.
11	do							Do.
12	do							Do.
13	do							Do.
21	do		Ram					S. A. Cochran, West Virginia.
22	do							R. H. Russell, Washington, Pa.
23	do		Ram					John McDowell, Washington County, Pa.
26	do		Ewe					R. H. Russell, Washington County, Pa.
27	do		Ram					Do.
28	do		Ewe					Do.
29	do							R. Perrine, Patterson's Mills, Pa.
30	do	182	Ram	2 years	156	28½	5½ months	F. P. Spivey, Fairview, W. Va.
31	do	159	Ewe	1 year			do	G. Hammond, Vermont.
32	do	167					do	Do.
33	do	145					do	Do.
40	do	20	Ewe				do	John M. Miller, Hickory, Pa.
41	do	23	do	1 year		12	5½ months (April 6)	Do.
42	do	204	do	do			5½ months	S. S. Campbell, Cadiz, Ohio.
43	do	208	do	do			do	Do.
44	do	205	do	do			do	Do.
45	do	64	do	5½ months			do	John M. Miller, Hickory, Pa.
46	do	114	do	2 years		13½	5½ months	Do.
47	do	Centennial	Ram	4 years	144	24½	5 months	Do.
48	do	Boom	do	2 years	128	27	5½ months	Do.
49	do	72	Ewe	3 years			do	S. S. Campbell, Cadiz, Ohio.
50	do	54	do	do			do	Do.
51	do	42	Ram	1 year	128	20½	5 months	F. P. Spivey, Fairview, W. Va.
52	do	102	Ewe	5 years			do	Do.
53	do	207	Ram	2 years	110	15	5 months	E. Peck & Sons, East Geneva, Ill.
54	do	Club	do	3 years	123	22⅞	do	D. Kelly & Son, Wheaton, Ill.
55	do	Tom	do	do	123	22½	do	Do.
56	do	Queen	Ewe	5 years	117	21½	3 months (June 1, 1880)	Do.
57	do	Kit	do	2 years	171	17½	4 months	Do.
58	do		do	do	70	14	4½ months	E. Peck & Sons, East Geneva, Ill.
68	do		Ram					R. Perrine, Patterson's Mills, Pa.
69	do	Success	do	6 years	137	25	4 months	S. C. Work.
70	do	149	Ewe	2 years			do	Do.
71	do	1	Ram	do			5 months	W. L. Archer, Burgettstown, Pa.
72	do	2	do				do	Do.
73	do	Excelsior	do	4 years	137½	22	do	A. McCalmont, Washington, Pa.
74	do		Ewe	1 year			do	Do.

* Imported.

Catalogue of samples of wool collected at the International Exhibition of Sheep, Wool, and Wool Products—Continued.

Catalogue number of sample.	Breed of animal.	Register number or name.	Gender.	Age.	Weight of carcass.	Weight of fleece in grease.	Age of staple.	Name and address of exhibitor.
					Pounds.	*Pounds.*		
75	Merino	204	Ewe	1 year				S. S. Campbell, Cadiz, Ohio.
76	..do	208	...do	...do				Do.
77	...do	122	...do	5 months				Do.
78	...do	273	Ram	...do				A. McCalmont, Washington County, Pa.
79	...do		...do	Lamb				R. Perrine, Patterson's Mills, Pa.
80	...do	49	Ewe	4 years				J. Glass, Burgettstown, Pa.
81	...do	58	...do	3 years				Do.
82	...do	Randolph	Ram	1 year				McCalmont & Glass, Washington County, Pa.
83	...do	582	Ewe	...do				W. L. Archer, Burgettstown, Pa.
84	...do	503	...do	4½ years			4½ months	Do.
85	...do	562	...do	2 years				Do.
86	...do	159	...do	1 year				G. Hammond, Middlebury, Vt.
87	...do	160	...do					Do.
88	...do	46	...do	3 years				Do.
89	...do	Julian, 83	Ram	1 year				Do.
90	...do	Rams, 200	...do	7 years				Do.
96	...do		Ewe					John McDowell, Washington, Pa.
97	...do			17 months				Do.
98	...do		Ewe					Do.
99	...do		Ram					Do.
99a	...do		Ewe					Do.
100	...do		...do					Do.
101	...do							Do.
102	...do		Ewe					Do.
103	...do		...do					Do.
104	...do		Ram	6 years				Do.
104a	...do		...do	...do				Do.
192	...do							J. D. Whitham, Valley Grove, W. Va.
193	...do							B. F. Cocktill, Nashville, Tenn.
235	...do							Samuel Archer, Kearney, Mo.
1	Spanish Merino		Ewe	5 years	75	38½	1 year	L. P. Clark, Addison, Vt.
5	...do	22	Ram	3 years	120	29½	...do	A. Chapman, Middlebury, Vt.
105	...do		Ewe					—— Guthrie, Oregon.
106	...do		Ram					Do.
115	...do			2 years				—— Newby, Oregon.
116	...do			...do				Do.
117	...do		Ram		32			Do.
118	...do		...do		22			Do.
119	...do		Ewe					—— Guthrie, Oregon.
120	...do		...do					Do.
121	...do		Ram		47½			—— Newby, Oregon.
121a	...do							—— ——, Oregon.
122	...do		Ram	2 years				—— Newby, Oregon.
124	...do		...do					—— Guthrie, Oregon.
125	French Merino		...do					Do.
126	...do		Ewe					Do.
127	...do		...do					—— Newby, Oregon.
2	Saxon Merino		Ewes	3 years	75		1 year	Jno. McDowell, Washington, Pa.
3	Silesian Merino		Ram	...do	110		4½ months	Carl Hein, Red Hook, N. J.
4	...do		Ewes	4 to 5 years	[illegible]			Do.
6	Australian Merino.		Ram					Jno. L. Currie, Australia.
7	...do		Ewe					Do.
16	...do							
111	Cotswold and Leicester.							—— ——, Oregon.
10	Cotswold and Southdown.							—— ——, Ohio.
125	One-half Cotswold and one-half Merino.							—— Newby, Oregon.
15	...do							
20	Cotswold and Merino.							—— ——, Wyandotte, Ohio.
24	...do							Bullock & Wunde, Wyandotte, Ohio.
14	Cotswold and Australian Merino.							—— ——, Australia.
126	Seven-eighths Leicester and one-eighth Merino.							—— Newby, Oregon.
128	Seven-eighths Spanish and one-eighth Australian Merino.							—— ——, Oregon

[Wools submitted by C. H. Roney, Philadelphia, Pa.]

190	Cotswold							Canada.
191	...do							Do.
208	...do							Do.
207	Lincoln		Ram					J. H. Augers, Collin's Grove, South Australia.
208	...do			Hoggets				Do.
209	...do		Wether					W. J. Browne, Moorak, South Australia.
210	...do			Lamb				Do.
211	...do		Ewe					Do.
212	...do			Hoggets				Do.
213	Oxford							Canada.
	Merino		Ewe					A. McFarland, Wellington Lodge, South Australia.
214	...do		...do					Haywood, Armstrong & Co., Wonoka, South Australia.
215	...do			Hoggets				Do.
216	...do		Wether					Do.
217	...do			Lamb				Do.
218	...do		Ewe					W. Crozier, Adelaide, South Australia.
219	...do		Ram					Joseph Keyne, Keyneton, South Australia.

Catalogue of samples of wool collected at the International Exhibition of Sheep, Wool, and Wool Products—Continued.

Catalogue number of sample.	Breed of animal.	Register number or name.	Gender.	Age.	Weight of carcass.	Weight of fleece in grease.	Age of staple.	Name and address of exhibitor.
					Pounds.	*Pounds.*		
220	Merino		Wether					Price & Brown, Wilpena, South Australia.
221	....do			Hoggets				Do.
222	....do			Lambs				Do.
223	....do		Ewe					Do.
224	....do							J. H. Augers, Collin's Grove, South Australia
225	....do							Do.
226	....do			Lamb				Do.
233	.. do		Ram					John Murray, Adelaide, South Australia.
204	Spanish Merino							Spain.
205	....do							Do.
206	Cluny							Do.
207	....do							Do.
208	Silesian Merino		Wether					Hungary.
209	....do		....do					Do.
210	....do		Ewe					Do.
211	....do		....do					Do.
212	....do							Do.
234	Leicester and Lincoln.							Thomas Graham, Adelaide, South Australia.
*202								Canada.
203	Goat hair							Russia.
†17	Combing, half-bred.							Ohio.
†18	....do							Do.
†130								East Oregon.
†131								Do.

* Black. † Imperfect.

[Boston grades (imperfect) contributed by J. D. Whitham, Valley Grove, W. Va.]

Catalogue number of sample.	Grade or breed.	Remarks.	Catalogue number of sample.	Grade or breed.	Remarks.
237	No. 2		249	Delaine, unwashed	
238	No. 1		250	Spanish Merino	
239	Picklock		251	Picklock	
240	XXX		252	XXX	
241	Delaine, fine		253	XX	
242	Delaine, medium		254	X	
243	Combing, coarse		255	No. 1	
244	Combing, medium		256	No. 2	
245	XX		257	Delaine, fine	
246	X		258	Delaine, medium	
247	Delaine, fine		259	Combing, medium	
248	Delaine, medium		260	Combing, coarse	

[Wools contributed by J. D. Whitham, Valley Grove, W. Va.]

261	Merino	Wools from flock of Wells & Dickinson, of 1828–'29.	296	XXX, low	Full blood
262	.....do		297	XX, good	
263	.....do		298	XX, clothing	
264	.....do		299	XX, low	
265	.....do		300	X, good	
266	.....do		301	X, fair	
267	.....do		302	X, low	
268	.....do		303	Delaine, fine	
269	.....do		304	Delaine, very fine	
270	.....do		305	X and above	
271	.....do		306	.....do	
272	.....do		307	.....do	
273	.....do			*Quarter-blood series.*	
	BOSTON GRADES		308	Quarter-blood, good	
274	Between X and I		309	Combing	Weak; so made clothing.
275	Fine, unwashed		310	Combing, low	
276	Fine, from dead sheep			*Three-eighths blood series.*	
277	Picklock		311	Three-eighths blood, good	
278	XXX		312	Combing	
279	XX			*Three-eighths and one-half blood series.*	
280	X		313	Three-eighths and one-half blood series	
281	No. 1			*One-half blood series.*	
282	No. 2		314	One-half blood, high	
283	Delaine, fine		315	One-half blood, regular	Boston No. 1, or general medium.
284	Delaine, medium		316	Combing, washed	
285	Combing, fine			*Five-eighths blood series.*	
286	Combing, medium		317	Five-eighths blood	
287	Combing, coarse		318	Cotts	
288	Common		319	Saxon, imported	
289	New Mexico		320	Saxon, domestic	
	PHILADELPHIA GRADES.				
290	Picklock, best	Full blood.			
291	Picklock, fair				
292	Picklock, medium				
293	Picklock, low				
294	XXX, extra				
295	XXX, good				

Catalogue of samples of wool collected at the International Exhibition of Sheep, Wool, and Wool Products—Continued.

[German grades contributed by W. G. Markham, Avon, N. Y.]

Catalogue number of sample.	Grade.	Remarks.	Catalogue number of sample.	Grade.	Remarks.
321	Super superelecta		334	Tertia	
322	do		335	Quarta	
323	Superelecta		336	High-pedigree wool	
324	do		337	do	
325	I electa		338	Ancient pedigree, pure bred	
326	do		339	Impure bred wool	
327	II electa		340	French ram	
328	do		341	Rambouillet	
329	I prima		342	English merino	
330	do		343	Australian ewe	
331	II prima		344	Roger ram	
332	do		345	Rambouillet ewe	
333	Secunda		346	do	

[Miscellaneous samples received from various sources.]

Catalogue number of samples.	Breed of animals.	Register number or name.	Gender.	Age.	Name and address of exhibitor.
347	Merino		Ewe	Lamb	Samuel Archer, Kearney, Mo.
348	do		do	do	Do.
349	do		Ram	1 year	Do.
350	do		do	2 years	Do.
351	do		Ewe	do	Do.
352	do		do	do	Do.
353	do		do	do	Do.
354	do		do	do	Do.
355	do		do	do	Do.
356	do		do	do	Do.
357	do		do	do	Do.
358	do		do	do	Do.
359	do		do	do	Do.
360	do		Ram	3 years	Do.
361	do		do	4 years	Do.
362	do	[illegible]	do	2 years	J. T. Rich, Elba, Mich.
363	do	73	do	do	Do.
364	do	111	do	1 year	Do.
365	do	109	Ewe	3 years	Do.
366	do	118	do	do	Do.
367	do	139	do	2 years	Do.
368	do	141	do	do	Do.
369	do	157	do	1 year	Do.
370	do	142	do	do	Do.
371	do				W. G. Markham.
372	do				Do.
373	do				Do.
194	Angora goat				F. Stronzel, Martinez, Cal.
195	do			Spring kids	M. S. Cochrill, Nashville, Tenn.
196	do			Aged	Do.
197	do				R. Peters, Atlanta, Ga.
382	do				Robert W. Scott, Frankfort, Ky.
383	do		Ram	2 years	William Patchette, Frankford, Mo.
384	do				Isaac S. Diehl, Asia Minor.
385	do			1 year	
386	do			6 months	
387	do		Ewe	1 year	
388	do				L. Zavalla, Argentine Republic.
389	do				C. Segvaña, Argentine Republic.
390	do				Acclimatation Society, Victoria, Australia.
391	do				Robert W. Scott, Frankfort, Ky.
392	Cashmere goat				—— ——, Rattlesnake Place, Cal.
393	do				L. B. Thornton, Tuscumbia, Ala.

[Silks submitted by Prof. C. V. Riley, Agricultural Department, Washington, D. C.]

374	Yellow Japanese				C. V. Riley, Washington, D. C.
375	do				Do.
376	Riley's yellow			Race fed 11 years on maclura.	Do.
377	Riley's white			do	Do.
378	Wasmuch's black Thibet				Do.
379	Crozier's French				Do.
380	Crozier's French, black (larvæ white).				Do.
381	Crozier's French, (larvæ black).				Do.

PLATES SHOWING REPRESENTATIVE ANIMALS EXHIBITED.

In the following plates we present reproductions from photographs of several of the representative animals exhibited by different breeders, believing that they will prove both interesting and valuable in the comparison of the results to be given further on. The photographs were taken at the close of the Exhibition, and some allowance must therefore be made for any apparent defects in condition of the animals, should any be noticed.

List of figures in Plates I to VIII, inclusive.

No.	Subject.	Age.	Register number or name.	Name of exhibitor.
1	Cotswold ram	3 years	365	A. Strawn.
2	....do	1 year		Do.
3	Cotswold ewe	....do		Do.
4	Lincoln ram	5 years	Dignity	T. C. Wade.
5	Lincoln ewe	2 years		Do.
6	Lincoln lamb			Do.
7	Southdown ram	1 year		T. S. Cooper.
8	....do		— 2	R. M. Fisher.
9	Southdown wether			Do.
10	Southdown ewe		40	Do.
11	Southdown ram		Stalwart	S. P. Sharpless.
12	Southdown ram lamb		1	Fairmount Park.
13	Southdown ewe lamb		64	Do.
14	Oxforddown ram		Prince of the West	T. S. Cooper.
15	Merino ram		Saint Julien, 83	George Hammond.
16	Merino lamb		Gwendola, 167	Do.
17	....do		Model, 145	Do.
18	....do	1 year	Daisy, 159	Do.
19	Merino ram	2 years	2	W. L. Archer.
20	....do	....do	1	Do.
21	Merino ewe	....do	503	Do.
22	Merino ram	3 years	Ed. Hammond	Campbell & Glass.
23	....do	4 years	15	—— McCalmont.
24	....do	2 years	Boon	J. M. Miller.
25	....do	6 years	Success	S. C. Work.
26	Merino		Bush, 207	Peck & Sons.
27	Merino ewe	2 years	Town Ewe, 19	Do.
28	Merino ram	....do	Smuggler, 182	F. P. Spivey.

No. 1 Cotswold Ram, 3 years old, Reg No 366, Exhibited by Abner Strawn, Ottawa, Ills.

No. 3 Cotswold Ewe, 1 year old, Exhibited by Abner Strawn, Ottawa, Ills

No 2 Cotswold Ram, 1 year old, Exhibited by Abner Strawn, Ottawa, Ills

No 4. Lincoln Ram, "Dignity," 5 years old Exhibited by T C Wade, Media, Pa

REPRESENTATIVE ANIMALS EXHIBITED IN THE
INTERNATIONAL EXHIBITION OF SHEEP, WOOL AND WOOL PRODUCTS,
PHILADELPHIA, 1880

PLATE I.

UNIVERSITY OF CALIFORNIA
LIBRARY

No 5 Lincoln Ewe, 5 Years Old Exhibited by Thos C Wade, Media, Pa

No 7. Southdown Ram, 1 Year Old Exhibited by T C Cooper, Coopersburg, Pa

No 6 Lincoln Lamb Exhibited by T C Wade, Media, Pa

No 8 Southdown Ram Reg No 2. R M Fisher, Danville, Ky

REPRESENTATIVE ANIMALS EXHIBITED IN THE
INTERNATIONAL EXHIBITION OF SHEEP, WOOL AND WOOL PRODUCTS,
PHILADELPHIA, 1880

PLATE II.

LIBRARY
OF THE
UNIVERSITY
OF
CALIFORNIA

No. 9. Southdown Wether. Exhibited by R. M. Fisher, Danville, Ky.

No. 11. Imported Southdown Ram "Stalwart" Property of S. J. Sharpless, Philadelphia, Pa.

No. 10. Southdown Ewe. Reg. No. 40. Exhibited by R. M. Fisher, Danville, Ky.

No. 12. Southdown Ram Lamb. Reg. No. 1. Exhibited by Fairmount Park Association, Philadelphia, Pa.

REPRESENTATIVE ANIMALS EXHIBITED IN THE
INTERNATIONAL EXHIBITION OF SHEEP, WOOL AND WOOL PRODUCTS,
PHILADELPHIA, 1880

UNIVERSITY OF CALIFORNIA

No. 13. Southdown Ewe Lamb Exhibited by Fairmount Park Association, Philadelphia, Pa

No. 15 Merino Ram "St Julien" Reg No 63 Exhibited by Geo Hammond, Middlebury, Vt

No 14. Oxforddown Ram "Prince of the West." Exhibited by T S Cooper, Coopersburg, Pa.

No. 16. Merino Lamb "Gwendola" Reg No 167 Exhibited by Geo Hammond, Middlebury, Vt.

REPRESENTATIVE ANIMALS EXHIBITED IN THE
INTERNATIONAL EXHIBITION OF SHEEP, WOOL AND WOOL-PRODUCTS,
PHILADELPHIA, 1880

PLATE IV.

UNIVERSITY OF CALIFORNIA LIBRARY

No. 17. Merino Lamb "Model." Reg No. 145. Exhibited by Geo Hammond, Middlebury, Vt

No. 19. Merino Ram, 2 years old Reg No 2 Exhibited by W L Archer, Burgettstown, Pa

No. 18. Merino Lamb "Daisy." Reg No 169 Exhibited by Geo Hammond, Middlebury, Vt.

No. 20 Merino Ram, 2 years old Reg No 1 Exhibited by W L Archer, Burgettstown, Pa

REPRESENTATIVE ANIMALS EXHIBITED IN THE

INTERNATIONAL EXHIBITION OF SHEEP, WOOL AND WOOL PRODUCTS,

PHILADELPHIA, 1880

A. Hoen & Co. Lith. Baltimore

UNIVERSITY OF CALIFORNIA

No 21 Merino Ewe, 2 years old Reg No 503 Exhibited by W L Archer, Burgettstown, Pa

No 23. Merino Ram, 4 years old Reg No 16. Exhibited by Alex. McCa[illegible]

No 22 Merino Ram, "Ed. Hammond," 3 years old. Exhibited by Campbell & Glass, Cadiz, O.

No. 24. Merino Ram, "Boom," 2 years old. Exhibited by J. M. Miller, Hickory, Pa.

REPRESENTATIVE ANIMALS EXHIBITED IN THE
INTERNATIONAL EXHIBITION OF SHEEP, WOOL AND WOOL PRODUCTS,
PHILADELPHIA, 1880

PLATE VI.

UNIVERSITY OF CALIFORNIA
LIBRARY
BERKELEY

No. 25. Merino Ram "Success," 6 years old. Exhibited by S. C. Work.

No. 27. Merino Ewe, "Town Ewe," 2 years old Reg No 19. Exhibited by Peck & Sons, Geneva, Ills.

No. 26. Merino Ram, "Bush." Reg. No. 207. Exhibited by Peck & Sons, Geneva, Ills.

No. 28. Merino Ram, "Smuggler," 2 years old. Exhibited by F. P. Spivey, W. Va.

REPRESENTATIVE ANIMALS EXHIBITED IN THE
INTERNATIONAL EXHIBITION OF SHEEP, WOOL AND WOOL PRODUCTS,
PHILADELPHIA, 1880

A. Hoen & Co. Lithographers, Baltimore

UNIVERSITY OF CALIFORNIA

CHAPTER III.

EXAMINATION OF THE FIBERS.

MINUTE STRUCTURE AND EXTERNAL FORM.

With the preliminary statements already given we may now proceed to the description of the methods employed in the examination proper, and the consideration of the results that have been obtained. In this connection we have construed the provisions of the law to direct a study of all the important physical characteristics of the staple accepted by breeders and manufacturers to have an influence upon the value of the animal for breeding purposes, or serve as aids in the determination of its value in the factory. This must necessarily embrace consideration of the minute structure of the fiber, its length, fineness, tensile strength, ductility and elasticity, and its evenness as regards any or all of these properties. In some cases it has been necessary to examine them in connection with each other, but in every case we have endeavored to so conduct the tests and arrange the results that the relations between them can be readily made out and their relative importance in the fixing of the value of the material easily determined.

The work of examination proper was begun as soon after the close of the Exhibition as circumstances would allow, but the difficulties which naturally arose, dependent upon the character of the study required, prevented its prosecution in the logical order in which we have endeavored to arrange the results. These difficulties depended upon various causes, among which the more prominent were the lack of precedents in the United States and the consequent lack of reliable instruments and methods with which to carry out the details of the several operations involved. Hence it was necessary to devise new methods of work and new instruments of precision for making the measurements, cause the latter to be constructed, secure and train assistants, and provide for the many apparently unimportant details that could only be cared for as they arose. All these caused serious seeming losses of time, and occasioned great delay in getting the work in that systematic order which can alone furnish satisfactory results. These difficulties will be evident and perhaps partially appreciated upon inspection of the descriptions of the methods and apparatus employed in the several branches of the work.

The study of the minute structure of any material must always be attended with perplexing difficulties, and the examination of fibers in this respect furnishes no exception to the general rule. Not, indeed, because we have no precedents to guide us in such work, for the classic researches of Nathusius and Bohm have furnished many facts of infinite assistance, but because of the properties of the material under consideration. As we shall see further on, wool differs from almost all other kinds of material in several important particulars. To discover special forms of structure the microscope must of course be employed, but the fiber is apparently so uniform throughout, and the lines of structure so weakly defined on account of its transparency, that they may only with considerable difficulty be detected. If, therefore, a specimen of wool be inclosed in any properly refracting and transparent medium, such as water, oil, solution of gum, balsam, or resin, and examined in the microscope with transmitted light, its image presents the appearance of a more or less broad transparent band. With a microscope of high magnifying power and with the light passing through the fiber and the instrument to the eye properly directed, faint lines may be seen crossing the image in a more or less irregular way, while the edges of the image will appear either almost perfectly regular, or it may be slightly serrated, or more properly dentate, the latter quality differing in intensity with the race from which the fiber had been taken. Other than this, and with one further exception, the fiber thus presented appears to be perfectly amorphous and very transparent. This further exception to be noted is found in the pigment that is deposited throughout the center of the fiber of certain breeds of which it appears to be almost characteristic. Forming as it does, an important part of certain classes of wool, it will be described further on, when its peculiarities will be considered in detail.

But if under ordinary conditions the fiber appears to be amorphous in its internal structure, it is quite different when examined after being subjected to the action of re-agents which may impair its transparency or effect its

partial or complete disintegration. Under such circumstances it appears to be cylindrical in shape, covered with irregular scales or epithelia, and consisting of a bundle of elongated fibers, sometimes surrounding a central cellular cavity or canal filled with granules of pigment. These appear to be the three principal parts of the fiber of importance in either a theoretical or practical way, and we shall therefore develop them separately.

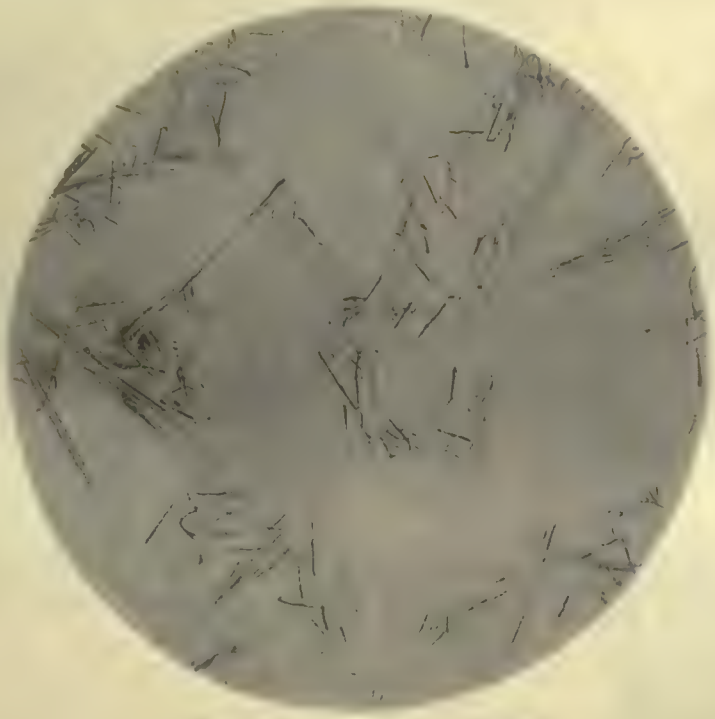
If a bundle of fibers of wool be placed upon a glass slide covered with either sulphuric or acetic acid, or with solutions of the fixed alkalies, they quickly begin to swell, and upon examination with the microscope the transverse markings already mentioned become prominent and the irregularities or serrations at the edges of the image more marked, while longitudinal striations become apparent within the body of the fiber. If to the re-agents thus employed there be added any substance that may of itself or by subsequent change further impair the transparency of the fiber, many of these characteristics become more completely developed and visible, and may be very readily studied. To this extent this preparation of the fiber presents but little difficulty, but to effect the development of the external markings to such a degree that they may be thoroughly studied without causing too great distortion of the parts involves the exercise of greater care. However, for the study of the minute structure without reference to differences depending upon breed or external conditions, the re-agents we have mentioned will fully suffice. Of these we chose for the first gradual disintegration of the fiber that recommended by Nathusius and Bohm, viz, sulphuric acid.

If, as already stated, the fiber be placed upon a glass slide and covered with a glass cover, a small drop of water having been applied to hold the cover in position, one or two drops of very strong sulphuric acid be applied to the slide near to the edge of the cover, it will spread, and upon reaching the latter will be drawn under it by capillary attraction. If then the slide be placed upon the stage of a good microscope of fair magnifying power the changes which the fiber will undergo may readily be observed. The first that may be noticed is a gradual swelling or expansion of the fiber, and almost concomitant with this, the transverse markings, not readily observed without oblique light, make their appearance, and very often, unless very strong acid has been employed, no further action seems to take place. If now the slide be removed from the microscope, gently warmed over a lamp, and quickly returned to the field of observation, the transverse markings become more prominent, the serrations at the edges of the image more distinct, and finally very thin scales or epidermal epithelia, as they may be called, begin to curl at their edges, which cause the transverse markings to ultimately separate from the main body of the fiber and float away through the acting medium. As soon as they separate from the fiber, and even before being completely free, they curl upon themselves, and finally roll into compact coils, so that in their free condition their form cannot be determined with any degree of satisfaction. They are very thin, according to Nathusius, having a thickness of only 0.0014 millimeter, and very transparent.

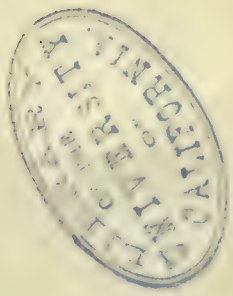
But if when the acid has so far acted upon the fiber that it has become thoroughly softened, and before these epidermal scales begin to curl, they be subjected to strong pressure through the medium of the cover-glass and without any lateral motion to cause abrasion, the fiber may be completely flattened; the epidermal covering seems to split in the direction of the length of the fiber, and spread out, affording an excellent opportunity for the study of the form of these scales or epithelia. Their form naturally varies greatly with the variety of fiber to which they belong, and, in the comparison of the external characteristics of the fibers of different breeds, they form nearly annular layers about the shaft of the Merino fiber, being very narrow in the direction of the axis of the fiber, and comparatively very wide in the direction of the circumference of the fiber in the finer staples and of very irregular forms in the fibers of the coarse-wool breeds. Some of these forms as separated by the acid mediums are illustrated in Plate VIII, A, representing specimens separated from a Cotswold fiber, and as seen floating about in the mounting medium. As they separate they appear to be arranged upon the fiber in somewhat the same manner as the scales on a fish, and they should therefore tend to confer upon the fiber the felting property for which wool is celebrated and upon which the value of the staple for manufacturing purposes so largely depends. But the manner of their attachment must still remain an open question, though the action of these scales in the felting operation need be no matter of doubt. As we see in the sketch they are usually very irregular in form, especially in the coarser wools. In some cases we may detect markings which seem like neuclei, but these are so ill defined, and appear so much like particles of fatty or other extraneous matter, often attached to the fiber in the raw condition, that we can scarcely accept them as neuclei. Many of these scales are entirely free from any such markings, and probably represent the true character with this regard. The forms of the scales when separated as above described are well illustrated in Plate VIII, B, made from a photo-micrograph obtained by solar projection.

After the fiber immersed in the sulphuric acid has been deprived of this outer covering of epidermal epithelia or scales, it suffers still further disintegration. To hasten it, warming as before may be necessary. Longitudinal striations appear and become more marked, the fiber more swollen, and eventually it breaks down to a mass of elongated fibrous cells which overlap each other throughout the length of the shaft. These cells are more or less spindle-shaped, and as they float through the mounting medium, in consequence of currents produced by pressure applied to the cover-glass by means of a mounting-needle or other instrument, they are found to be flattened or oval in their cross-section, nearly of uniform thickness throughout their length in the direction of one axis, but

A. Epithelial scales from Cotswold fibre. Separated by treatment with sulphuric acid. Mounted in water. Drawings traced from polar projection



B. Epithelial scales as separated as above. Photograph x 160.



x about 240.

Cells of Fibro-Cellular Cylinder x 180.
Separated by [illegible] acid and mounted in water. Photograph.

x about 130

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tapering toward each end in the direction of the other. Generally they may be completely severed from each other by gentle abrasion caused by slight pressure and movement of the cover-glass, but very often they separate in bundles or clumps. Here their arrangement as regards each other within the fiber may be more easily observed, and they are found to be arranged in much the same manner as the ligneous fiber cells in vegetable tissue. Indeed, in many particulars they are comparable to the latter, and with this difference, that when thus treated they are much more pliable. Thus the cells are arranged as shown in Plate IX at *a*. If the portion of the fiber thus under examination have suffered rupture at any point, the fibrous cells are partially separated and give the appearance of great laceration at the ends. When motion of the mounting medium—that is, of the sulphuric acid above referred to—is set up by pressure upon the cover-glass, the disconnected ends may be seen to sway backward and forward with it until they are finally detached. This is illustrated in the plate in the cells shown at *b*. These cells sway backward and forward for a time, then loose themselves and float away through the medium. Both before and after detachment, in the different positions in which they may be examined, it seems impossible to detect any signs of nuclei, though they are said by some authorities to exist. There are some markings which seem somewhat like elongated nuclei, but there are many reasons for the belief that these may be due to refractions of light passing through them, and caused by longitudinal striations that may often be distinctly seen, as shown in the plate at *c*. The cells are more or less flattened, and are sometimes more or less twisted upon themselves, so that these light effects may often become exaggerated; and unless nuclei may be better defined than we have been able to see them, their presence must still remain a matter of doubt. But in the study of the cross-section of the fiber, some kind of central marking is very prominent.

Nathusius says with reference to these cells: "It is difficult to state what may be their size, for they often vary in the same specimen when differently treated. It is probable that they are separated by the solvent action of sulphuric acid upon the true cell membrane, and the horny kernel alone is apparent, so that we may only guess at the true dimensions. This fibrous tissue is swollen by water, and sulphuric acid must swell it even more."

The tissue consisting of these elongated cells therefore constitutes the principal body of the fiber. In some of the coarser fibers there may be found within this portion a central canal of cellular cavities filled with a characteristic granular pigment. The ultimate forms of the parts of this canal cannot, however, be studied in this treatment with sulphuric acid, and we shall therefore describe the method of separating it and the form of its parts further on.

When stronger acid is employed, stronger heat applied, or the action more prolonged, the cells become finally dissolved and disappear.

We have also studied the minute structure of the fiber through the medium of its cross-section, and this method of study is of interest from many points of view, one of the most important of which is the method of obtaining and supporting good sections for examination. All who have had occasion to study fibers have had this serious difficulty to contend with.

The matter of securing sections of any kind of material for microscopic examination is always attended with peculiar difficulties, depending in each case upon the nature of the material to be operated upon. But in most cases the material may be made self-supporting if this be not its natural condition, and if it be sufficiently firm to resist the action of the cutting instrument in the operation of making the section. On the other hand, the thin section obtained usually presents sufficient surface to enable it to be readily mounted and supported for examination and study. But with detached fibers this is scarcely possible. Even with the most perfect instruments it is difficult to make sections of thickness less than one or two thousandths of an inch, and this is often greater than the diameter of the fiber to be examined. Occasionally by rare good fortune thinner sections may be secured, but the thicker ones are the general rule. When, therefore, they come to be mounted upon the slide they fall upon the side, and observations upon the end section become impossible. Then, too, the flexible character of the fiber prevents the possibility of making transverse sections of it, unless it be suitably supported. To this end Rohde has recommended drawing the fiber through a good solid elastic cork and making thin sections of the latter. His mode of operation consisted in threading a needle with silk thread, attaching one end of the fiber under examination to the end of the thread, and thus passing it through the cork. After the thread and fiber are drawn through the opening made by the needle the elasticity of the cork causes it to close over the fiber and hold it firmly in position. When several fibers have thus been put in position the cork is placed in the section cutter and thin sections made. But Rohde found it very difficult to mount upon the slides for examination the sections of the fibers thus made.

Nathusius recommends supporting a bundle of fibers in gutta-percha. He softens the gutta-percha by warming, inserts the fibers while it is warm, and when it is again hardened by cooling mounts in the section cutter and makes sections in the usual way.

Voigtlander uses glue for support in cutting. He makes a thick solution of glue, immerses the fibers in it while warm, and when it becomes sufficiently hardened by cooling makes the sections in the usual way. The glue is then dissolved from the sections by means of water and the sections of fiber mounted.

All of these methods are attended with various serious difficulties. The fibers may readily be put in position in the cork after Rohde's plan, but it is difficult in the first place to secure corks free from hard woody knots which are sure to injure the edge of the cutting instrument, and in the second place it is equally difficult to remove the

wool sections from the cork and mount them upon the slide for examination. The gutta-percha support of Nathusius is apparently more desirable, but Bohm objects that the heat necessary to soften it may affect the fiber, while the material itself is difficult to cut. The glue of Voigtlander is still more undesirable, both because when it may be cut it is scarcely sufficiently firm and because of the objections urged by Bohm that the water it contains, and that employed in separating the sections of fiber from it preparatory to mounting, has a tendency to distort the fiber and make it unfit for proper examination.

In our own investigations all of these materials and many others have been made the subject of careful experiment. In the first place we adopted the method of Rohde of supporting the fiber for cutting in selected cork, but this was soon rejected because of the objections already stated. It was difficult to find and mount the sections after they were made. The edge of the cutting instrument was ruined by the action of the little hard knots occurring in the cork, and the thickness of the sections of the fiber was greater than their diameter, so that it was impossible to maintain them in proper position on the slide for examination. This was followed by placing a bundle of fibers in an upright position in a thick solution of gum contained in the cavity of a section instrument provided with a freezing attachment. The gum was frozen and thin sections made. The section of gum quickly melted and the sections of fibers were liberated; the latter were then collected and mounted for examination. But here, as before, it was found impossible to keep the sections in a proper position on the slide, and this plan too was rejected.

These experiments proved the necessity of selecting for a support in the section instrument some material, sections of which, containing the sections of the fibers, could be mounted upon the slide and the latter examined *in situ* in the supporting medium. To this end the fibers were immersed in various preparations of gelatine. In the first place strong solutions of gelatine in water were made, and the bundles of fiber immersed therein while it was warm and therefore fluid, and held upright by various devices until the glue cooled and became solid. It was then allowed to dry until it became sufficiently hard to cut, when it was placed in the section instrument and sections made. But it was found that the water of the glue had a tendency to contort the fibers on one hand, while the great contraction of the glue by drying made it very undesirable. To avoid this latter difficulty, however, solutions of glue were prepared with glycerine, but it was found that the glue when sufficiently soft to be cut nicely was too elastic, and it was impossible to get good sections, even with the sharpest knife. Finally, all preparations of gelatine were abandoned and various preparations of wax experimented with, but they were found unsatisfactory, principally because they were so deficient in transparency, and hence they too were rejected. After our experiments with all the substances above described, paraffine was presented to our attention and has really proved the most desirable of all. For though many objections may be urged against it, its brittle character, its crystalline structure when cold, its tendency to curl in making sections, yet these difficulties are more than counterbalanced by its easy fusibility, its transparency, and its indifference to the reagents employed in treatment of the fiber. We have, therefore, employed it in all our work in making cross-sections of the fiber, and it has served a most useful purpose. Whenever this may be desirable, the brittleness of the section and its crystalline character may be destroyed by mixing with it varying proportions of cocoa butter. But in our work this did not seem to be desirable or necessary.

In preparing the sample of fiber for making the cross-section the following details were carried out in our experiments. In the first place, the cavity of the section instrument is filled with melted paraffine. The sample to be operated upon is then dipped in the paraffine and left immersed in it until it is thoroughly impregnated and nearly free from air. It is then grasped at each end and firmly stretched to straighten the fibers without deforming them. But before the paraffine has had an opportunity to become perfectly cooled and set, the sample is drawn between the thumb and forefinger to compress it and crowd the fiber into the smallest possible space. It is now again immersed in the melted paraffine, stretched and compressed as before, and allowed to cool. Thus prepared it is cut into two parts. By the aid of a heated rod of iron or steel a small hole is melted in the paraffine, filling the cavity of the section instrument, and one-half of the prepared bundle of fibers introduced vertically to the melted paraffine. It must be kept in an upright position until the latter becomes cool and perfectly hard and firm. Sometimes it is found advantageous to again melt the paraffine about the sample mounted in this way, in order to insure the more perfect amalgamation of the paraffine of the section instrument with that surrounding the fibers. The other half of the specimen is introduced in a similar manner, and, if desirable, others prepared and fixed in the same way. All are then cut off at the surface of the paraffine, and sections through the latter made in the usual way. In this operation a very sharp knife which is not too much hardened must be employed. Treated as just described, the fiber appears to become very hard and has a tendency to injure the edge of the knife, turning or notching it, either of which seriously interfere with success in securing good sections.

It is above all desirable that the sections be made as thin as possible. When too thick they interrupt the transmission of light through the instrument and the proper examination of the fibers. On account of the brittle and crystalline character of the paraffine the sections always separate in close rolls. The latter are broken up, and those parts containing the sections are separated and mounted on the slide for examination and treatment. If it be desirable to color the sections they are simply mounted in solutions of aniline, from which the wool quickly absorbs the dye. But if disintegration is the end in view, they are mounted in strong sulphuric acid or solutions

Fig. 1.

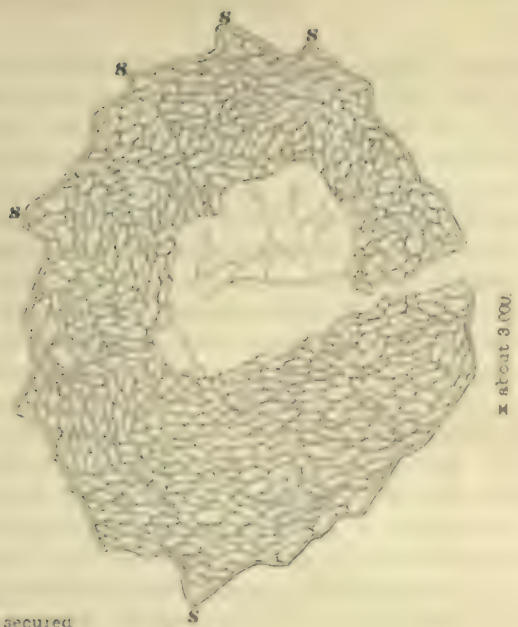
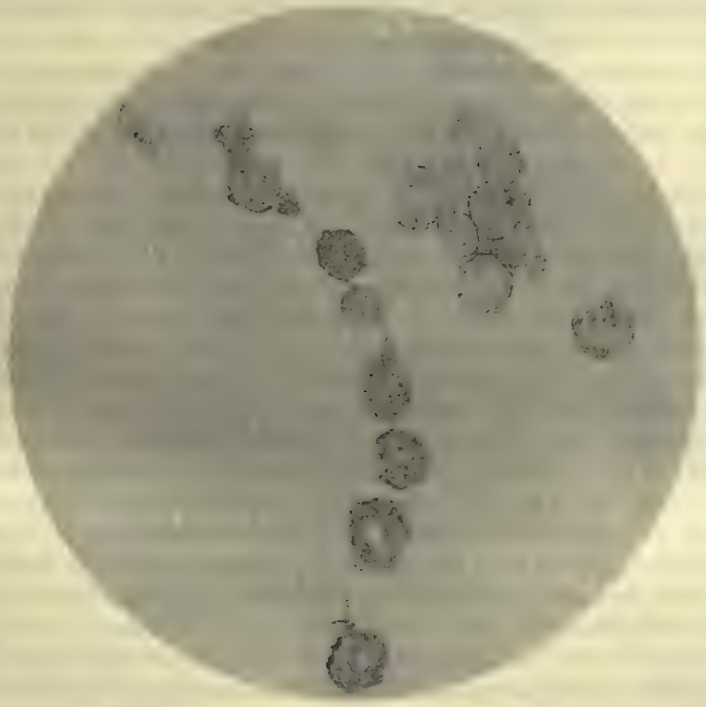


Fig. 2.

Diagrammatic sections of Cotswold fibre secured by solar projection and tracing.



Photograph of Cross Section of Cotswold fibre x 310
Section made by supporting in paraffine, and prepared for examination by treatment with sulphuric acid and mounting in cotton-seed oil.

of potash or soda. By either of the latter means the development of the internal structure may readily be effected. The disintegrating agent acts only upon the wool, without affecting the paraffine. Almost immediately upon mounting the specimen in either of these agents the fibers begin to swell. The outer layer of flat cells or epithelial scales and the inner elongated cells slowly become apparent, and the fiber ultimately presents the structure shown in detail in the figure representing cross-sections of Cotswold fibers. The outlines of the form are secured by projecting the image upon a screen and tracing the image. Here the cylinder of elongated fibrous cells is plainly manifest. The elliptical form of the cells, with the central marking already mentioned, are fully shown. In this figure we have also given somewhat of prominence to the outer layer of flat or epithelial scales, for though they are so thin as to be almost invisible in cross-section with the powers that must be employed in this study, yet under the action of the disintegrating agent employed they soon begin to separate and cause the protuberances shown at S S S. These are also seen to correspond with the division lines of the scales wherever the side of the fiber is visible, as in Plate X.

In this enlargement, also, the central canal, usually filled with pigment, becomes very marked, and the general structure of the fiber is thus fully illustrated. First, we have the outer epithelial covering, then the inner cylinder of fibro-cellular tissue, and finally the inner cylinder or core of pigment, and this will apply in general to fibers of all breeds, though in some of them, as we shall see later, the pigment may be entirely wanting. As we have already stated, if we make a microscopic examination of a bunch of wool fibers mounted in gum, Canada balsam, oil, glycerine, or other highly refractive medium, and with transmitted light as a means of illumination, we find it to give an image almost homogeneous throughout, sometimes having the appearance of a transparent band, in some cases with slightly serrated (Merino), in others with almost uniform or even edges (Lincoln). Sometimes, upon very close examination, the transverse markings already mentioned may be faintly seen, but they are never prominent. Sometimes we find extending through the center of the image a band apparently more dense, dark by transmitted light and brilliantly white in reflected light. It is at once recognized as the pigment canal already mentioned. Occasionally the pigment is dissolved from the canal at the end of the fiber by means of the mounting medium, and the structure of the canal may be observed. This peculiarity, together with the form and arrangement of the external epithelial scales and the forms of the individual fiber, constitute the subject of this branch of our investigation. In the outset it was hoped that the results to be obtained here might serve as a basis upon which to found a system for the determination of purity of blood in different breeds, but how far anything of practical value may be developed from them will appear further on. To make these characteristic markings more prominent, so that they may be readily studied, the fiber under examination must be treated to reduce its transparency and slightly spread the scales upon which the markings depend. To this end the fiber must first be cleansed and freed from the natural grease with which it is covered. This operation also effects the desired slight displacement of the scales. The fiber thus cleansed is then colored to destroy to some extent the transparency. Very extensive experiments were made with vegetable colors, aniline dyes, and other staining materials ordinarily employed, to determine which of them could find useful application here.

But all these failed to give any satisfactory result. We then tried a solution of silver-nitrate in the strongest water of ammonia. The fiber without any previous treatment could be immersed in this solution directly, and after sufficiently long digestion it is removed, dried, and either exposed to sunlight or heated on the drying-plate. This whole treatment causes the fiber to swell somewhat, but the distortion occurring is more than counterbalanced by the results obtained. All the transverse markings showing the form and arrangement of the scales may be easily seen. So also the fiber may be washed with an alkaline solution or soap, dyed with aniline, and finally treated with sulphuric acid. But the treatment with ammoniacal solution of silver-nitrate has proved by all means the most satisfactory in all the drawings we have made and have now to present.* But before proceeding to their discussion it will be of interest to describe the method we have used to enable us to secure accurate and faithful drawings of their external characteristics. In the first place, the fiber is treated with the silver solution just mentioned. Then after drying it is mounted in Canada balsam, or other suitable mounting medium, and the slide holding it placed on the stage of the microscope. The latter is then inclined so that the tubes occupy a horizontal position, and an image of the fiber be projected on a screen by means of a ray of sunlight.

Let me describe the arrangement of the instrument in somewhat more of detail: In the first place, the ray of sunlight is caught upon the mirror of a Keith's heliostat, and reflected through two condensing lenses to the Webster condenser of the microscope; the latter condenses the light to a single focus at or near the center of the field of observation. Usually the one-fourth or one-eighth inch objective is employed, though a Spencer one-half inch, with 100° angular aperture, was sometimes employed. The image formed by the eye-piece is projected to the screen, or, by means of a small reflecting camera to be attached to the eyepiece, it is projected upon the table; when the focus is properly adjusted, the details of the image are traced with either pencil or pen, or they may be secured by photograph. The figures given in Plates XI to XXXVI were secured by tracings of projections thrown upon the

*Later work proved that strongly condensed solar light and oblique rays will develop very clearly the details, so that they may readily be traced from projection. The mounting medium, however, is important, and a mixture of equal parts of glycerine and alcohol will give by far the most satisfactory result.

table. In most cases higher powers were employed to bring out the details, for in this connection the one-fourth Crouch and the one-eighth Spencer were found to serve a better purpose. In the examination of these figures it must be borne in mind that the fibers when employed for making the drawings were somewhat distorted by the preliminary treatment of staining they had received, but as a fact the deformity from this cause was very slight. When examined in the natural condition the projections at the edges of the images are very slight, and in the cases of the Cotswold, Lincoln, and Leicester fibers, scarcely perceptible. This is true to a large extent even when the fibers have been treated, so that, as might be expected, some little exaggeration has been necessary in the drawings to give prominence to those peculiarities that could only be brought out in the microscope by varying the focus or the direction of the incident light. Here we have an appearance of overlapping in the arrangement of the scales, but it is difficult to determine with certainty that this occurs, though from the form there is every probability that it does to a greater or less extent, and that the scales occupy much the same relative position toward the fiber that the pavement epithelia do to the mucus surfaces. On this subject Bohm makes the following remarks:

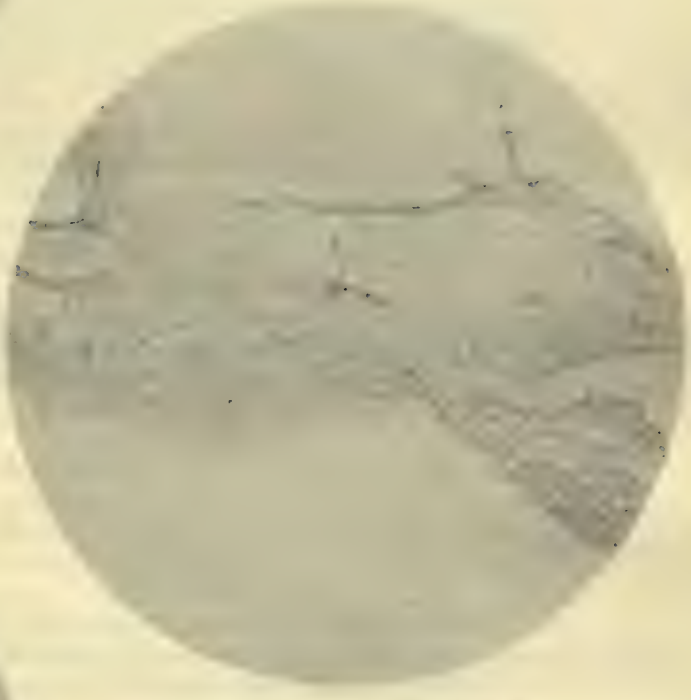
> The epidermis (*cuticula pili*), or outer covering, completely surrounds the fibro-cellular portion of the fiber, and consists of extremely thin, flat epithelial scales lying across the spindle-shaped cells within. These scales are either joined at their edges, or they overlap like shingles, the latter giving to the image of the fiber the dentate appearance characteristic of certain breeds. They are differently arranged in the fibers of different races of animals, and even in different breeds of sheep. In some we find the scales alternately arranged without overlapping at the edges, so that they appear like shingles, while in others, such as in the pure-bred Merino, they seem to form annular layers around the whole fiber, and appear like cones inserted within each other. It is this overlapping, when visible, that gives a dentate appearance. Thus far no nuclei have been detected in these epithelial scales.

As to the latter point, our own investigations have confirmed the conclusions of Bohm. Even with the most varied treatment we have been unable to develop any traces of nuclei. Nor have we been able to determine the manner in which the scales are joined to each other. There are many reasons to support the conclusion that they are attached to a special membrane surrounding the fibro-cellular cylinder, a membrane exceedingly thin and transparent, and difficult to detect even under the most favored condition. This layer or membrane with its scales, like the contents of the pigment canal, seems much less soluble in strong alkaline solutions than the fibro-cellular mass, and while the latter is rather quickly broken down and dissolved by the re-agent mentioned, this with its scales remains intact for a long time under the same treatment. This becomes apparent if a fiber of the coarser wools be placed upon a glass slide and covered with a small quantity of a strong solution of potassium hydroxide (caustic potash) and left for some time to digest. The same effects may be obtained more readily by careful heating.

By observing the fiber, from time to time, and gently crushing it by pressure upon the cover glass, the fiber will be seen first to swell and show the characteristic markings due to the scales, then to exhibit the outlines of the elongated cells of the inner cylinder, and very soon the latter disappear completely by solution, leaving the membrane in question in patches over the plate. We have succeeded admirably in separating the scales by this method, as may be seen from the reproduction of the photograph we have to present herewith, Plate XI, showing that in the case of Cotswold wool, either the scales are attached to an exceedingly thin membrane or they are joined to each other by their edges. At any rate there are here no evidences of the overlapping mentioned by Bohm. Yet, when we carefully examine the edges of the image in the microscope before the disintegration takes place, we note a dentate appearance that can scarcely be ascribed to any other cause. But even the popular knowledge concerning the long wools would lead us to expect this to be less prominent in the long coarse wools than in the shorter finer ones. But as concerns the scales, what we have most seriously to consider here, with a possible practical end in view, is the character of the workings in the image of the fiber developed by this form and general arrangement, for it has been suggested, and the results of our investigations have tended to confirm it, that these markings, together with others, might be employed by breeders for the determination of the purity of the blood of any breed operated upon, and especially those having fine wools in which contamination with coarser-wooled blood may have occurred.

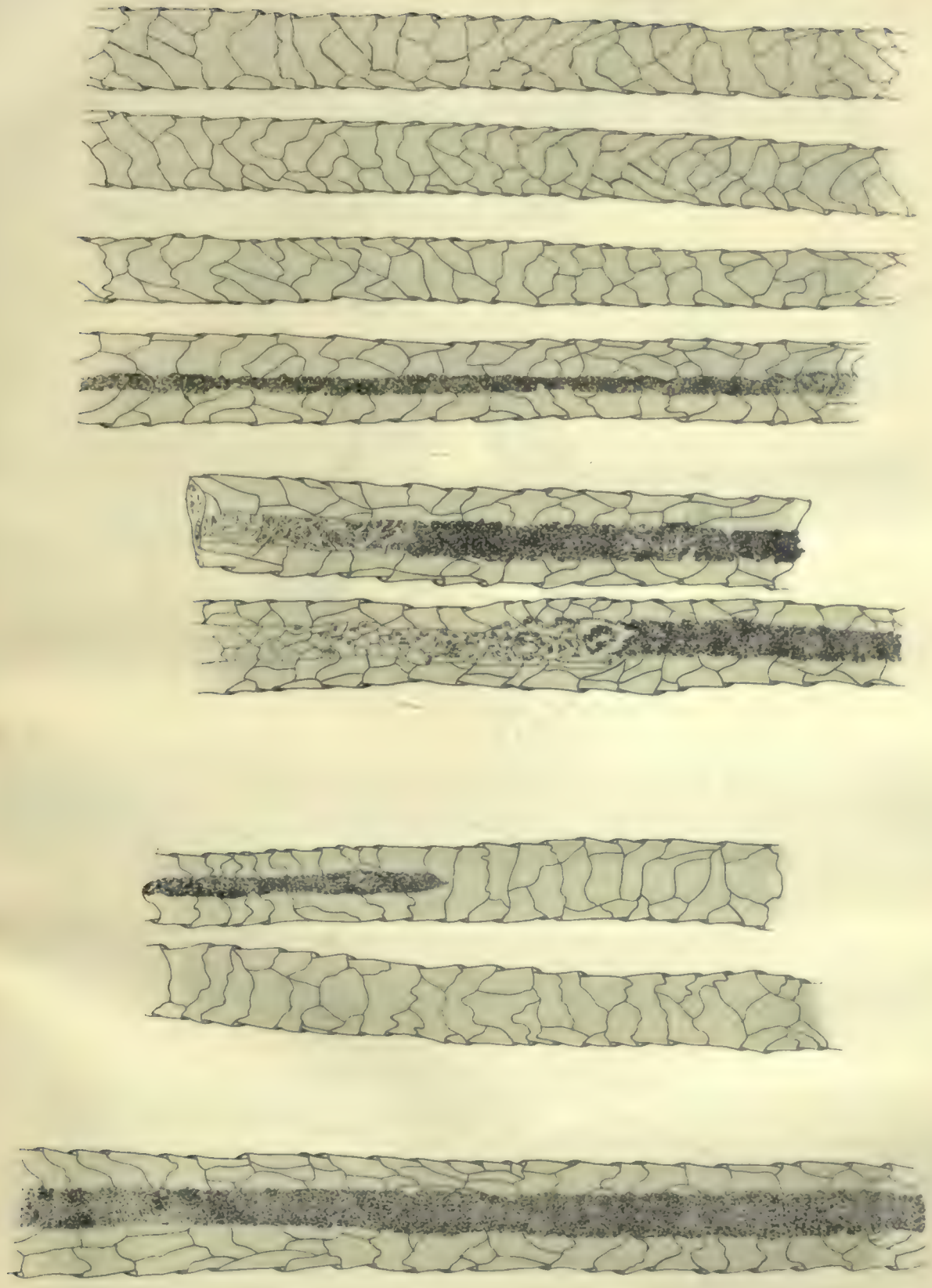
Referring to our plates, which it is to be regretted had to be curtailed both because of the space they naturally require and the time involved in their preparation, we find upon general examination that while the differences between the fibers of several breeds here represented are to some extent indefinite, they are sufficiently decided to distinguish between the two great classes into which wools are naturally divided; that is to say, between the long wools and short wools; the Cotswolds and Lincolns on the one hand, and the Merinos and Downs on the other. In the coarser and longer wools we find a greater tendency to angular forms, less difference in the width of the fibers in different directions, greater approach to the rhombic forms as suggested by Bohm. The outlines of the scales are much more broken, and the edges have a tendency to form an angle with the longitudinal axis of the fibers instead of being nearly perpendicular to it. There is little or no parellelism in the lines made by the edges of the scales. These characteristics are especially marked in the various plates, XII to XX, showing the forms of typical fibers of the Cotswold, Leicester, and Lincoln races, and they appear more decided when the images are developed with the higher powers. Here, too, we may see some distinctions between the

Epithelial Cuticle? x 180. Prepared for Photograph by treatment with potash, mounting in water. The detached cuticle is seen at A, the body of the fibre at B.

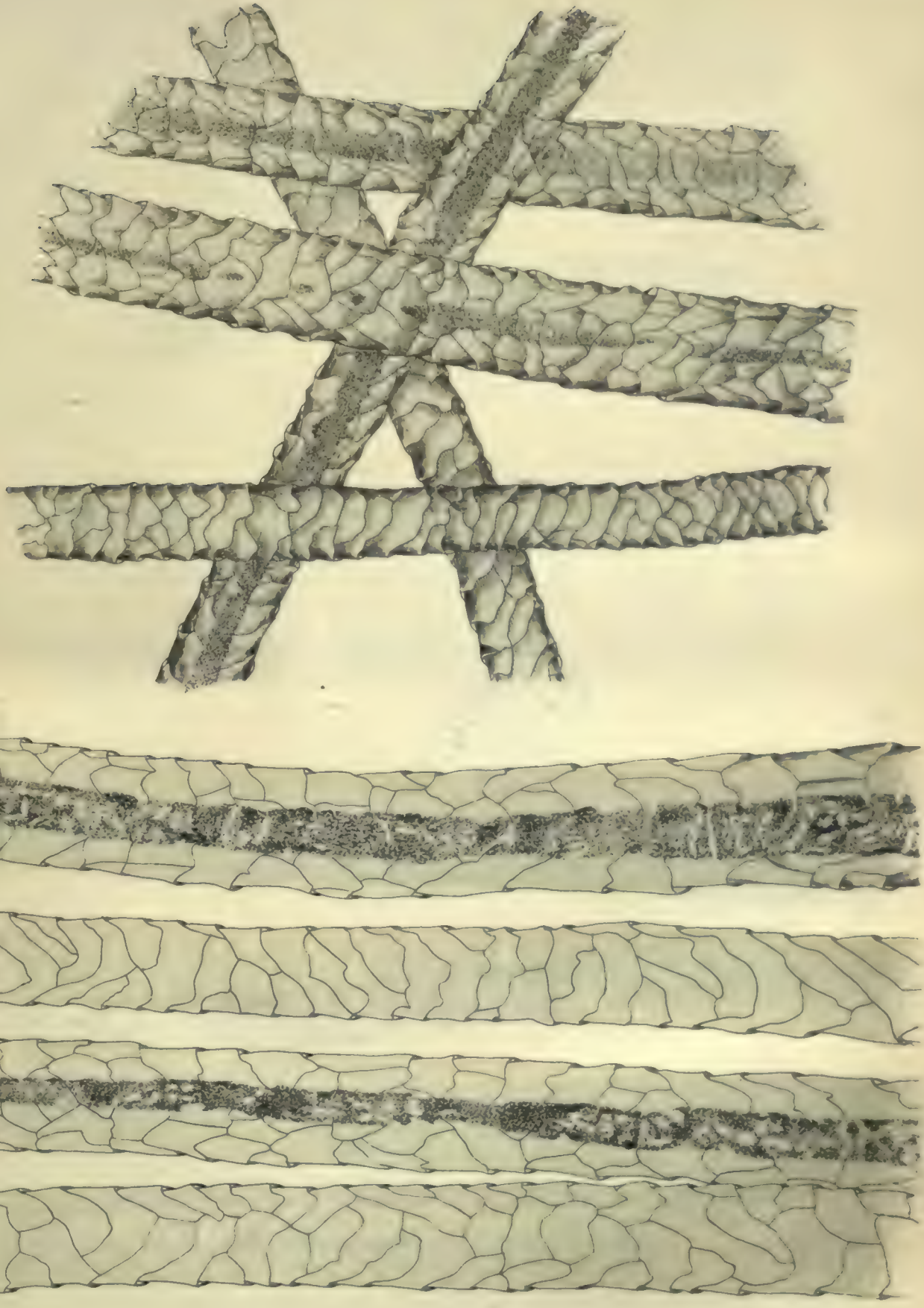


Epithelial Cuticle? of Cotswold fibre x 180. Prepared for examination by treatment with potash and mounting in water. Photograph taken after drying.

Epithelial Cuticle? (x 180.) detatched.



REPRESENTATIVE FIBRES FROM COTSWOLD.
DRAWN FROM SOLAR PROJECTIONS. × 330.



REPRESENTATIVE FIBRES FROM COTSWOLD.

DRAWN FROM SOLAR PROJECTIONS, X 450.

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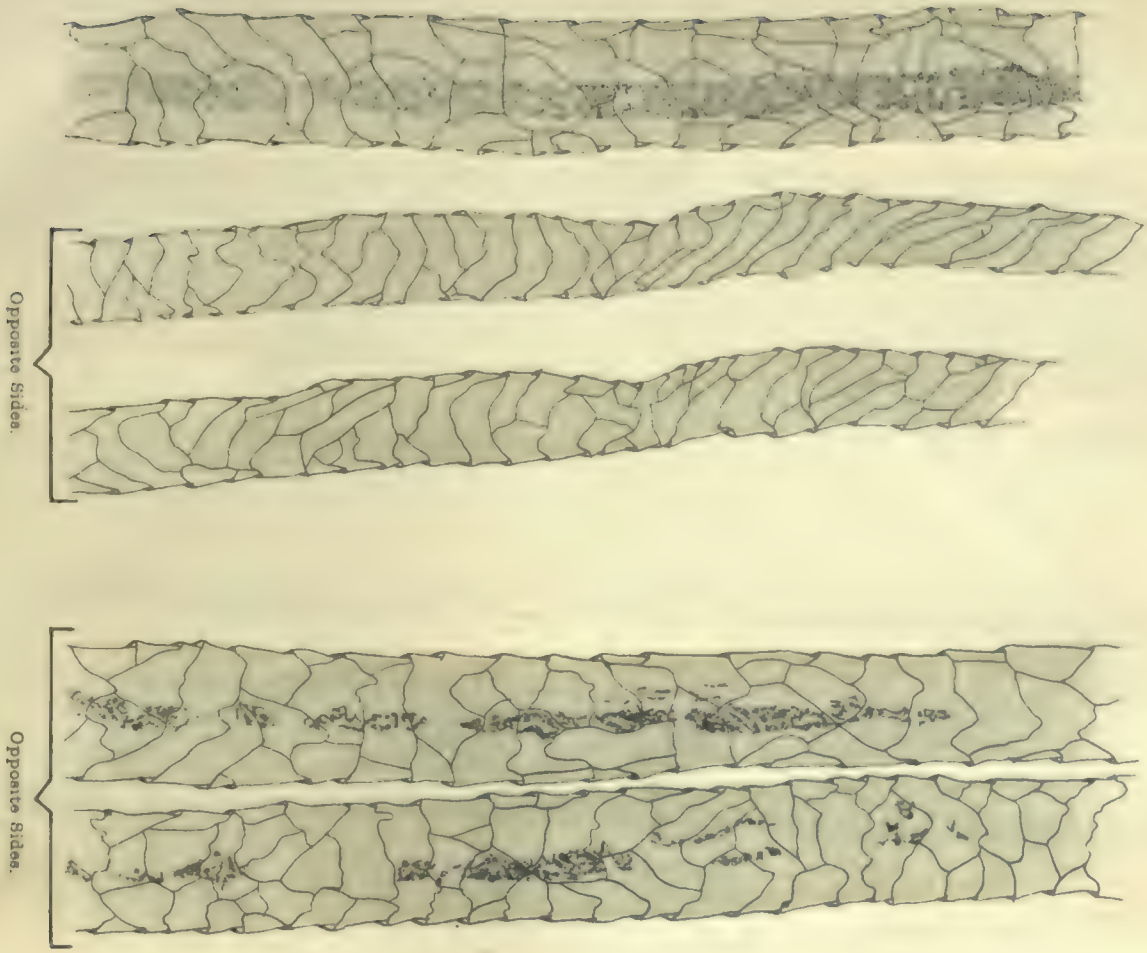

REPRESENTATIVE FIBRES FROM COTSWOLD.
DRAWN FROM SOLAR PROJECTIONS, X 310.

REPRESENTATIVE FIBRES FROM LEICESTER.
DRAWN FROM SOLAR PROJECTIONS, X 575.

PLATE XV.

X 575.

X 310.

REPRESENTATIVE FIBRES FROM
LINCOLN.
DRAWN FROM SOLAR PROJECTIONS, ENLARGED AS INDICATED.

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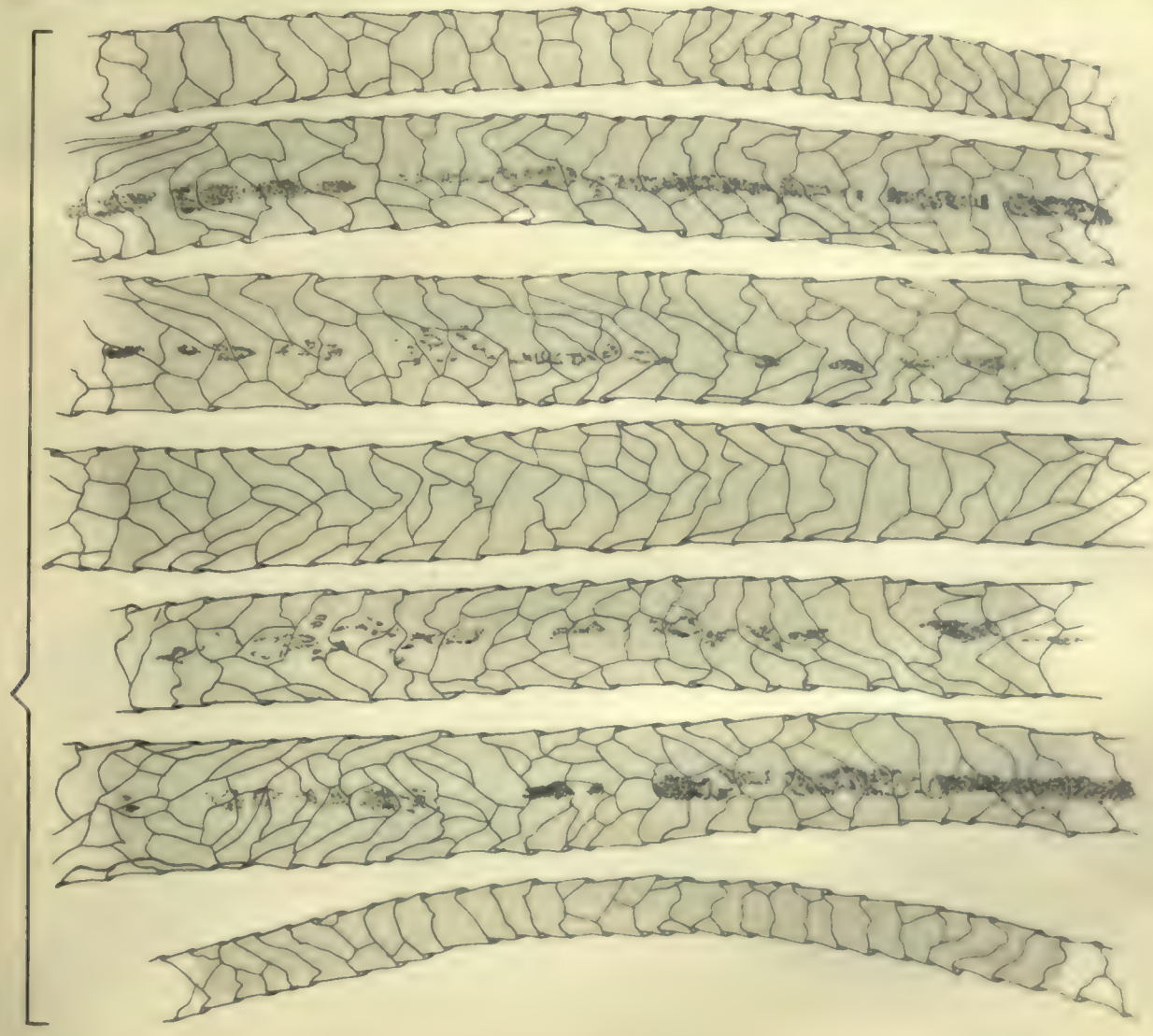
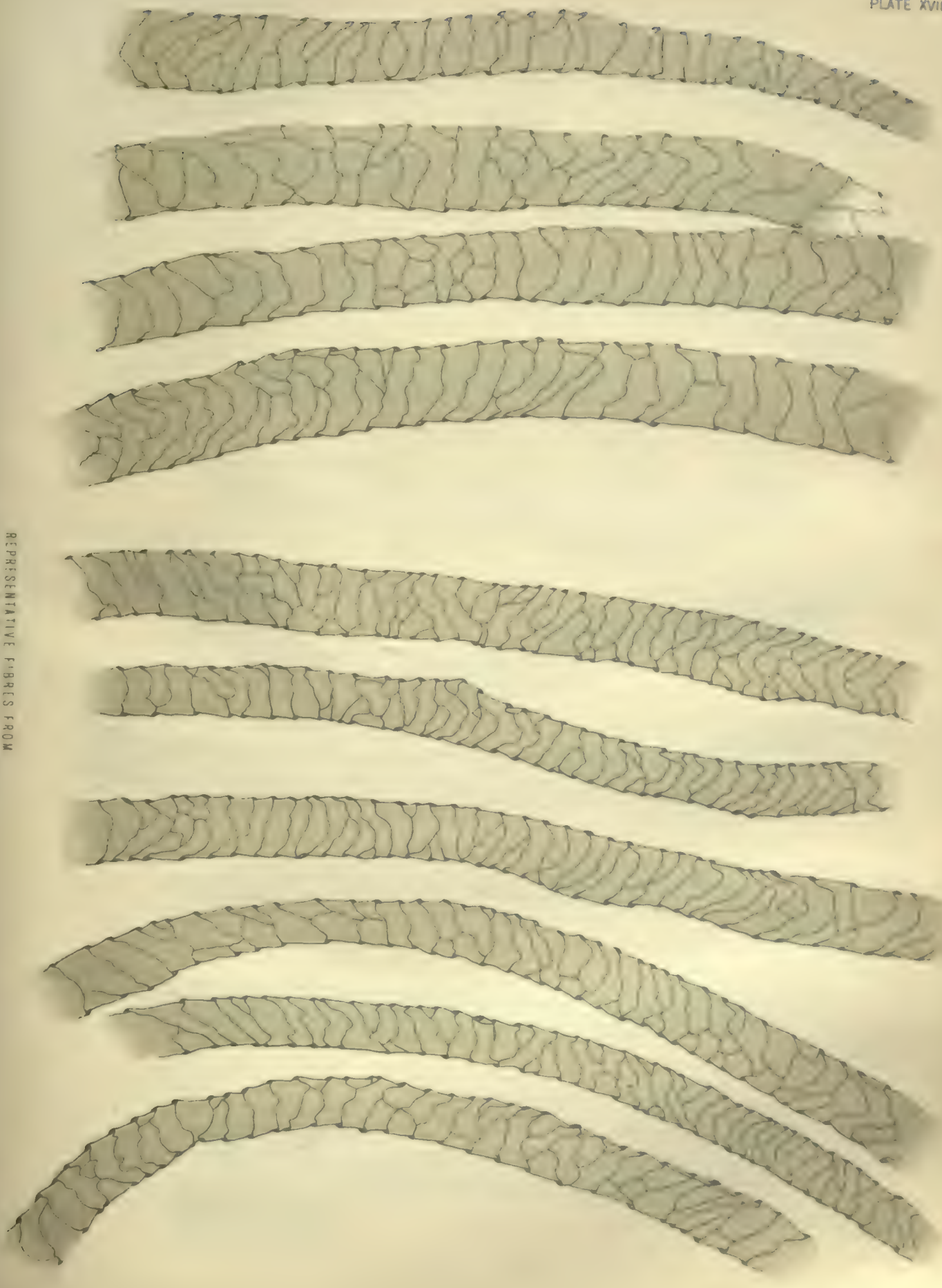
X 575.



X 310.

REPRESENTATIVE FIBRES FROM OXFORDDOWN.

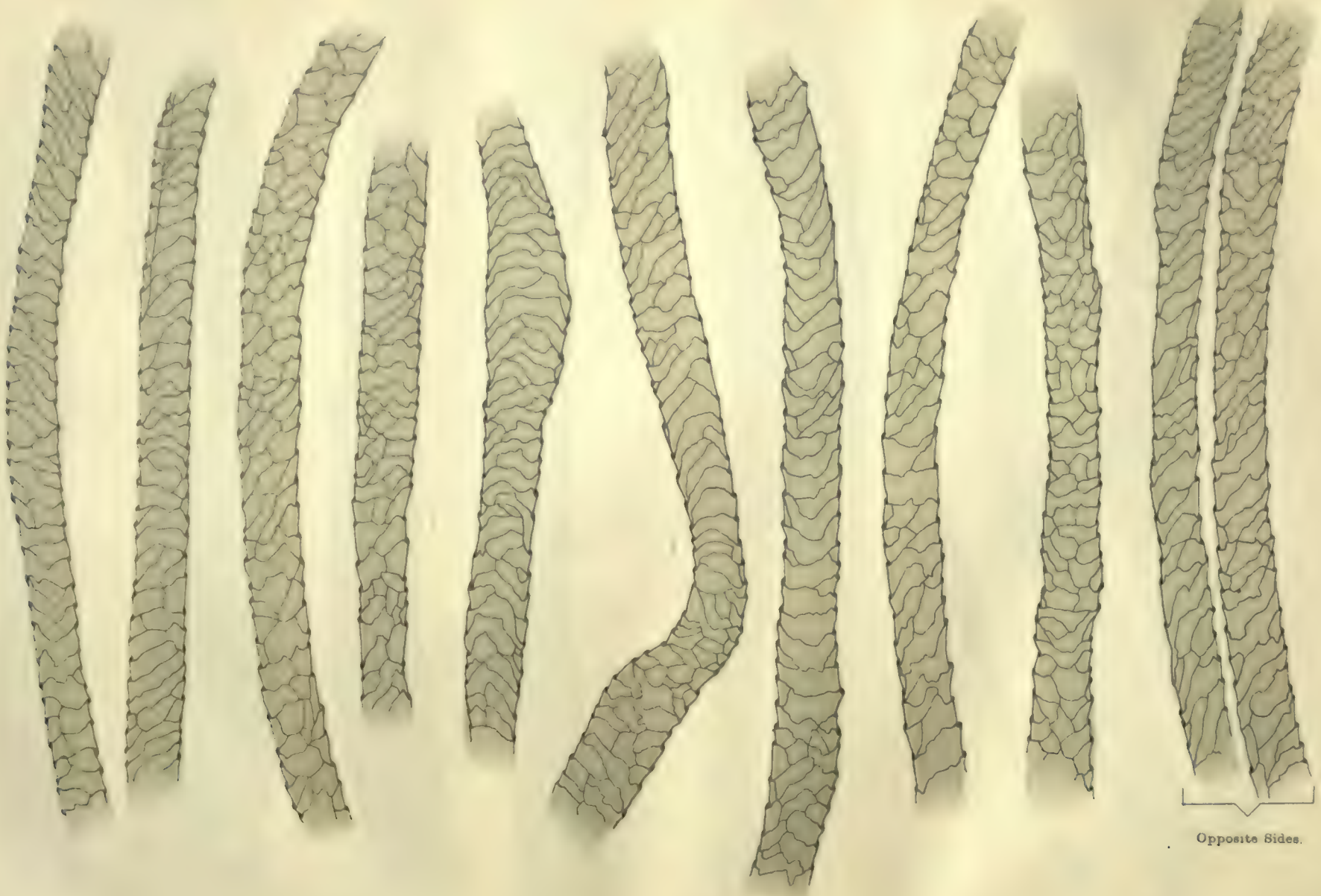
DRAWN FROM SOLAR PROJECTIONS, ENLARGED AS INDICATED.



REPRESENTATIVE FIBRES FROM SOUTHPORT.

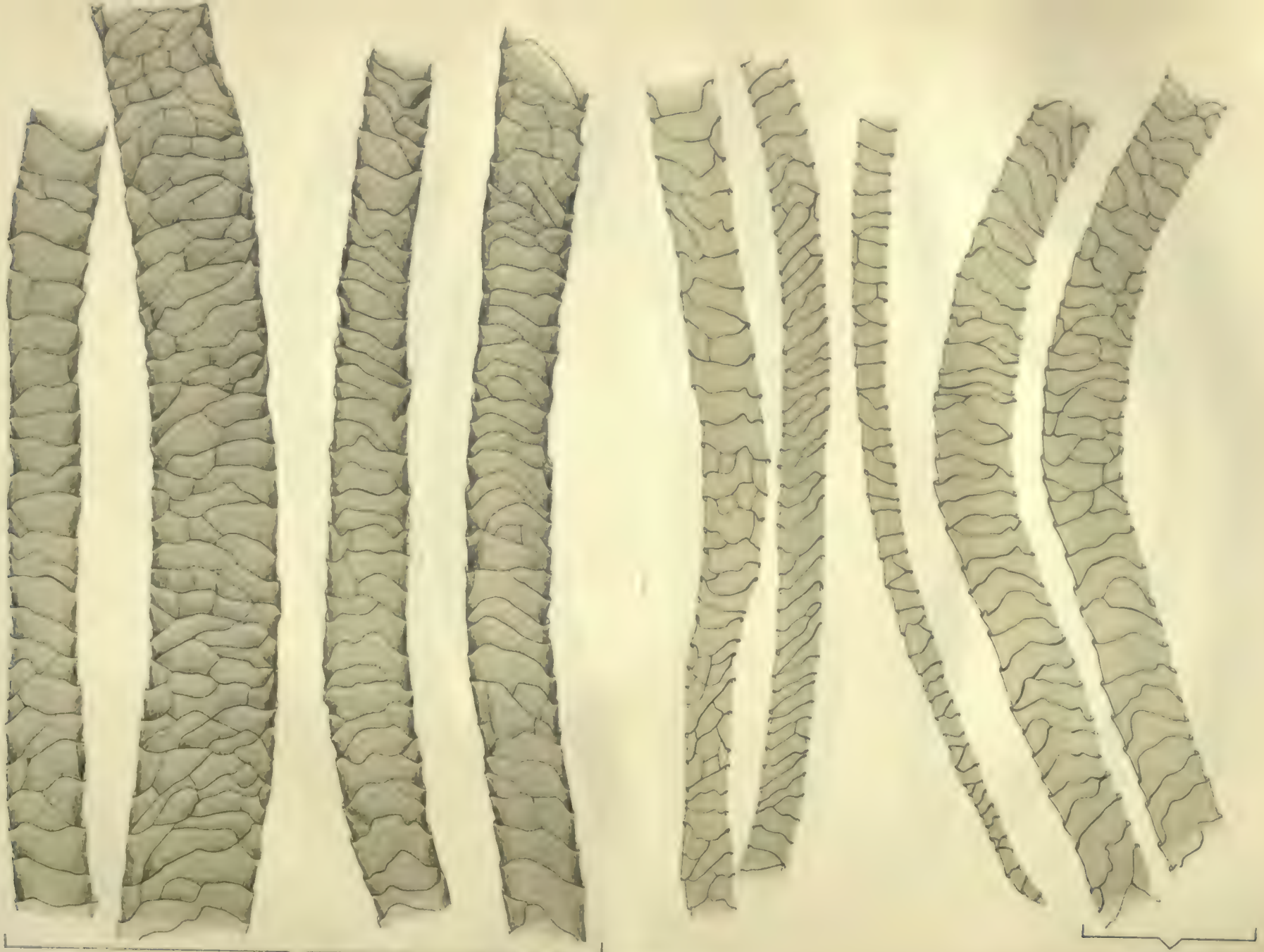
DRAWN FROM SQUARE PREPARATIONS. × 45.

PLATE XVIII.



Opposite Sides.

REPRESENTATIVE FIBRES FROM
HAMPSHIREDOWN.
DRAWN FROM SOLAR PROJECTIONS, X 310.



X 575.

REPRESENTATIVE FIBRES FROM
AMERICAN MERINO
DRAWN FROM SOLAR PROJECTIONS, ENLARGED AS INDICATED

Opposite Sides

× 310.

REPRESENTATIVE FIBRES FROM AMERICAN MERINO.

DRAWN FROM SOLAR PROJECTIONS, ENLARGED AS INDICATED.

× 140.

PLATE XXI.

Sample 277 A

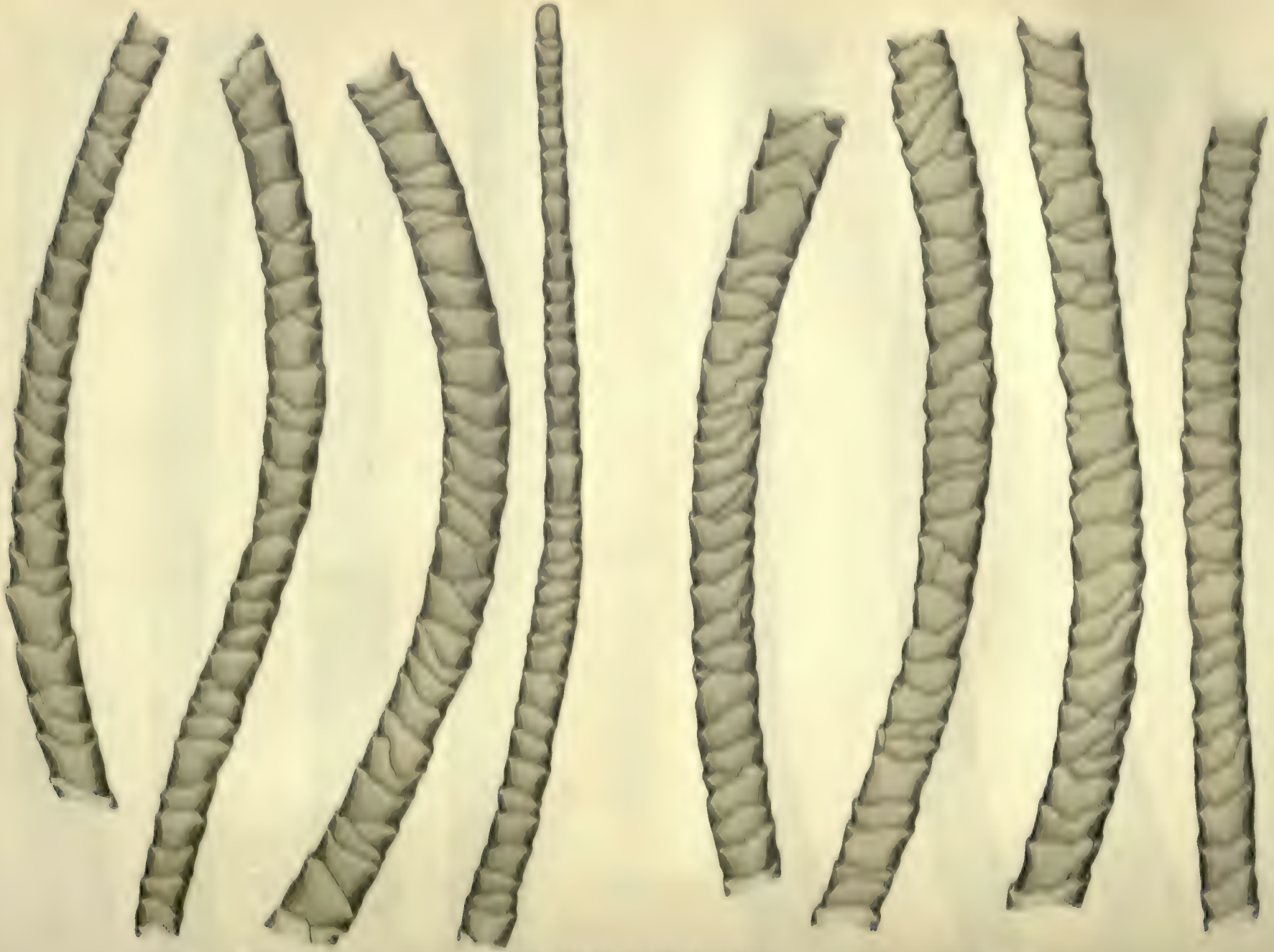
Sample 277 B.

Sample 277 C

COMMERCIAL GRADES OF BOSTON MARKETS.

PICKLOCK.

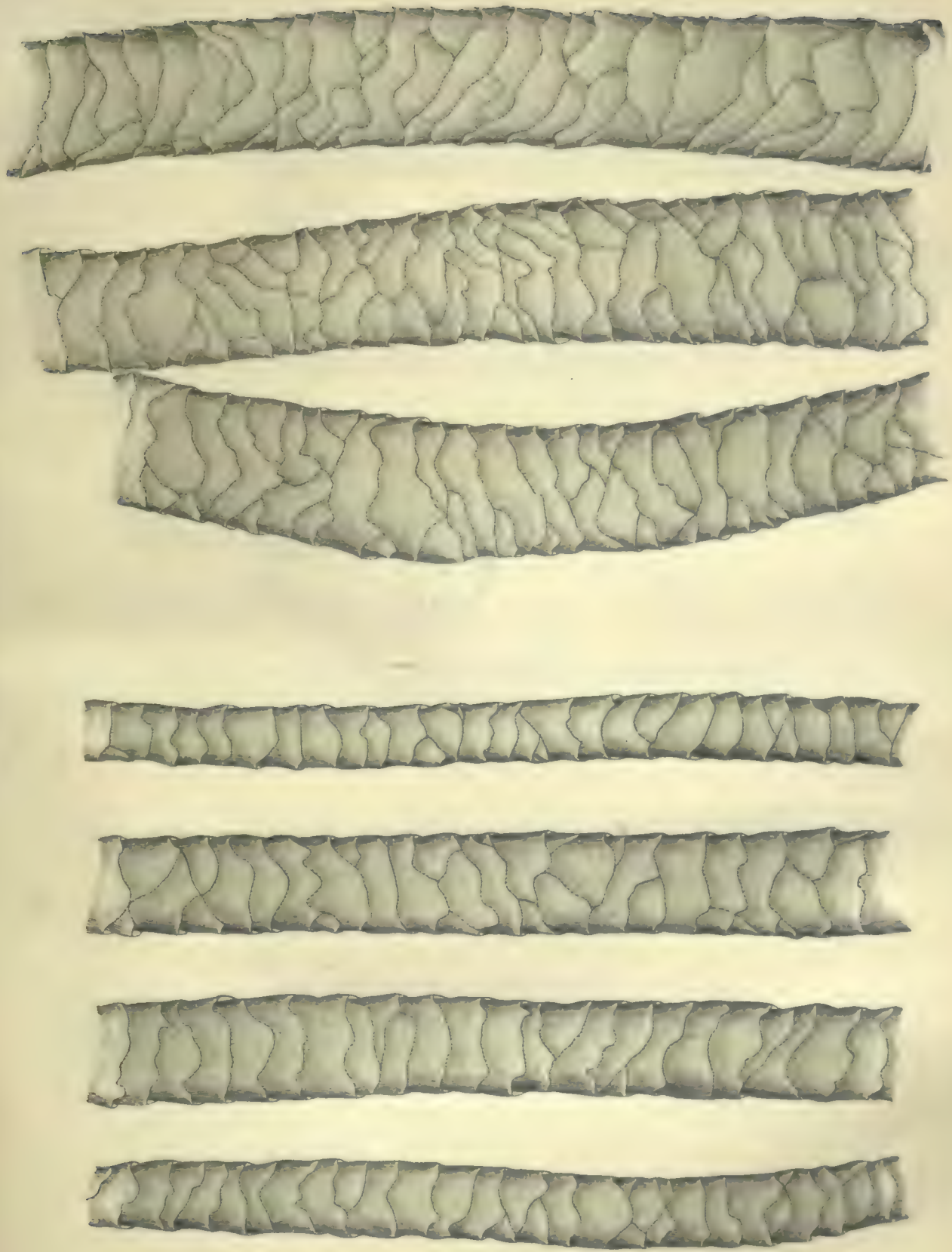
DRAWN FROM PROJECTIONS X 5.75



COMMERCIAL GRADES OF BOSTON MARKETS

COMMERCIAL GRADES OF BOSTON MARKETS.
FINE UNWASHED.
DRAWN FROM PROJECTIONS. X 5.75.

COMMERCIAL GRADES OF BOSTON MARKETS.
FINE UNWASHED.
DRAWN FROM PROJECTIONS. X 575.



COMMERCIAL GRADES OF BOSTON MARKETS.
BETWEEN X AND NO. 1.
DRAWN FROM PROJECTIONS. X 575.

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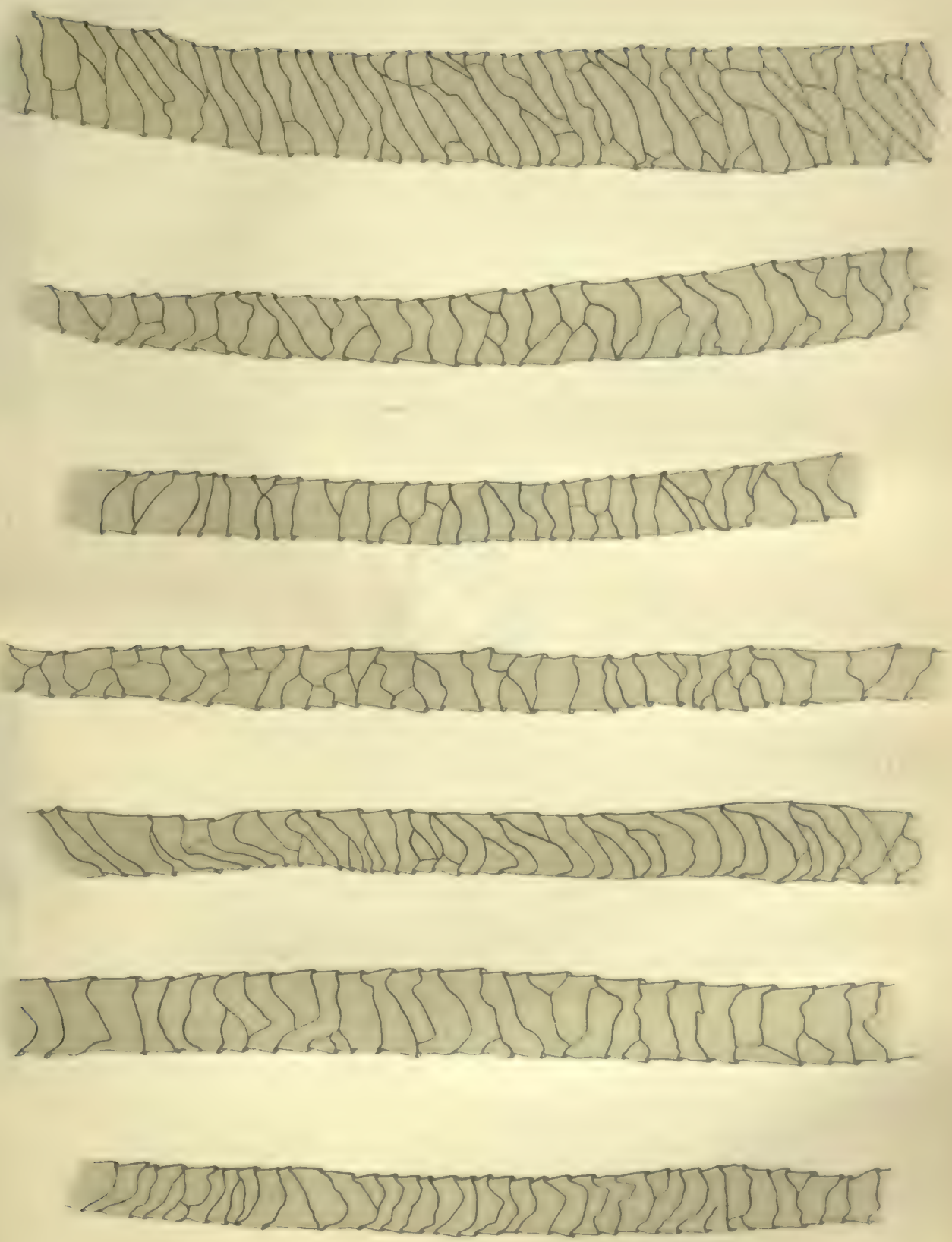

COMMERCIAL GRADES OF GERMANY.
QUARTA.
DRAWN FROM PROJECTIONS, X 450.

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No. 1

Cotswold fibre x 160. Prepared for Photograph by treatment with Potash and mounting in water.

Sample No. 48.

No. 3

Leicester fibre x 160 Prepared for Photograph by treating with Potash and mounting in water.

Sample No. 113.

No. 2

Lincoln fibre x 160. Prepared for Photograph by treatment with Potash and mounting in water.

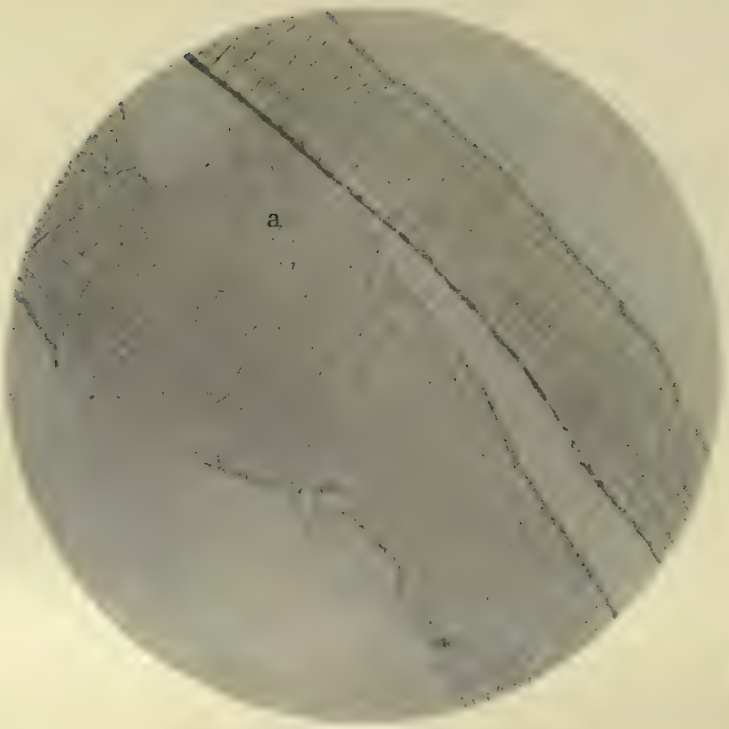
Sample No. 46.

No. 4

Southdown fibre x 160. Prepared for Photograph by treatment with Potash and mounting in water.

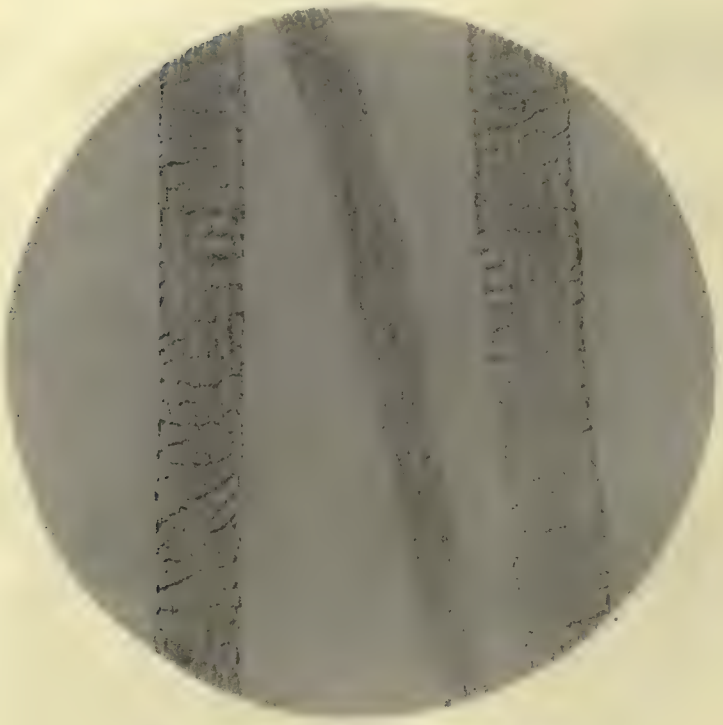
Sample No. 94

No. 5.

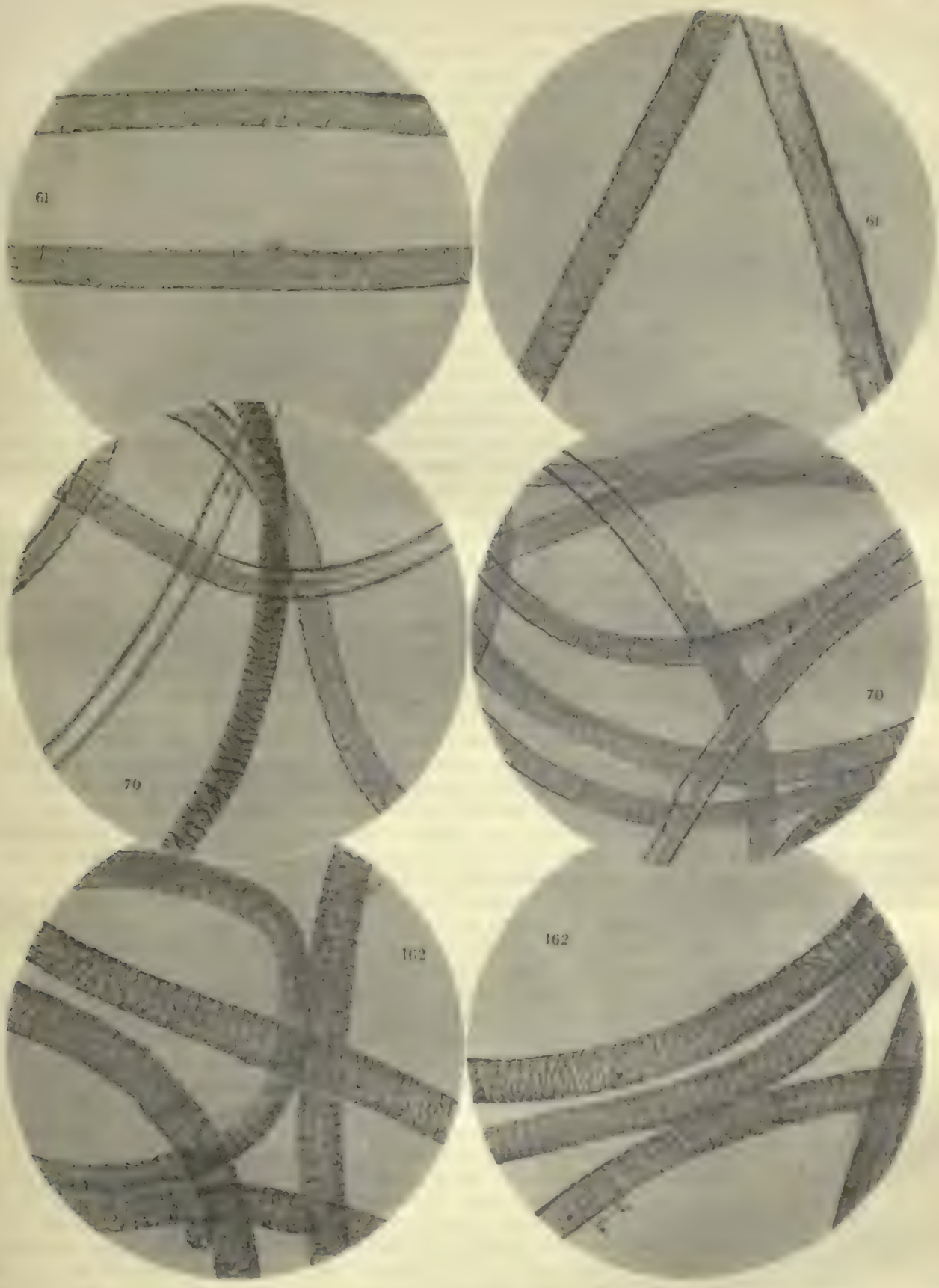


Oxford fibre x 180. Prepared for Photograph
by treatment with Potash and mounting in water.
Sample No. 65.
Enlargement at "a" due to imperfection in fibre.

No. 6.



Merino fibre x 180. Prepared for Photograph
by treating with Potash and mounting in water.
Sample No. 73.



MERINO FIBRES X 240. PREPARED FOR PHOTOGRAPH
BY TREATMENT WITH POTASH AND MOUNTING IN WATER.
SAMPLES NO. 61, 70 AND 162.

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characteristics of the fibers of these long-wooled breeds. When we examine the fibers in the fingers we find the Leicester and Lincoln more glossy and smoother than the Cotswold. When we examine the fibers of these same breeds with the microscope we find that there is less tendency to serration in the edges of the image in the former than in the latter, and when we examine them after staining with silver-nitrate, as in the preparation for these drawings, we find that in many cases the angular forms are almost universal, the pavement form is prominent, and little or no overlapping seems to occur in the Leicester and Lincoln, the Lincoln taking the lead in this particular. In the Cotswold the angular character is less marked, and in the Leicester we find certain fibers in which it is wanting, while the gradations from one to the other almost serve as a means for their differentiation. Further study of these forms and their arrangement will doubtless furnish data upon which estimations of the felting property of wools may be based.

Now, in the other classes, on the other hand, we find very great differences in the width of the scales in different directions. In the Merino we find the scales to be somewhat like narrow patches drawn around the circumference of the fiber, and sometimes surrounding it in almost a spiral form. The broken and angular forms are here almost entirely wanting, and the curved form is more common. In many cases a parallelism in the edges is very marked, and especially so in the wools of German origin, though it is also very prominent in those from other sources. It also occurs in the "Down," but not with the same regularity, at least as far as shown in the samples we have had occasion to study. The Southdown appears to adhere most closely to the general type of finer or shorter wool forms, while in the Hampshire there is greater variation, though the characteristics are apparently fixed even here. In all of the short wools we find some exceptions, however, more prominent in the "Downs" than in the Merinos, and whether these should be ascribed to bad blood in either case or to bad nutrition of the animal during the development of the the fiber, or an impaired condition of health during the same period, it is impossible without further examination, thus far beyond our power, to determine. But we are fairly well satisfied that none of the exceptions that are here shown are due to any great admixture of foreign blood, except possibly in those of the Hampshire breed. Bad nutrition and bad health should produce variations and abnormal inequalities in the forms of the scales as well as in the outlines of the fiber itself. This point we shall endeavor to develop further on. But the influence of blood upon the form of the scales is prominently illustrated in the wool of the Oxforddown breed, a breed well known to have arisen from a cross between the Cotswold and one of the Downs. Here we see, in some cases, scales whose width varied in the different directions, the parallel edges and the greater or less overlapping; but at the same time we find very many fibers showing the irregular angular forms characteristic of the long wools, while the other markings shown are unmistakable evidences of the origin of the breed. The combination of these forms is well shown in the figures of Plate VI, at *a a*.

The pertinacity of these distinct forms is especially marked in the crosses between the long-wooled breeds and the Merinos. Here we find both forms in the same fleece in varying proportion, depending much upon the grade of the animal. Of course the characteristics of the one side may be largely obliterated by continued breeding toward the other, but the experience we have had in all the work seems to show that when once the bloods are mixed there is always a tendency to revert to either type in certain individuals, even under the most careful conditions of breeding. We have seen instances in which the wool of animals (Merinos) of excellent reputation and undisputed pedigree, contained fibers which in their structure and general characteristics, and indeed in specific characteristics as well, led to the opinion that at some point in the history of the ancestors there must have been some contamination with Cotswold blood. At any rate it impressed us with the importance of more extended and careful study of the minute structure of the fiber by breeders of stud flocks, in which the purity of blood is of the highest value. The forms in question are so readily detected and are so marked that they present a ready means for weeding out the imperfections so greatly dreaded, when pure strains are the principal object in view. So also in the Oxford, which is known to be descended from a cross between the Cotswold and one of the Downs, we find the characteristics of both breeds marked with the greatest distinctness. Some of the fibers show in their minute structure all the characteristics of the Downs; others again appear like the Cotswold, while a third class seems to combine the characteristics of both. The angular forms of the scale of the Cotswold are very persistent here, and the pigment matter confined to a central canal or distributed through a fibro-cellular tissue of the fiber is also present, though to not the same degree as in the Cotswold.

An instance of this may be seen in Plate XXIV, Sample 275 E, showing the image of fibers of a sample of commercial grade of "fine unwashed wool." Of its origin we have no knowledge; but from its characteristics we conclude it is from a Merino contaminated with long-wool blood.

In further illustration of these peculiarities we have taken occasion to make photo-micrographs of fibers so treated as to render the markings due to the forms of the scales more prominent, and the results of this work are shown in the accompanying Plates XXVII and XXVIII. To prepare the fibers to be photographed they are placed upon the glass slide used in microscopic examinations, covered with thin glass and treated carefully with a solution of potassium hydroxide (caustic potash). This causes the fiber to swell and become somewhat distorted, but does not interfere greatly with the object we have in view, viz, to show the different forms of the scales in the wools of different breeds. When the fibers have thus become softened, the cover-glass is carefully pressed down

so as to secure a flat field, the fiber under examination brought into focus, the image projected into the camera and fixed on the plate by the ordinary photographic process. Here we find much the same differences as before, and we see how easy it is to determine the breed to which a fiber belongs. In the Cotswold we find the lines indicating the edges of the scales more irregular and broken than in the Leicester and Lincoln; and more so in the Lincoln than in the Leicester. In all of them the scales are more or less oblong, but in width they are much larger than in the Downs and Merino. The Oxford here, as in other particulars, shows indications of its origin, and the Southdown the similarities with the Merino already mentioned. In this process no staining material was necessary to develop the lines, but in the preparation of the plates given before it was necessary to stain the fibers with silver-nitrate in solution in concentrated ammoninum hydroxide (ammonia water). However, the plates will sufficiently explain themselves without further discussion.

We may now return to the consideration of the remaining portion of the structure of the fiber, the pigment canal already mentioned. This is a matter of some importance since it is a leading characteristic of some of the long wools, and is apparently wanting in short wools. If we compare locks of Cotswold and Lincoln wool we find that a large proportion of the fibers in the former are more white and opaque than the others, and that the whole bunch has very much less of luster than the Lincoln wool. When these Cotswold fibers are examined in the natural state with the microscope we find extending through the center a band of matter more or less broad, which is very much more opaque than the matter surrounding it. The forms of this band are given in the various plates showing Cotswold wools. It appears to be of irregular thickness and to allow more light to pass through at certain places than at others. If these fibers be treated with potassium hydroxide as already described until the fibro-cellular tissue is completely broken down we find that there will be separated a column of comparatively large angular cells apparently filled with granular coloring matter or pigment concerning the character of which very little is known. This coloring matter, according to Bohm, is distributed over the inner walls of the cells, but so far as our own examinations go this is difficult to determine. The forms of the cells thus separated from each other, shown in the accompanying diagram, are taken from a microscope projection. In this case the fiber had been completely broken down by treating with potash solution and abrasion. The changes which the structure of the pigment column undergoes in this gradual disintegration are well illustrated in the photomicrographs taken for the purpose. But the fibers here represented had been treated with sulphuric acid and heat, and the action stopped at the proper stages by addition of water.

In Fig. 1 of the plate we have a representation of the first action of the acid or the first stage of the disintegration. The fibro-cellular texture of the fiber is apparent. The pigment column in the center is beginning to break down and the lines of separation between the cells are plainly seen.

In Fig. 2 the fibro-cellular matter is still further destroyed, pressure upon the cover-glass has forced the pigment cells apart, and in some cases they may be seen completely detached. In most of them, also, we see indications of the granular character of their contents.

Passing to Fig. 3, we find the disintegration complete. The cells are fully separated from each other, and the granules of pigment within them are easily seen. These are considered sufficient for our illustration. The several intermediate stages not here shown may be seen by any one having a fairly good microscope. It is only necessary to clean the wool by washing with ammonia, then to place a small tuft on a slide cover with thin glass and apply sulphuric acid and watch its action, occasionally pressing upon the cover. First, the scales will rise and disappear; then the fibro-cellular tissue will be acted upon and eventually dissolved, and at the same time the pigment column will enlarge, the cells begin to separate, and finally float away singly through the acting medium. After the complete disintegration, water may be added to stop further action of the acid, and the cells studied at leisure.

According to the German authorities, the presence of the pigment column or canal in the fibers has a serious effect upon their strength, but we do not find in our experiments that this statement is confirmed. We find it almost peculiar to the Cotswold breed, so far as our examinations have extended, though Bohm and others say it belongs to all animals covered with fibers tending to the hairy type. We have seen only traces of it in the Lincoln wool, however, and none whatever in the wool of the pure Merinos and Downs. In the Oxforddown wools it is naturally present, and is another evidence of the origin of the breed. It is not always confined to a single column or canal, nor does it always extend throughout the entire length of the fiber containing it, for it frequently occurs in detached masses in the center of the fiber, or distributed through nearly the whole of the fibro-cellular tissue. This refers only to the white pigment, which alone we have had an opportunity to study. The colored, black, or brown pigments are not so confined, and differ in character, being distributed through the entire mass of the fibro-cellular tissue. Since it seems to affect neither the strength nor the elasticity of the fiber, so far as we have been able to determine, the principal interest it may have will depend upon the fact that it is peculiar to the long-wool breeds, principally the Cotswold, and entirely wanting in pure Merinos. Taken in connection with the diameter of the fiber and the forms of the scales, it must assist in the determination of the purity of the blood of the animal under consideration. If a fiber containing the pigment canal be treated with a strong solution of potassium or sodium hydroxide, and with the aid of heat it gradually disintegrates, the fibro-cellular tissue is completely broken down and many of the cells dissolved, while the cells constituting the pigment column or canal remain intact. By

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Fig. 3.

[illegible] x 50
[illegible]
[illegible]
sulphuric acid and mounting in water.

Fig. 4

Pigment Cana[illegible] x 50
Final result of disintegration.

DISINTEGRATION OF PIGMENT CANAL

longer action of the solvent they are separated from each other, and upon agitation caused by pressure upon the cover-glass they separate and become distributed independent of each other through the surrounding mass. We we then find them to consist of irregular masses, in many cases angular, in some cases rounded, and generally lined or filled with granular matter of which, as already stated, the true nature has never been determined.

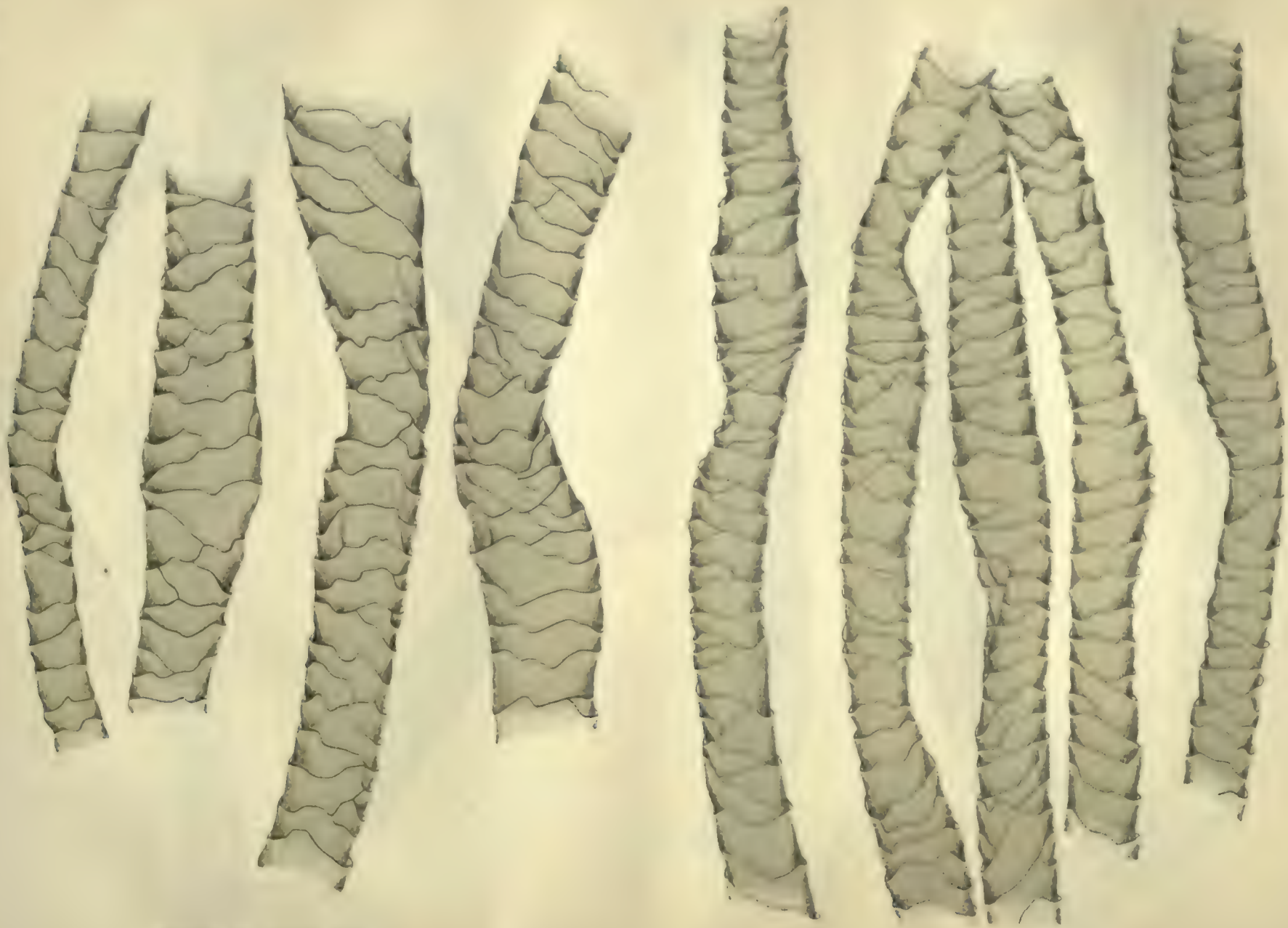
In the study of the wools constituting the collection under present examination, one cannot avoid being struck with the lack of what the German authorities term *Evenness Treue*, or uniformity in the diameter of the fiber throughout its length, and this property is probably one of the most important, if it does not even stand first in the determination of the commercial and industrial value of the staple. It is the result of two causes, the one atrophy of the fiber at certain parts, the other hypertrophy. In other words, when we examine a sample of uneven staple with the microscope, we notice a greater width of the images at some parts than at others, and these variations are by no means wanting in interest, nor are they absent in many of the animals said to have received excellent care and feed. In some cases we find a sudden contraction of the fiber at certain points (atrophy), and this is often sufficient to give the edge of the image a decidedly notched appearance. In other cases the contraction is more gradual, the progressive diminution of the width of the image extending over a greater length of the fiber. In the enlargement, however (hypertrophy), such sharp variations do not obtain; the fiber begins to enlarge at a certain point, and the enlargement may continue through the length of the fiber until it attains a diameter even twice as great as at other parts. These peculiarities as they occur in Oxforddown wools are well illustrated in Plate XXXIV, and the forms here shown are characteristic as they occur in other wools as well. But it is in the Merino wools that they have most importance and greatest influence upon the value of the staple. In Plates XXX, XXXI, XXXII, and XXXIII we have forms found in some of the grades of the Boston market. We see that in almost all cases where these abnormal forms occur there are changes in the form and size of the epithelial scales of the outer layer as well as in the diameter of the fiber, and there can be no doubt that the internal structure is equally affected. Their influence upon the strength of the fiber, its elasticity, and its consequent value for manufacturing purposes can scarcely be questioned. Where atrophies occur the fiber must necessarily be weakened, while on the other hand staples in which the atrophied fibers occur in any important proportion must interfere with the regular passage of the material through the several machines and processes of the factory. In both cases, therefore, they seriously impair the value of the products, and it behooves growers to look to the causes which, may have a tendency to bring them out. What these causes may be we have had no opportunity to determine, but there can be little doubt that bad nutrition, exposure, and consequent impaired health or constitution are the more prominent. A fevered condition of the system probably tends to check normal exercise of the functions of the skin, and hence the growth of the fiber resulting in atrophy, or it may have the contrary effect and cause hypertrophy. Indeed, when we examine the fiber of breeding ewes we find a certain regularity in the occurrence of the atrophied parts, and it has been suggested that these may correspond with periods of menstruation when the system is more or less disordered in consequence of the natural exercise of this function.* At any rate we have sufficient evidence to show that when animals have been well fed and cared for, and when the health of the animal has been uniform, such deformities in the fibers do not exist. And that the growth of wool is retarded, or at least that the diameter of the fiber is diminished by impaired health of the animal, is well illustrated in the following bit of our own experience. On one occasion a prominent breeder of Merino sheep submitted a sample of his wool for the determination of its fineness. By the system of measurement followed we found that the fibers were finer at a certain part or point in their development than at others, and by simple calculation it was easy to determine at what part of the season the finer portion of the staple had developed. We stated that at that season the animal must have been in ill health, and this was afterward confirmed by reference to the record of the condition of the different individuals of the flock during the year. And it further illustrates the importance of great care in the management of sheep and the value of protecting them from any sudden changes, and from the inclemencies of the weather in general.

Finally, in connection with the form of the fiber we have to consider the characteristics of the cross-section. If a fiber be cut off in a direction perpendicular to its longitudinal axis, we find that it is by no means a perfect cylinder with a perfectly curved surface, and that the forms exhibited present certain important peculiarities. The method of making and examining these cross-sections has already been described. In our earlier experiments it was our practice to stain the fibers with silver before mounting them, but we have since learned that this operation, involving the exercise of great care and the expenditure of much time, labor, and patience, may be dispensed with. Our present practice, therefore, consists in supporting the fiber in the paraffine in the natural condition and mounting the sections made upon the microscope slide, then covered with the thin glass circle and a solution of aniline red or blue applied under the cover-glass. After a short time the freshly cut surface of the end of the fiber absorbs the color from the solutions and its outlines become very sharply defined. They may then be studied at leisure, or the image projected and drawn. By the latter means we have been able to trace the figures presented in Plates XXXV to XXXVII, inclusive, showing the outlines of the sections of the fibers of

* In the wools of stud flocks, where every care is bestowed upon the animals, these peculiarities are scarcely noticeable, but in those large flocks from which the markets draw their largest supplies the conditions seem to be especially suited to their development.

the several more important breeds represented in our collections. We here notice a somewhat greater tendency to the true cylindrical form in the long wools. In the Cotswold and Oxford wools we note the existence of the center of pigment which is wanting in all the others. In no case do the variations in form appear sufficient to base anything like a system of classification upon, but they are very interesting from several points of view, of which probably the determination of the fineness of the fiber, to be discussed further on, is the most important.

Unless the sections be treated with some disintegrating solvent, they present no appearance of cellular structure but seem uniform and transparent throughout; and no distinction between the external epithelial layer and the inner cylinder of fibro-cellular tissue can be detected. It is, however, interesting to note, in the examination of the plates, the striking similarity in the forms of the Cotswold, Lincoln, and Oxford wools on the one hand, and of the Merino and Southdown on the other, showing the justice of a classification into the groups that naturally separated. Taking in connection with the other peculiarities already mentioned it is possible that the cross-sections may prove of some assistance in the determination of purity of blood. With these considerations upon the minute structure we may proceed with the description of the examinations made under the other provisions of the law, and especially the length and fineness of the fiber.



Sample No. 274 Between x and 1.

Sample 275 A. Fine, unwashed

ABNORMAL FORMS IN COMMERCIAL GRADES
DRAWN FROM SOLAR PROJECTIONS, X 250

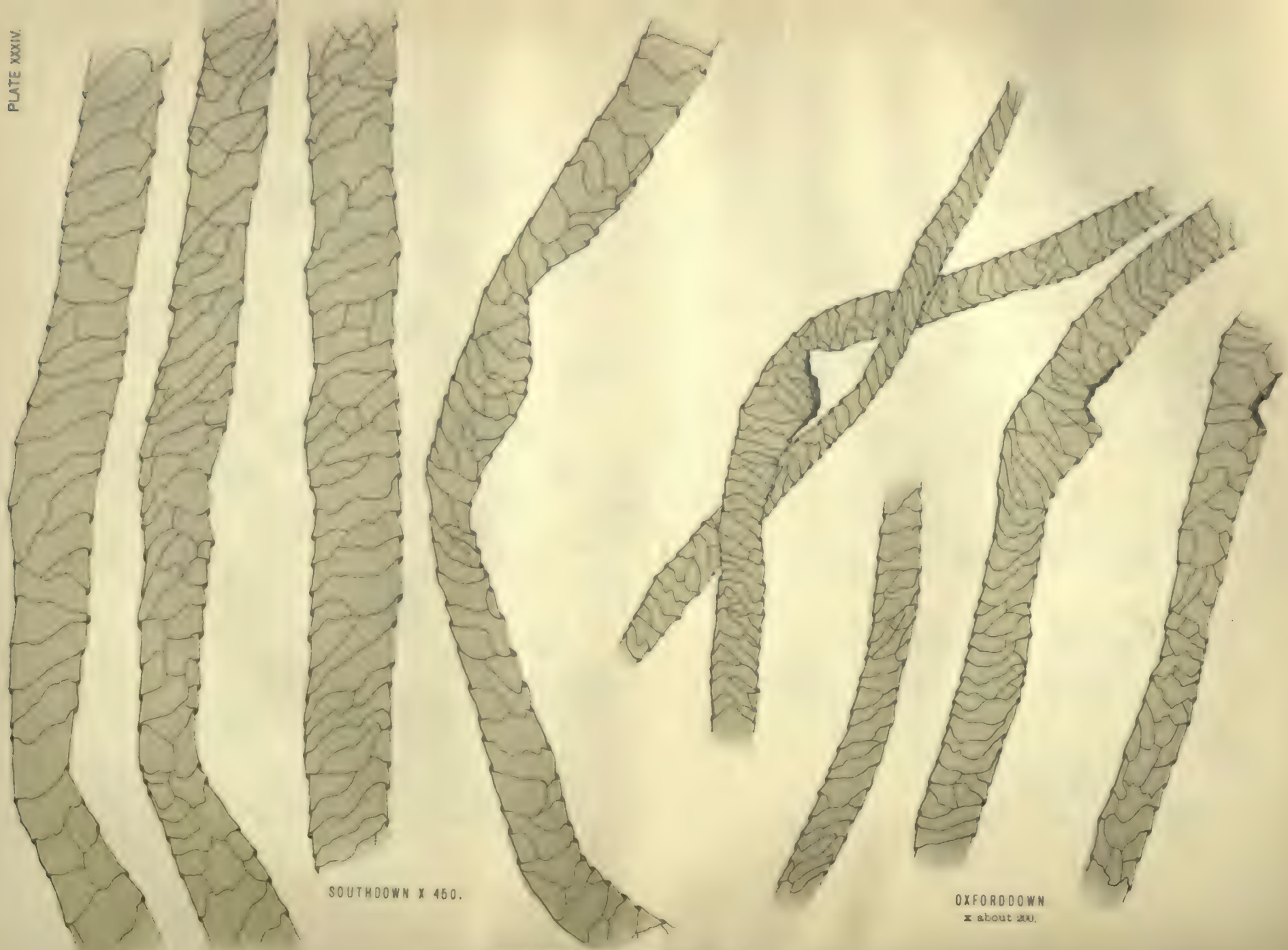
ABNORMAL FORMS IN COMMERCIAL GRADES.
F.N.E. UNWASHED
DRAWN FROM SOLAR PROJECTIONS. X 575

ABNORMAL FORMS IN COMMERCIAL GRADES.
FINE UNWASHED.
DRAWN FROM SOLAR PROJECTIONS. X 575.

Sample 277 B. PICKLOCK. Sample 276 Fine, from Dead Sheep.

ABNORMAL FORMS IN COMMERCIAL GRADES.
DRAWN FROM SOLAR PROJECTIONS, X 575.

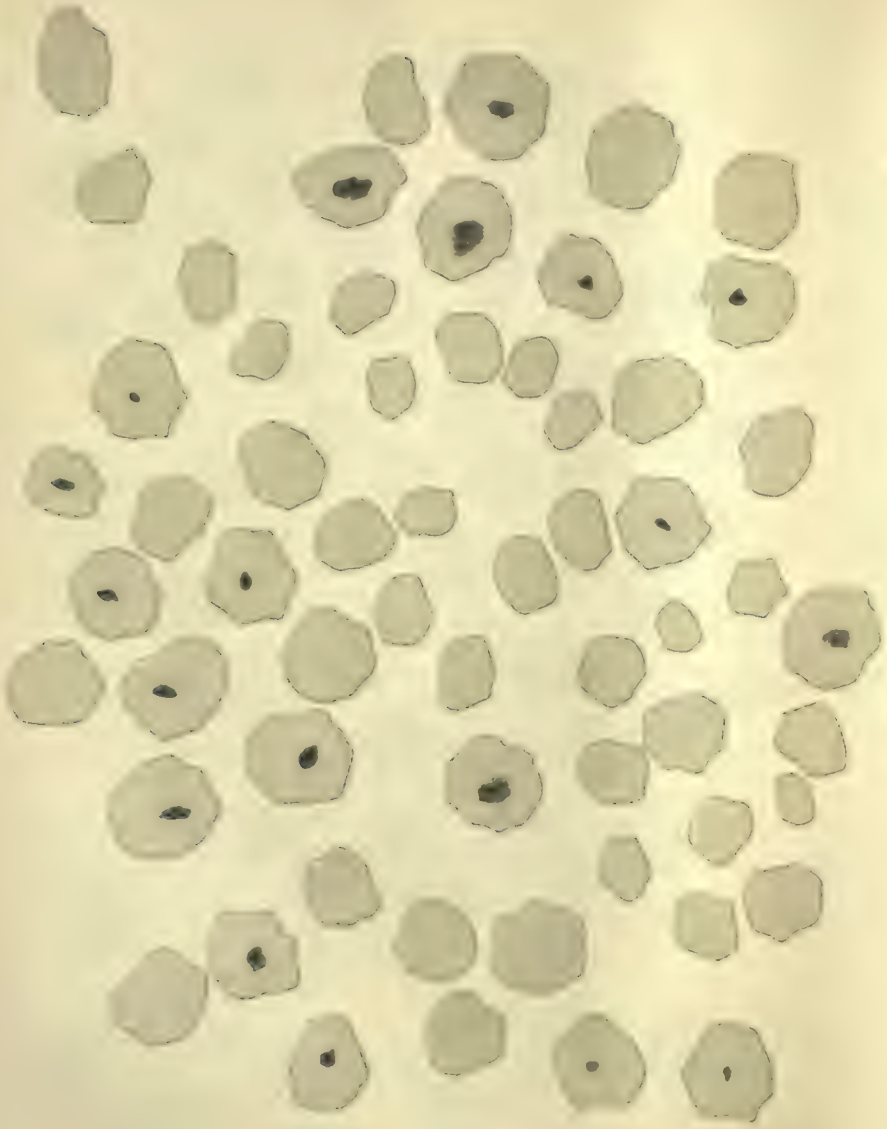
PLATE XXXIV.



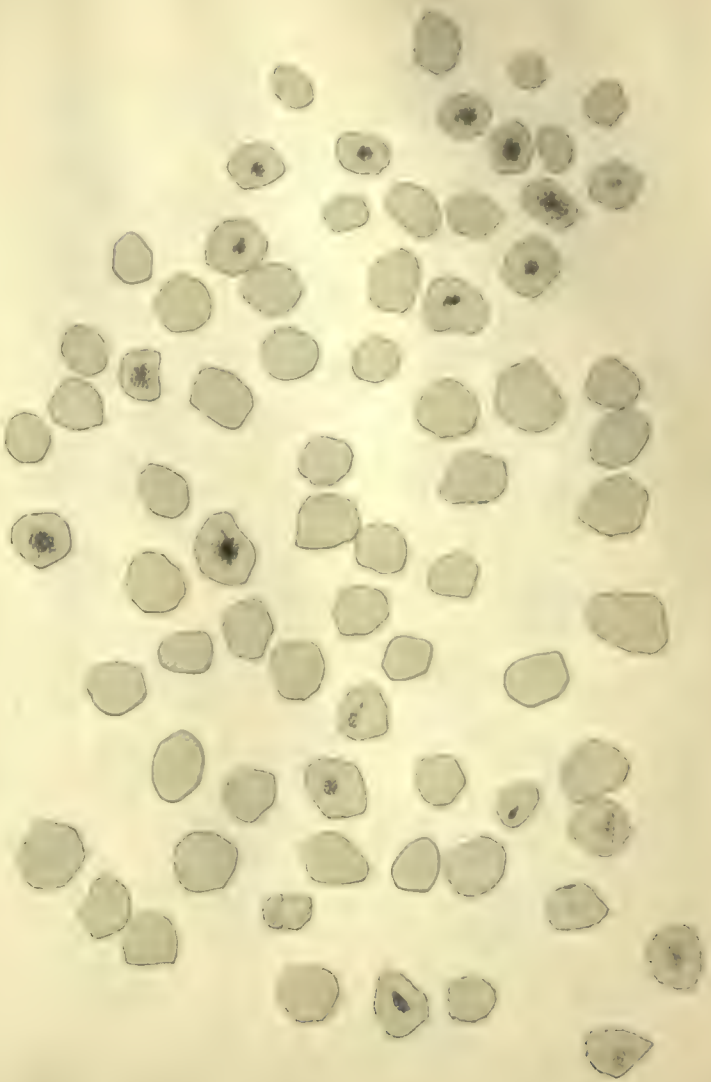
SOUTHDOWN X 450.

OXFORDDOWN
x about 200.

ABNORMAL FORMS IN "DOWN" WOOLS,
DRAWN FROM SOLAR PROJECTIONS, ENLARGED AS INDICATED.

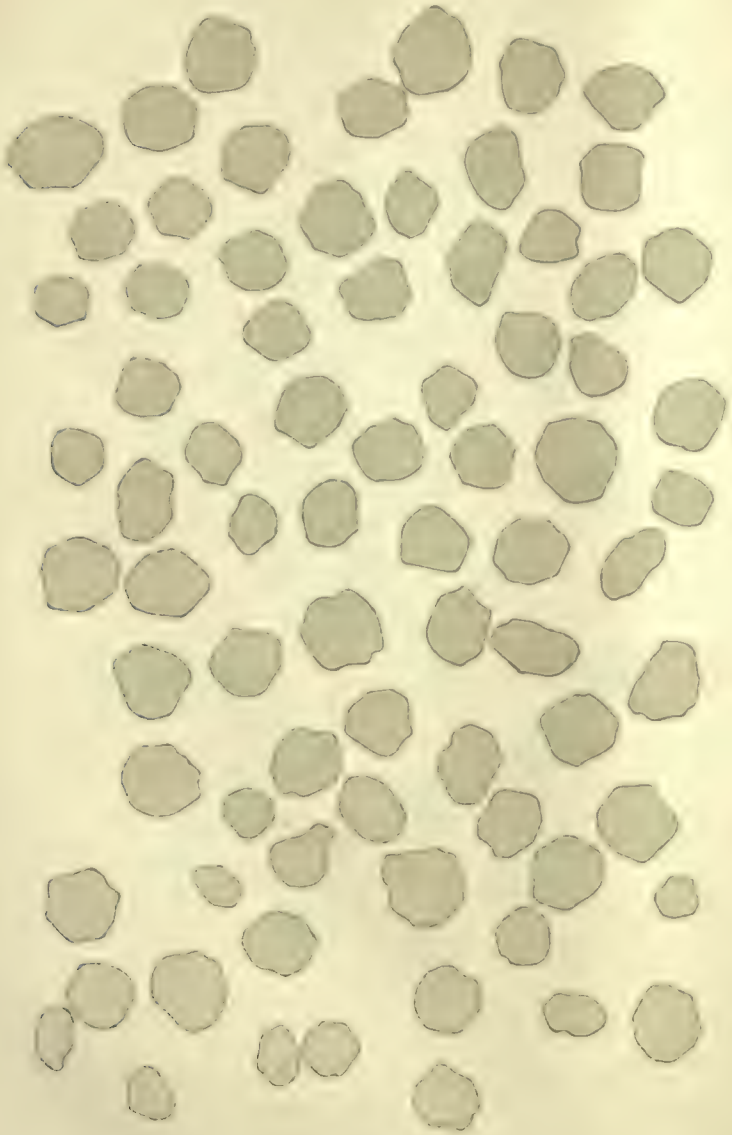


COTSWOLD.

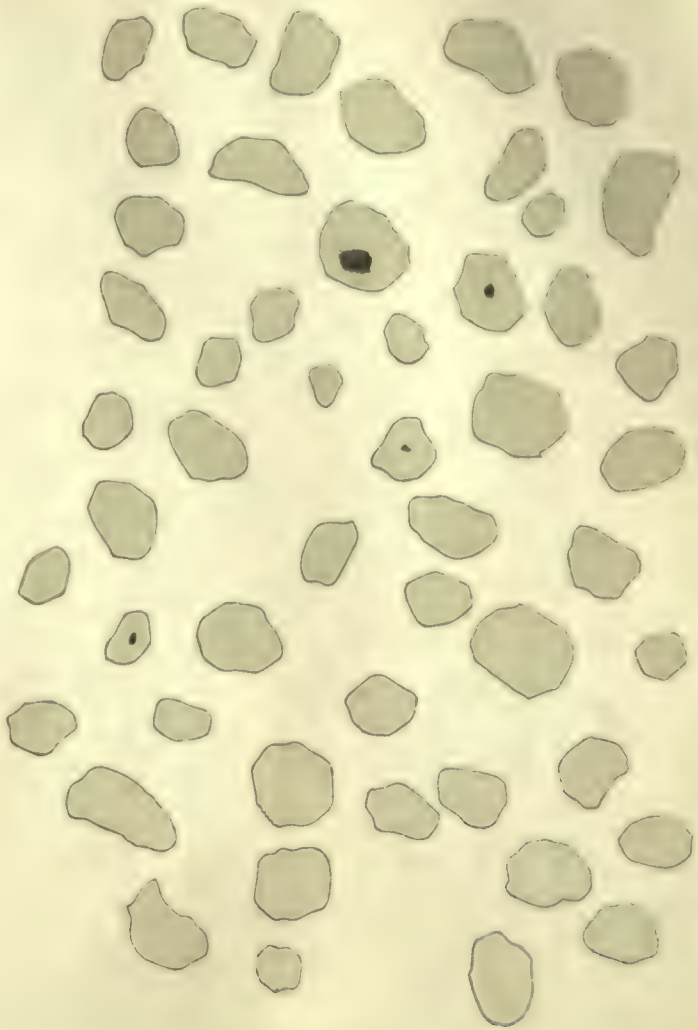


LEICESTER.

CROSS SECTIONS OF PURE BRED WOOLS,
DRAWN FROM SOLAR PROJECTIONS. X 200.

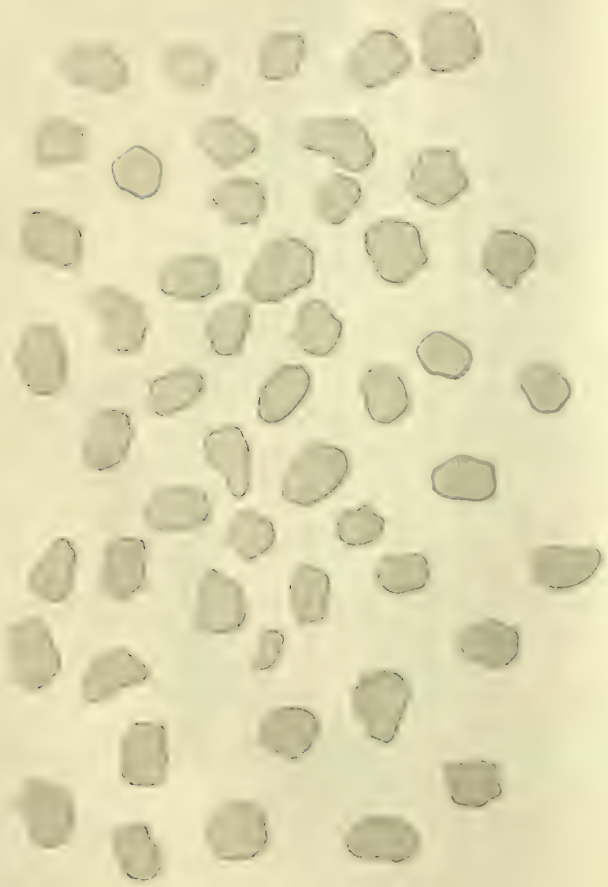


LINCOLN.



OXFORD

CROSS SECTIONS OF PURE BRED WOOLS,
DRAWN FROM SOLAR PROJECTIONS. X 200.



SOUTHDOWN.

MERINO.

CROSS SECTIONS OF PURE BRED WOOLS,
DRAWN FROM SOLAR PROJECTIONS, X 200.

CHAPTER IV.

LENGTH, CRIMP, AND FINENESS.

In the classification of wools they are naturally divided into long and short, coarse and fine, and it is therefore natural that these properties should also be discussed in connection with each other. In connection with the length, however, little need be said, for every one at all familiar with the staple in its natural condition will have little need for further information with this regard. Yet it has appeared of some importance not wholly to neglect this property in our measurements, and we have therefore taken occasion in our tables of results to insert the length of the fibers examined, as we found them in the natural condition in the sample, and they may be found in their proper place. The measurements were made upon a lock of wool readily separated from the lot without greatly disturbing its crimp, and without submitting it to any strain sufficient to remove the crimp to any extent. The results are therefore stated as length of fiber in crimp. But in the examination of these figures it must be remembered that most of the samples represented, or at least very many of them, were taken from the animals within six months after they were shorn, and therefore have attained to only half the extent of the annual development. This is true of those samples taken from the animals on exhibition. Those of the commercial grades it is presumed represent a year's growth.

Of the crimp we have even less to say, for however much there may be of interest in this characteristic of the staple from a theoretical point of view, it is not our purpose to enter into a discussion thereof here. We incline therefore to the practical side of the question, and have confined our study and measurements to the relations between the number of crimps in a given length of the crude fiber and the fineness of the latter. To this point the attention of breeders, dealers, and manufacturers, has often been directed, and there prevails a popular belief that fineness in the crimp corresponds in all cases with fineness in the fiber, and while there are prominent exceptions to this rule we find upon the comparison of the results, to be given further on, that this belief is not wholly unjustifiable. Such a relation does exist in very many instances, but it is by no means universal, and it cannot be accepted as a means of determining the fineness of the fiber of any sample under examination. We may therefore consider it directly in connection with the fineness of the fiber, and for the purposes of the comparisons we have made very careful measurements of the crimp in all the finer wools wherever it was possible to do so. At first we attempted counting the crimps in a given length of fiber, say an inch or parts of an inch, but this plan proved so troublesome, tedious, and unsatisfactory, that we were forced to abandon it, and finally we adopted the instrument devised by Bohm, and described in his Schafzucht, Vol. 1. This consisted of a series of steel plates attached to a brass disk. Each plate is notched on the edge with a number of notches for a given distance, corresponding with the average number of crimps found in the same distance in the fiber of wools of the different grades. The construction of the instrument and its application will be understood at once by a glance at the adjoining illustration, in which it is reproduced. Grasping the instrument by the small knob in the center with one hand, and with a tolerably strong magnifying glass in the other, each of the notched plates is successively placed over the sample under examination, and when the notches of the plate correspond or coincide with the crimps of the sample, the number of crimps per inch is recorded. This number was determined for each plate by carefully measuring its length and counting the number of notches upon it. These were as follows:

	Crimps per inch.
S. S. E	34
S. E	30
E	26
I P	25
II P	22
I S	20
II S	16
T	14
Q	12

The results of the measurements taken in this way are placed at the head of the column of the measurements of fineness for each sample, so that these two properties may be compared, and very little difficulty will arise in the determination of the relation between the two.

It is of course true that, as a general rule, the coarser fibers have fewer crimps per inch than the finer ones, yet the crimp of the fiber cannot always be accepted as a criterion of the absolute degree of fineness. It is only necessary to make a few comparisons to see this, and though among the breeders considerable importance is attached to it and dealers and graders often use it in making their classifications based upon fineness, its true relation has been fully recognized by those who have made a careful examination of the staple in a scientific way. Thus, Nathusius, in his Die Woll-Haare des Schafes, gives the following table bearing upon these relations and giving the average diameter of the fiber in the sample and the length of the wave in the crimp. He has given them in metric measures, and we shall not stop to translate them, referring the reader to the tables given further on by which, if he so desires, he may readily determine the values in the English standards. But as they are, they are quite sufficient for the comparison in view.

No. of sample.	Diameter.	Length of wave.	No. of sample.	Diameter.	Length of wave.
	Centi-millimeters.	*Millimeters.*		*Centi-millimeters.*	*Millimeters.*
25	1.53	1.76	21	2.21	2.00
16	1.54	1.50	26	2.24	2.60
17	1.69	1.61	19	2.76	2.03
14	1.79	1.28	20	2.81	1.61
13	2.02	1.50	22	3.14	2.76
18	2.07	1.55	23	3.40	8.60
15	2.21	1.46	24	4.16	2.01

This has been confirmed in our own measurements, as will be seen further on. This condition of the fiber cannot therefore be accepted as a reliable indication of fineness, and some other means must be adopted for the determination of this latter quality to which such a high value is attached by both breeders and manufacturers, and concerning which, with reference to our American wools at least, there has been a marked demand for information. There can be no doubt that distinctions in the fineness of the fiber may, with long experience and practice, be determined by the senses of sight and touch, but determinations made in this way, as they must necessarily do, because of the naturally wide variations of individual appreciation and judgment, have given rise to vexatious and perplexing disputes, and are even less reliable than the differences in the crimp. The difficulty of arriving at satisfactory results in this work, even by methods other than those just indicated, is illustrated in the systems of measurements devised and applied at different periods among the German investigators who have studied the physical properties of wools. The principal difficulty appears to depend upon the fact that the wool fibers are not exactly cylindrical as shown in our figures of cross-sections; that in many cases they are oval or irregular in their section, and the measurement of the size of the fiber, when fixed in one position, would be greater or less than when taken in another position. But, whether from this or other causes, we shall see that the different systems adopted for effecting the work are very numerous, and that each one has some merit is shown by the fact that all have been more or less extensively employed. They are all fully described in Bohm's valuable and interesting work, entitled "Die Schafzucht nach ihrem jetzigen rationellen Standpunkt," to which we must refer the reader of this report for more detailed data concerning them. Bohm classifies the systems and instruments as (1) those requiring the use of the microscope, (2) those not requiring the use of the microscope.

To the first division belong those which measure a single fiber at one operation and those taking the measure of several fibers at the same time. In the same way in the second grand division we have those applied to the measurement of single fibers, and those intended for the simultaneous measurement of a number of fibers.

Those involving the use of the microscope are Dollond's, Daubenton's, and Pilgram's, Nathusius's and Bohm's for measurement of single fibers, and Voigtland's and Winkler's for simultaneous measurements of several fibers; and those used without the microscope are Lerebour's, Skiadan's, Grawert's, and Thaer-Klinert's for measuring single fibers, and the Kohler instrument for measurement of a bundle of fibers. It will be impracticable for us to give here detailed descriptions of all these systems and the instruments devised for applying them; yet it will be of interest, in connection with our own work and the method employed in performing it and as a matter of comparison, to call attention to the general principles upon which they are based—they certainly exhibit the ingenuity and patient application of the German investigators in these lines of work.

The Dollond wool measure, as it is called, is one which, Bohm says, in its time enjoyed a high reputation; and it is still largely employed for measuring the fineness of fiber, while the degrees into which its indicator and scale are divided are employed to indicate the grade to which any given quality of wool belongs. It consists of a microscope, in front of which is arranged a dispersion lens, which is divided into two sections by a straight line passing through the center. This division of the lens admits of shifting of the parts upon each other in the direction of the line of section. This motion is communicated by means of a fine ratchet, and the latter, by means of a vernier, is accurately graduated to $\frac{1}{200}$ of an English inch=0.127 millimeter. In the use of the instrument the fiber to be

measured is stretched at right angles to the line of section of the divided dispersion lens, and the parts so shifted that two images appear in the field of vision instead of one; but to insure accuracy in the result the opposite edges of the two images must lie in contact, but must not overlap each other. The amount of the motion of the parts of the dispersion lens required to produce this effect will be indicated by the graduations of the ratchet and vernier and will correspond with the diameter of the fiber. The magnifying power of the instrument used is such that the image is enlarged fifty times, and each division of the vernier therefore indicates $\frac{1}{500} \div 50 = \frac{1}{10000}$ English inch or 0.00254 millimeter, and is called one degree.

The Daubenton measure consists of a glass microscope slide, which is divided into squares by parallel lines 0.1 Paris line apart. The microscope employed enlarges the image fourteen times, so that each of the squares on the glass slide represents $\frac{1}{140}$ line, $\frac{1}{1680}$ inch, or 0.0161 millimeter. This instrument is not adapted to the measurement of finer wools, because its graduations are not sufficiently minute, and it has not therefore been received with much favor.

Pilgram's measure consists of a glass microscope slide, highly polished, and bearing a scale ruled to $\frac{1}{1000}$ Paris line. The fiber to be measured is stretched across the scale, which is placed under the microscope, and the measure read off directly.

Nathusius considered it desirable to measure both axes of the cross-section of the fiber, and to this end he constructed an arrangement by which the fiber could be turned while being examined. Upon a microscope slide he fixed two pieces or standards of wax, and through each of these standards thrust two needles, both in the same line, and their points directed towards each other. The other ends of the needles were covered with balls or knobs of sealing-wax. In operation the fiber to be examined was stretched between the points of the needles and affixed to them by means of wax; so that when brought into the focus of the microscope the fiber could be brought into any position with reference to the axes of cross-section by turning the knobs of the needles.

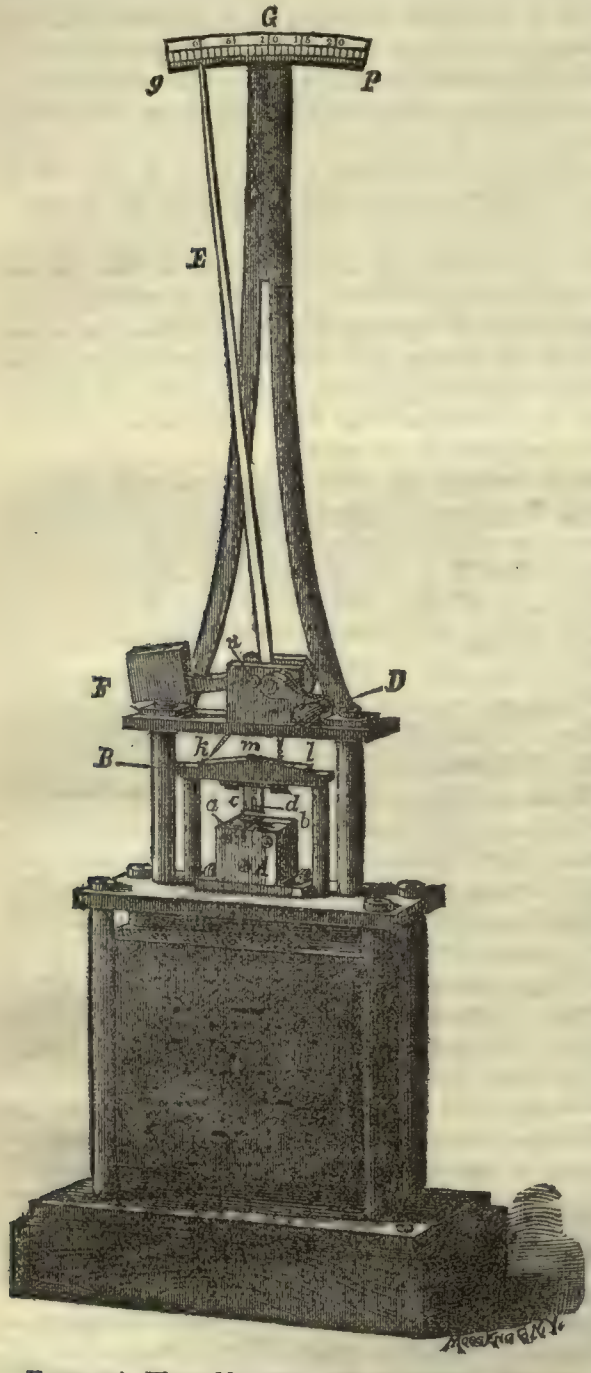
Bohm, following the same principle, arranged metallic clamps to hold the fiber to be examined. In the microscopic apparatus for measuring several fibers at the same time Voigtland's seems to have been received with the greatest favor. In the operation of his instrument ten fibers are stretched between the prongs of a brass fork, and by a special mechanism they are brought into such contact that they form a comparatively broad band with no interstices intervening between the individual fibers. They are then brought into the focus of the microscope and the band measured by a scale divided into parts of $\frac{1}{5100}$ Vienna inch each. The result of the measurement divided by ten gives the average size of a single hair. The tedious character of the work involved in arranging the fibers upon the fork and the possibilities of spaces occurring between them renders this arrangement of doubtful value. On the other hand, the variations in a single fiber can be indicated as closely as $\frac{1}{51000}$ Vienna inch, or 0.00325 millimeter, which corresponds with a little over one-eighth degree Dolloud.

Winkler's measure is much the same in principle and construction as Voigtland's. The instruments for measurement of fibers without the use of the microscope depend principally upon the degree of separation of two bodies effected by the fibers to be examined when brought between them. There is one, however, which does not correspond with this description. It is the invention of Lerebour, and consists of a fine round metallic rod or needle bearing a finely divided scale. To measure the fineness of the fiber the latter is wound round the path of the rod bearing the scale in such a way that one coil is in perfect contact with another. Then from the number of degrees covered and the number of coils made the fineness is calculated. The instrument has the same disadvantages as the Voigtland measure with reference to the spaces that may occur between the fibers, and for this and other reasons it has been but little used. Of those measures depending upon the degree of separation of two bodies caused by the insertion of the wool fiber between them three have been devised, differing somewhat in form of construction. The Skiadan measure consists of two metallic bars arranged like the arms of tongs. To one of these bars is attached a long double lever indicator, the extreme point of which, when the bars are separated, moves over a graduated arc, the degrees of which correspond with the size of the opening between the bars magnified 2,000 times. One degree of the scale being 50 English inch would consequently show variations of 0.00001 of an inch or 0.000254 millimeter.

Grawert's measure is constructed on the same principles. He also uses tongs, the jaws of which are of brass, steel, or mother-of-pearl. The tongs are opened and closed by means of a screw, the thread of which is so adjusted that an opening of one Paris line corresponds with one turn of the screw. The opening of the tongs corresponds with a larger opening of the jaws. At the joint of the tongs is arranged an indicator, which swings over a graduated scale, whose larger divisions are equal to one twenty-fifth of a circle. One turn of the screw, opening and closing the jaws, causes the indicator to pass over one of these larger divisions, and these latter being divided into forty parts, one of the smaller divisions of the scale corresponds with $\frac{1}{1000}$ Paris line or 0.002255 millimeter opening of the jaws. The indicator is provided with a micrometer screw, bearing a scale by which one-tenth of a turn can be read. Each one-tenth turn of this screw, therefore, corresponds with $\frac{1}{10000}$ Paris line or 0.0002255 millimeter opening of the jaws. On each side of the jaws are vertical parts, which are very flexible and elastic, and attached to these and horizontal and parallel with the jaws are small clamps or forceps. The jaws of the instruments being opened and the fiber stretched between these forceps and firmly clamped, it will be held horizontally between

the jaws. By jarring the handles a vibration of the fiber is set up, and the jaws are then carefully closed upon it by means of the screw attachment. As soon as the jaws close upon the fiber the motion is stopped. The position of the indicator upon the scale is recorded and the experiment repeated to insure accuracy of the measurement.

The Thaer-Klinert modification of this instrument offers but few advantages over it. It consists principally in shortening the parts supporting the forceps for holding the fiber, making them somewhat lower than the jaws of the instrument. The inner surface of the jaws is different, being rounded or oval, so as to come in contact at a single point, and a section would have the appearance of a segment of a circle. The fiber to be examined is stretched tightly between the forceps, and from above, through the jaws of the tongs. The fiber then has the appearance of being bowed. The tongs are then slowly opened until finally the fiber passes through the opening as soon as it is large enough.



KOEHLER'S WOOL MEASURE, ONE-HALF SIZE. (FROM BOHM.)

Bohm says that both these instruments are desirable; expeditious in operation, giving accurate results, and faultless in construction. But the first may be considered preferable to the second, since in the latter the stretched fiber might pass through the open jaws before the true size would be indicated. So also would a flattened fiber pass through by the smaller exit instead of the larger, though really in either case the average fineness would scarcely be represented.

The difficulties in the way of securing good average measurements of a collection of fibers led Koehler to the idea of measuring by mechanical means a large number of fibers in a bundle at the same time. He reasoned that since only the best thoroughbred fine wool is round or cylindrical, the most accurate method of arriving at correct notions of the fineness of the fiber would be to determine the space a given number of fibers together would occupy or the surface their cross-section would cover, and for this purpose he proposed measuring 100 fibers at one operation and reducing from the area of the cross-section found the average size of the individual fibers. In practice with his instrument the size of the fiber is indicated in degree of fineness. The instrument in question is illustrated in the accompanying cut. In the block A, is the mortise *b*, crossed at right angles by the slot *a*, which extends entirely across the block. Above the block A is the movable piece B, which is connected by the side rods to the weight C. To the middle of the piece B is fixed the plunger *c*, having a rectangular slot, *d*, of the same width as the slot *a*. The plunger is of such size as to exactly fit the mortise *b*. The system of movable piece B and weight C is raised and lowered by means of the chain I, connected with the crank and pulley D. To determine the fineness of a bundle of fibers it is stretched through the slot *a* and the plunger *c* allowed to descend over it. The sides of the plunger fit into corresponding mortises in the larger mortise *b*, which extend deeper into the block than the slot *a* or mortise *b*. The bundle of fibers will then be compressed into a rectangular space bounded by the sides of the slots *a* of the block A and *d* of the plunger *c*. The coarser the fibers the greater will be this space and the less will the plunger descend, and a relation will therefore exist between the vertical motion of the plunger and the size of the fiber. To determine and show this relation the indicator E and the corresponding scale G are employed. The indicator is connected at its lower end at right angles with the loaded lever F. When the indicator is out of gearing with the movable piece B, its point is drawn by means of the loaded lever toward the end (*g*) of the scale. This scale is arbitrarily divided into twenty parts, the 0 being at *g*. To connect the indicator with the movable piece B, the pointed shaft *k* is fixed to the lever-arm F by the nut *n*. On the top of the piece B and at its middle point is a small agate button, *m*, with a conical cavity in the top.

To operate the instrument the bundle of fibers to be measured is put in place, the movable piece and plunger let fall, the lever-arm raised so that the point of the shaft *k* may rest in the conical depression of the agate but-

ton *m*. The pointed shaft *k* now constitutes a support for the lever-arm. The less the plunger descends upon the coarser fibers to be tested the greater will be the elevation of the lever, and the more will the indicator be moved toward the end *p* of the scale G, and so the indicator will mark a larger or smaller number on the scale according to the coarseness or fineness of the fibers. The numbers on the scale indicate the relative figure corresponding with the fineness of the sample, and each degree corresponds with an average diameter of fiber equal to 4.233 millimeters.

Koehler's instrument, as said before, is highly recommended by all the German authorities upon the physical properties of wools, and it is largely used everywhere that wools are extensively measured. It was used exclusively by Jeppe in his measurements at the University of Leipzig, and was strongly indorsed by the Leipzig wool convention. Bohm says it is one of the most important instruments we have for arriving at a correct knowledge of the character of the wool fibers. There is no doubt that the instrument may be used in all hands, by breeders as well as wool dealers and manufacturers, and by the scientific student of wools as well as either of these, in cases in which time is an object not to be taken into account. And this brings into consideration the disadvantages of the instrument for the work in which we have been engaged. To insure accuracy, and indeed to secure any kind of satisfactory results with the instrument, it is absolutely necessary that the fibers to be examined be washed, an operation which of itself involves considerable manipulation and consequent consumption of time. This, again, must be accompanied with drying, a matter to which important attention must be given, because of the influence of moisture upon the scoured fiber. Then the fibers must be carefully counted in order that exactly 100 fibers may be employed for each test. This has been mentioned as an advantage to the examiner of wool, because the operation educates the eye and hand in the detection of differences in the external characteristics of the staple; but while this is true, whenever time is the most important consideration other means for securing accurate results in measuring must be resorted to, and on this account we have in our work made use of the microscope.

We recognize the difficulty already referred to depending upon the form of the cross-section of the fibers, but this difficulty we think has been largely obviated in the method we have employed. Our method was as follows: Since when so many fibers are mounted at the same time they are almost free to take any position, in preparing the samples for measurement the length of the fiber in each sample was first taken and recorded, and so also was the number of crimps per inch. A small lock was then taken from each sample, and beginning with the butt and proceeding toward the top it was cut, as nearly as possible, into equal sections varying in length with the length of the fiber of each variety. Thus in the long wools, Cotswold and Lincoln, the sections were made about one inch in length, while in the middle and fine wools they were made about one-half inch long. This divided the locks from the samples of long wools into from five to seven parts and the middle wools into about four and the fine wools into three to five, according to the age of the staple. The locks were cut in sections while in grease and without being washed in any way, and the parts at once mounted in Canada balsam on glass slides and covered with thin glass in condition for examination with the microscope. To each slide was attached a label indicating the number of the sample from which the lock to which the section belonged was taken and a numbered letter indicating the position of the section in the length of the fibers. That in the section taken from the butt end of the lock was numbered B, the next section taken from the part nearest the butt B^2; the next B^3, and so on. The slides thus prepared were placed in racks in which they are preserved.

In making most of the measurements we used a Crouch student's binocular microscope with a Spencer student's objective having a one-eighth inch focus and 120° angular aperture; but for part of the measurements, because of greater coarseness of the fiber and greater thickness of the cover-glass, a Crouch objective having a quarter-inch focus and 100° angular aperture was employed. The measure consisted of an eye-piece micrometer in a Crouch's No. 2 eye-piece, and in actual practice when the one-eighth objective was being used and the instrument in focus, the tube was so drawn that two divisions of the eye-piece micrometer corresponded exactly with one division of a stage micrometer ruled to $\frac{1}{100}$ of a millimeter or centimillimeter. With this arrangement the magnifying power of the instrument corresponded to about 530 diameters. But with the one-fourth inch objective and with the tube extended to the same extent, one division of the stage micrometer was equal to 1½ divisions of the eye-piece micrometer, and the magnifying power of the instrument was equivalent to about 400 diameters. But before placing the slide in the case, it was placed upon a hot brass plate and allowed to remain there until a moderately brisk boiling of the balsam occurred, when it was removed and placed in a clamp to hold the cover in place and press it firmly upon the group of fibers under it. Thus treated the natural grease or fatty soap of the fiber was completely disintegrated and dissolved, leaving the fiber in perfect condition for the measurement of the diameter presented to view in the microscope. In this way the cleansing and mounting were effected at the same operation. Another advantage of this mode of treatment resides in the fact that because of it the more volatile parts of the balsam are removed by the heat; as a consequence it hardens much more rapidly and the slide is ready in a greatly shorter time for examination with the microscope. At the same time all air bubbles are removed from the mounting medium, and from the fibers, thus insuring intimate contact of the latter with the former.

When the slides are to be preserved there can be no question of the superiority of balsam over the other media for mounting, such as glycerine or oil, though if the slide be needed for further use, the latter are of course to be recommended. Oil will dissolve the fatty matter, especially when heated, and will not affect the fiber, while

linseed or other drying oils might even be recommended for permanent mounts. In the actual operation of measurement each slide was placed upon the stage of the microscope, each fiber brought into focus and the eye-piece so turned that the scale of the micrometer crossed the image of the fiber at right angles. The number of gradations of the micrometer covered by the image were then read off and recorded. To obtain a fair average for the fineness of fiber thirty measurements were in most cases taken with each slide or section. The relative measurements thus obtained were reduced to actual measurements in centimillimeters by dividing by 2 or $1\frac{1}{2}$, according as the one-eighth or one-fourth objective was employed and their average calculated to determine the average size of the fibers in the section. From the averages for the sections are calculated the average fineness of the entire sample.

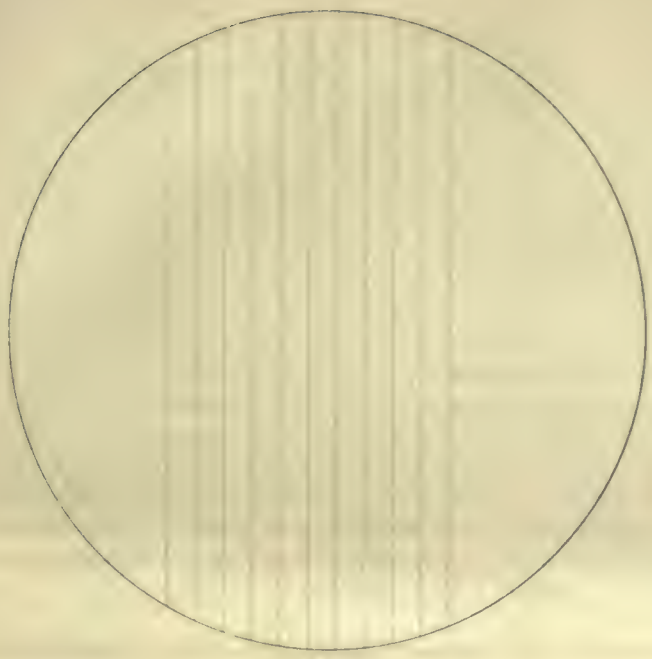
The use of the high magnifying power and the eye-piece micrometer made it possible to determine very slight differences in the size of the fiber, and in mounting so many fibers upon the same slide, and by means of the number of measurements taken to determine the fineness for each sample, the fibers must have been measured in every position, so that the same end was obtained as would have resulted in the use of the Koehler instrument (and we believe that the work was more expeditiously done than would have been possible with the latter). In our work, about two thousand sections were made and measured. The results have been brought together in the tables appended hereto. To make them more generally understood we have stated them in the metric measures in which they were taken and in thousandths of an inch and fractions of an inch. This will render all reductions unnecessary in making comparisons, and will, we hope, be found to add considerably to the value of the work. In the reductions from the French to the English standards, that is, from centimillimeters to thousandths of an inch, we need the factor 0.3937, and for reduction to fractions of an inch, $\frac{1}{2539.68}$. These reductions will have added importance in view of the fact that a leading writer on the subject of wool production has stated the values erroneously, and it is believed that his statement has led to serious errors of comparison of the qualities of wool produced at different epochs in the United States. I do not propose here to enter into a discussion of the matter, my only desire being to put into the hands of those interested in the woolen industry the correct data upon which to base any comparisons they may desire to make.

In the succeeding pages will be found a table of reductions constructed for the purpose of working out results. This table will doubtless prove of value in many ways, since it may be employed not only for the reduction of centimillimeters to parts of inches, but, by proper transposition of the decimal points, for the reduction of meters and parts of meters to inches. It may therefore be applied for the reduction of other than microscopic measurements. The relation between the two scales will be better seen and understood by reference to the photolithographic plate in which photo-micrographs of the two scales are reproduced. In this country it has not been the custom to base the commercial grades of wool upon the fineness of the fiber, as is the practice in Germany, and no standards of fineness of grades has therefore been determined. But in order that comparisons may be made if desirable, we give below the standards of fineness determined by the leading German authorities on the subject, believing they will not be without interest. We have selected the figures of Bohm, Jeppe, and Uecherlin. Bohm, in his table, gives the number of crimps per inch corresponding with the different grades of fineness, and we reproduce them here because in the tables of results of our own measurements we have stated the number of crimps per inch in each sample whenever it was obtainable. The relation between the number of crimps per inch and the fineness of the fiber has been a fertile subject of dispute, and will give added interest to the somewhat dry data we have to present.

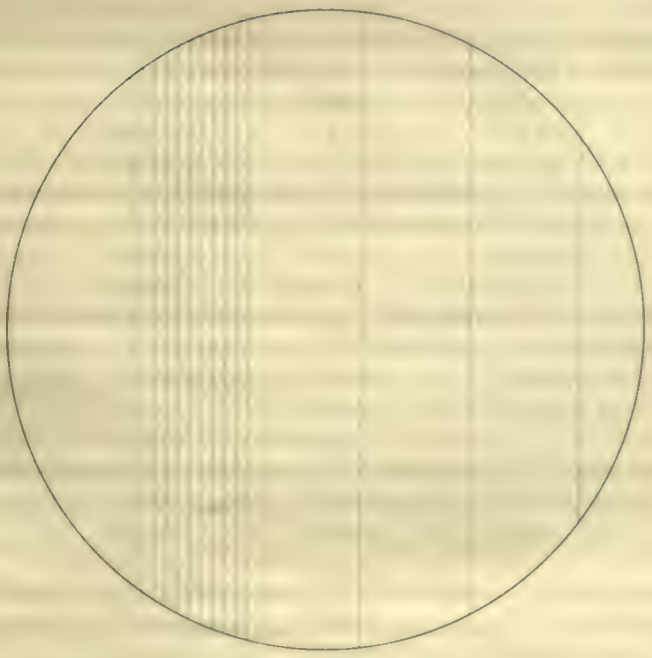
The figures for the several standard grades given by these authorities are presented in the following tables, in which the French standard employed has been reduced to the English standard. The first table is that given by Bohm in his "Schafzucht," Vol. I, p. 182.

Grade.	Number of crimps per inch.	Measurements of fineness.		
		In centimillimeters.	In thousandths of an inch.	In fractions of an inch.
Super electa plus plus	*32	1.25 to 1.50	0.4921 to 0.5905	$\frac{20}{40}$ to $\frac{15}{25}$
Super electa plus	30 to 32	1.50 1.60	0.5905 0.6299	$\frac{15}{25}$ $\frac{14}{22}$
Super electa	28 30	1.65 1.775	0.6496 0.6988	$\frac{13}{20}$ $\frac{11}{16}$
Prima electa	26 28	1.775 1.90	0.6988 0.7480	$\frac{11}{16}$ $\frac{10}{14}$
Secunda electa	24 26	1.90 2.03	0.7480 0.7885	$\frac{10}{14}$ $\frac{9}{13}$
Hohe prima	23 24	2.03 2.225	0.7885 0.8759	$\frac{9}{13}$ $\frac{7}{11}$
Prima	21 23	2.225 2.40	0.8759 0.9448	$\frac{7}{11}$ $\frac{6}{10}$
Geringe prima	20 21	2.40 2.54	0.9448 0.9999	$\frac{6}{10}$ $\frac{5}{9}$
Hohe secunda	19 20	2.54 2.666	0.9999 1.0496	$\frac{5}{9}$ $\frac{5}{8}$
Secunda	17 19	2.666 2.90	1.0496 1.1417	$\frac{5}{8}$ $\frac{5}{7}$
Geringe secunda	16 17	2.90 3.175	1.1417 1.2499	$\frac{5}{7}$ $\frac{7}{9}$
Tertia	13 16	3.175 3.70	1.2499 1.4566	$\frac{7}{9}$ $\frac{8}{9}$
Quarta	0 13	3.70	1.4566	$\frac{8}{9}$

* And above.



X 380.



X 160.

MICROMETER SCALE USED IN MEASUREMENTS OF FINENESS.
FROM PHOTO MICROGRAPH.

Jeppe gives the following classification and value:

Grade.	Measurements of fineness.					
	In centimillimeters.		In thousandths of an inch.		In fractions of an inch.	
Super electa	1.65	to 1.77	0.6496	to 0.6968	11/16	to 11/16
Electa	1.90	2.03	0.7480	0.7985	11/16	11/16
(1) Prima	2.09	2.15	0.7969	0.7993	11/16	11/16
(2) Prima	2.215	2.47	0.8720	0.9724	11/16	11/16
Secunda	2.58	2.66	0.9960	1.0496	11/16	11/16
Tertia	2.66	3.42	1.0496	1.2464	11/16	11/16
Quarta	3.29	4.05	1.2992	1.5767	11/16	11/16

And Wecherlin gives the following:

Grade.	Measurements of fineness.					
	In centimillimeters.		In thousandths of an inch.		In fractions of an inch.	
(1) Super electa		1.26		0.4960		11/16
(2) Super electa		1.52		0.5984		11/16
(1) Electa	1.52	to 1.77	0.5984	to 0.6968	11/16	to 11/16
(2) Electa	1.77	2.03	0.6968	0.7985	11/16	11/16
(1) Prima	2.03	2.28	0.7985	0.8976	11/16	11/16
(2) Prima	2.28	2.53	0.8976	0.9960	11/16	11/16
Secunda	2.53	2.785	0.9960	1.0964	11/16	11/16
Tertia	2.785	3.04	1.0964	1.1826	11/16	11/16
Quarta	3.04	3.54	1.1826	1.2936	11/16	11/16

In the presentation of the results of our own measurements we have considered that it will be of interest not only to those most directly concerned, that is, the exhibitors of the animals here represented, but to all who may have occasion to compare the relations to be pointed out, or to work out others, to give the record of all the figures obtained; that is, to give the individual measurements as well as the averages of the results. For, taken in connection with the data given in our catalogue, and furnished elsewhere, they must afford important subjects for study in lines which have either escaped our observation, or which from the nature of the case we have been unable in the present investigation to dwell upon; and further, from the fact that both breeders and manufacturers in different parts of the country express the fineness in the decimal fractions of an inch, and in the vulgar fractions respectively. We have in our translations of the figures we obtained with the metric scale used in our measurements stated them in the two equivalents mentioned. In order to facilitate these translations or reductions we first constructed the general table for values, ranging from 1.000 to 9.999, given below. This table may be made to serve a useful purpose in many ways. In the first place it may be used by others in the same way in which it has served us in the translation of micrometric measurements from French to English standards, or *vice versa*. Or by removing the decimal points it may be used for the reduction of values of higher denomination, as millimeters, centimeters, or even meters, to inches or parts of inches.

We present this table in advance of the others because it may be needed by our readers for certain comparisons in the study of the subsequent tables. In each division the figures of the first column represent centimillimeters, the second thousandths of an inch, and the third vulgar fractions of an inch.

I.—*Table for reduction of centimillimeters to fractions of an inch.*

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
1.000	0.3937	1/2539	1.039	0.4090	1/2444	1.078	0.4244	1/2355	1.117	0.4397	1/2273	1.156	0.4551	1/2196	1.195	0.4704	1/2125	1.234	0.4858	1/2058
1.001	0.3940	1/2537	1.040	0.4094	1/2442	1.079	0.4248	1/2353	1.118	0.4401	1/2271	1.157	0.4555	1/2194	1.196	0.4708	1/2122	1.235	0.4862	1/2056
1.002	0.3944	1/2534	1.041	0.4098	1/2439	1.080	0.4251	1/2351	1.119	0.4405	1/2269	1.158	0.4559	1/2192	1.197	0.4712	1/2121	1.236	0.4866	1/2054
1.003	0.3948	1/2532	1.042	0.4102	1/2437	1.081	0.4255	1/2349	1.120	0.4409	1/2267	1.159	0.4562	1/2191	1.198	0.4716	1/2119	1.237	0.4870	1/2053
1.004	0.3952	1/2529	1.043	0.4106	1/2434	1.082	0.4259	1/2347	1.121	0.4413	1/2265	1.160	0.4566	1/2189	1.199	0.4720	1/2117	1.238	0.4874	1/2051
1.005	0.3956	1/2527	1.044	0.4110	1/2432	1.083	0.4263	1/2345	1.122	0.4417	1/2263	1.161	0.4570	1/2187	1.200	0.4724	1/2116	1.239	0.4877	1/2049
1.006	0.3960	1/2524	1.045	0.4114	1/2430	1.084	0.4267	1/2342	1.123	0.4421	1/2261	1.162	0.4574	1/2185	1.201	0.4728	1/2114	1.240	0.4881	1/2048
1.007	0.3964	1/2522	1.046	0.4118	1/2427	1.085	0.4271	1/2340	1.124	0.4425	1/2259	1.163	0.4578	1/2183	1.202	0.4732	1/2112	1.241	0.4885	1/2046
1.008	0.3968	1/2519	1.047	0.4122	1/2425	1.086	0.4275	1/2338	1.125	0.4429	1/2257	1.164	0.4582	1/2181	1.203	0.4736	1/2111	1.242	0.4889	1/2044
1.009	0.3972	1/2517	1.048	0.4125	1/2423	1.087	0.4279	1/2336	1.126	0.4433	1/2255	1.165	0.4586	1/2179	1.204	0.4740	1/2109	1.243	0.4893	1/2043
1.010	0.3976	1/2514	1.049	0.4129	1/2420	1.088	0.4283	1/2334	1.127	0.4436	1/2253	1.166	0.4590	1/2178	1.205	0.4744	1/2107	1.244	0.4897	1/2041
1.011	0.3980	1/2512	1.050	0.4133	1/2418	1.089	0.4287	1/2332	1.128	0.4440	1/2251	1.167	0.4594	1/2176	1.206	0.4748	1/2105	1.245	0.4901	1/2039
1.012	0.3984	1/2509	1.051	0.4137	1/2416	1.090	0.4291	1/2329	1.129	0.4444	1/2249	1.168	0.4598	1/2174	1.207	0.4751	1/2103	1.246	0.4905	1/2038
1.013	0.3988	1/2507	1.052	0.4141	1/2414	1.091	0.4295	1/2327	1.130	0.4448	1/2247	1.169	0.4602	1/2172	1.208	0.4755	1/2102	1.247	0.4909	1/2036
1.014	0.3992	1/2504	1.053	0.4145	1/2412	1.092	0.4299	1/2325	1.131	0.4452	1/2245	1.170	0.4606	1/2170	1.209	0.4759	1/2100	1.248	0.4913	1/2035
1.015	0.3996	1/2502	1.054	0.4149	1/2409	1.093	0.4303	1/2323	1.132	0.4456	1/2243	1.171	0.4610	1/2168	1.210	0.4763	1/2098	1.249	0.4917	1/2033
1.016	0.3999	1/2499	1.055	0.4153	1/2407	1.094	0.4307	1/2321	1.133	0.4460	1/2241	1.172	0.4614	1/2166	1.211	0.4767	1/2096	1.250	0.4921	1/2031
1.017	0.4003	1/2497	1.056	0.4157	1/2405	1.095	0.4311	1/2319	1.134	0.4464	1/2239	1.173	0.4618	1/2165	1.212	0.4771	1/2094	1.251	0.4925	1/2030
1.018	0.4007	1/2494	1.057	0.4161	1/2402	1.096	0.4314	1/2317	1.135	0.4468	1/2237	1.174	0.4622	1/2163	1.213	0.4775	1/2093	1.252	0.4929	1/2028
1.019	0.4011	1/2492	1.058	0.4165	1/2400	1.097	0.4318	1/2315	1.136	0.4472	1/2235	1.175	0.4625	1/2161	1.214	0.4779	1/2091	1.253	0.4933	1/2026
1.020	0.4015	1/2489	1.059	0.4169	1/2398	1.098	0.4322	1/2313	1.137	0.4476	1/2233	1.176	0.4629	1/2159	1.215	0.4783	1/2090	1.254	0.4936	1/2025
1.021	0.4019	1/2487	1.060	0.4173	1/2395	1.099	0.4326	1/2312	1.138	0.4480	1/2231	1.177	0.4633	1/2157	1.216	0.4787	1/2088	1.255	0.4940	1/2023
1.022	0.4023	1/2485	1.061	0.4177	1/2393	1.100	0.4330	1/2310	1.139	0.4484	1/2229	1.178	0.4637	1/2155	1.217	0.4791	1/2086	1.256	0.4944	1/2022
1.023	0.4027	1/2483	1.062	0.4181	1/2391	1.101	0.4334	1/2306	1.140	0.4488	1/2227	1.179	0.4641	1/2153	1.218	6.4795	1/2084	1.257	0.4948	1/2020
1.024	0.4031	1/2480	1.063	0.4185	1/2389	1.102	0.4338	1/2304	1.141	0.4492	1/2225	1.180	0.4645	1/2152	1.219	0.4799	1/2083	1.258	0.4952	1/2018
1.025	0.4035	1/2487	1.064	0.4188	1/2386	1.103	0.4342	1/2302	1.142	0.4496	1/2223	1.181	0.4649	1/2150	1.220	0.4803	1/2081	1.259	0.4956	1/2117
1.026	0.4039	1/2475	1.055	0.4192	1/2384	1.104	0.4346	1/2300	1.143	0.4499	1/3221	1.182	0.4653	1/2148	1.221	0.4807	1/2080	1.260	0.4960	1/2016
1.027	0.4043	1/2472	1.066	0.4196	1/2382	1.105	0.4350	1/2298	1.144	0.4503	1/2220	1.183	0.4657	1/2146	1.222	0.4811	1/2078	1.261	0.4964	1/2015
1.028	0.4047	1/2470	1.067	0.4200	1/2380	1.106	0.4354	1/2296	1.145	0.4507	1/2218	1.184	0.4661	1/2144	1.223	0.4814	1/2076	1.262	0.4968	1/2014
1.029	0.4051	1/2468	1.068	0.4204	1/2377	1.107	0.4358	1/2294	1.146	0.4511	1/2216	1.185	0.4665	1/2142	1.224	0.4818	1/2074	1.263	0.4972	1/2010
1.030	0.4055	1/2466	1.069	0.4208	1/2375	1.108	0.4362	1/2292	1.147	0.4515	1/2214	1.186	0.4669	1/2141	1.225	0.4822	1/2073	1.264	0.4976	1/2009
1.031	0.4059	1/2463	1.070	0.4212	1/2373	1.109	0.4366	1/2290	1.148	0.4519	1/2212	1.187	0.4673	1/2139	1.226	0.4826	1/2171	1.265	0.4980	1/2007
1.032	0.4062	1/2460	1.071	0.4216	1/2371	1.110	0.4370	1/2288	1.149	0.4523	1/2210	1.188	0.4677	1/2137	1.227	0.4830	1/2069	1.266	0.4984	1/2006
1.033	0.4066	1/2458	1.072	0.4220	1/2369	1.111	0.4374	1/2286	1.150	0.4527	1/2208	1.189	0.4681	1/2135	1.228	0.4834	1/2068	1.267	0.4988	1/2004
1.034	0.4070	1/2456	1.073	0.4224	1/2366	1.112	0.4377	1/2283	1.151	0.4531	1/2206	1.190	0.4685	1/2133	1.229	0.4838	1/2066	1.268	0.4992	1/2002
1.035	0.4074	1/2453	1.074	0.4228	1/2364	1.113	0.4381	1/2281	1.152	0.4535	1/2204	1.191	0.4688	1/2131	1.230	0.4842	1/2064	1.269	0.4996	1/2000
1.036	0.4078	1/2451	1.075	0.4232	1/2362	1.114	0.4385	1/2279	1.153	0.4539	1/2202	1.192	0.4692	1/2130	1.231	0.4846	1/2063	1.270	0.4999	1/1999
1.037	0.4082	1/2449	1.076	0.4236	1/2360	1.115	0.4389	1/2277	1.154	0.4543	1/2200	1.193	0.4696	1/2128	1.232	0.4850	1/2061	1.271	0.5003	1/1998
1.038	0.4086	1/2446	1.077	0.4240	1/2358	1.116	0.4393	1/2275	1.155	0.4547	1/2198	1.194	0.4700	1/2127	1.233	0.4854	1/2059	1.272	0.5007	1/1996

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
1.273	0.5011	1/1995	1.312	0.5165	1/1935	1.351	0.5318	1/1879	1.390	0.5472	1/1827	1.429	0.5625	1/1777	1.468	0.5778	1/1730	1.507	0.5931	1/1685
1.274	0.5015	1/1993	1.313	0.5169	1/1934	1.352	0.5322	1/1877	1.391	0.5476	1/1825	1.430	0.5629	1/1776	1.469	0.5783	1/1728	1.508	0.5936	1/1684
1.275	0.5019	1/1991	1.314	0.5173	1/1932	1.353	0.5326	1/1877	1.392	0.5480	1/1824	1.431	0.5633	1/1774	1.470	0.5787	1/1727	1.509	0.5940	1/1683
1.276	0.5023	1/1990	1.315	0.5174	1/1931	1.354	0.5330	1/1875	1.393	0.5484	1/1823	1.432	0.5637	1/1773	1.471	0.5791	1/1726	1.510	0.5944	1/1681
1.277	0.5027	1/1988	1.316	0.5181	1/1929	1.355	0.5334	1/1874	1.394	0.5488	1/1821	1.433	0.5641	1/1773	1.472	0.5795	1/1725	1.511	0.5948	1/1680
1.278	0.5031	1/1987	1.317	0.5185	1/1928	1.356	0.5338	1/1872	1.395	0.5492	1/1820	1.434	0.5645	1/1771	1.473	0.5799	1/1724	1.512	0.5952	1/1679
1.279	0.5035	1/1985	1.318	0.5188	1/1929	1.357	0.5342	1/1871	1.396	0.5496	1/1819	1.435	0.5649	1/1769	1.474	0.5803	1/1722	1.513	0.5956	1/1678
1.280	0.5039	1/1984	1.319	0.5192	1/1925	1.358	0.5346	1/1870	1.397	0.5499	1/1817	1.436	0.5653	1/1768	1.475	0.5807	1/1721	1.514	0.5960	1/1677
1.281	0.5043	1/1982	1.320	0.5196	1/1923	1.359	0.5350	1/1868	1.398	0.5503	1/1816	1.437	0.5657	1/1767	1.476	0.5811	1/1720	1.515	0.5964	1/1676
1.282	0.5047	1/1981	1.321	0.5200	1/1922	1.360	0.5354	1/1867	1.399	0.5507	1/1815	1.438	0.5661	1/1766	1.477	0.5814	1/1719	1.516	0.5968	1/1675
1.283	0.5051	1/1979	1.322	0.5204	1/1921	1.361	0.5358	1/1866	1.400	0.5511	1/1814	1.439	0.5665	1/1764	1.478	0.5818	1/1718	1.517	0.5972	1/1674
1.284	0.5055	1/1977	1.323	0.5208	1/1919	1.362	0.5362	1/1864	1.401	0.5515	1/1812	1.440	0.5669	1/1763	1.479	0.5822	1/1717	1.518	0.5976	1/1673
1.285	0.5059	1/1976	1.324	0.5212	1/1918	1.363	0.5366	1/1863	1.402	0.5519	1/1811	1.441	0.5673	1/1762	1.480	0.5826	1/1716	1.519	0.5980	1/1672
1.286	0.5062	1/1974	1.325	0.5216	1/1916	1.364	0.5370	1/1861	1.403	0.5523	1/1811	1.442	0.5677	1/1761	1.481	0.5830	1/1714	1.520	0.5984	1/1670
1.287	0.5066	1/1972	1.326	0.5220	1/1915	1.365	0.5374	1/1860	1.404	0.5527	1/1808	1.443	0.5681	1/1760	1.482	0.5834	1/1713	1.521	0.5988	1/1669
1.288	0.5070	1/1971	1.327	0.5224	1/1913	1.366	0.5377	1/1859	1.405	0.5531	1/1807	1.444	0.5684	1/1758	1.483	0.5838	1/1712	1.523	0.5992	1/1668
1.289	0.5074	1/1970	1.328	0.5228	1/1912	1.367	0.5381	1/1857	1.406	0.5535	1/1806	1.445	0.5688	1/1757	1.484	0.5842	1/1711	1.522	0.5996	1/1667
1.290	0.5078	1/1968	1.329	0.5232	1/1910	1.368	0.5385	1/1856	1.407	0.5539	1/1805	1.446	0.5692	1/1756	1.485	0.5846	1/1710	1.524	0.6000	1/1666
1.291	0.5082	1/1966	1.330	0.5236	1/1909	1.369	0.5389	1/1855	1.408	0.5543	1/1803	1.447	0.5696	1/1755	1.486	0.5850	1/1709	1.525	0.6003	1/1665
1.292	0.5086	1/1965	1.331	0.5240	1/1908	1.370	0.5393	1/1852	1.409	0.5547	1/1802	1.448	0.5700	1/1753	1.487	0.5854	1/1707	1.526	0.6007	1/1664
1.293	0.5090	1/1964	1.332	0.5244	1/1906	1.371	0.5397	1/1852	1.410	0.5551	1/1801	1.449	0.5704	1/1752	1.488	0.5858	1/1706	1.527	0.6011	1/1663
1.294	0.5094	1/1963	1.333	0.5248	1/1905	1.372	0.5401	1/1851	1.411	0.5555	1/1799	1.450	0.5708	1/1751	1.489	0.5862	1/1705	1.528	0.6015	1/1662
1.295	0.5098	1/1961	1.334	0.5251	1/1903	1.373	0.5405	1/1849	1.412	0.5559	1/1797	1.451	0.5712	1/1750	1.490	0.5866	1/1705	1.529	0.6019	1/1661
1.296	0.5102	1/1959	1.335	0.5255	1/1903	1.374	0.5409	1/1848	1.413	0.5563	1/1797	1.452	0.5716	1/1749	1.491	0.5870	1/1703	1.530	0.6023	1/1660
1.297	0.5106	1/1958	1.336	0.5259	1/1900	1.375	0.5413	1/1847	1.414	0.5566	1/1796	1.453	0.5720	1/1747	1.492	0.5874	1/1702	1.531	0.6027	1/1659
1.298	0.5110	1/1956	1.337	0.5263	1/1899	1.376	0.5417	1/1846	1.415	0.5570	1/1794	1.454	0.5724	1/1746	1.493	0.5877	1/1701	1.532	0.6031	1/1657
1.299	0.5114	1/1955	1.338	0.5276	1/1898	1.377	0.5421	1/1845	1.416	0.5574	1/1793	1.455	0.5728	1/1745	1.494	0.5881	1/1699	1.533	0.6035	1/1656
1.300	0.5118	1/1953	1.339	0.5267	1/1896	1.378	0.5425	1/1843	1.417	0.5578	1/1792	1.456	0.5732	1/1744	1.495	0.5885	1/1698	1.534	0.6039	1/1655
1.301	0.5122	1/1952	1.340	0.5275	1/1895	1.379	0.5429	1/1841	1.418	0.5582	1/1791	1.457	0.5736	1/1743	1.496	0.5889	1/1697	1.535	0.6043	1/1654
1.302	0.5125	1/1950	1.341	0.5279	1/1893	1.380	0.5433	1/1840	1.419	0.5586	1/1789	1.458	0.5739	1/1741	1.497	0.5893	1/1696	1.536	0.6047	1/1653
1.303	0.5129	1/1949	1.342	0.5283	1/1893	1.381	0.5436	1/1839	1.420	0.5590	1/1788	1.459	0.5743	1/1740	1.498	0.5897	1/1695	1.537	0.6051	1/1652
1.304	0.5133	1/1947	1.343	0.5287	1/1892	1.382	0.5440	1/1837	1.421	0.5594	1/1787	1.460	0.5747	1/1739	1.499	0.5901	1/1694	1.538	0.6055	1/1651
1.305	0.5137	1/1945	1.344	0.5291	1/1891	1.383	0.5444	1/1836	1.422	0.5598	1/1785	1.461	0.5751	1/1738	1.500	0.5905	1/1693	1.539	0.6059	1/1650
1.306	0.5141	1/1943	1.345	0.5295	1/1889	1.384	0.5448	1/1835	1.423	0.5602	1/1784	1.462	0.5755	1/1737	1.501	0.5909	1/1691	1.540	0.6062	1/1649
1.307	0.5145	1/1942	1.346	0.5299	1/1888	1.385	0.5452	1/1833	1.424	0.5606	1/1783	1.463	0.5759	1/1735	1.502	0.5913	1/1690	1.541	0.6066	1/1648
1.308	0.5149	1/1941	1.347	0.5303	1/1886	1.386	0.5456	1/1832	1.425	0.5610	1/1782	1.464	0.5763	1/1734	1.503	0.5917	1/1689	1.542	0.6070	1/1647
1.309	0.5153	1/1940	1.348	0.5307	1/1885	1.387	0.5460	1/1831	1.426	0.5614	1/1780	1.465	0.5767	1/1733	1.504	0.5921	1/1688	1.543	0.6074	1/1646
1.310	0.5157	1/1938	1.349	0.5311	1/1884	1.388	0.5464	1/1829	1.427	0.5618	1/1779	1.466	0.5771	1/1732	1.505	0.5925	1/1687	1.544	0.6078	1/1644
1.311	0.5161	1/1937	1.350	0.5314	1/1881	1.389	0.5468	1/1828	1.428	0.5622	1/1778	1.467	0.5775	1/1731	1.506	0.5929	1/1686	1.545	0.6082	1/1643

I.—Table for reduction of centimillimeters to fractions of an inch—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
1.546	0.6086	1/1642	1.585	0.6240	1/1602	1.624	0.6393	1/1563	1.663	0.6547	1/1527	1.702	0.6700	1/1492	1.741	0.6854	1/1458	1.780	0.7007	1/1427
1.547	0.6090	1/1641	1.586	0.6244	1/1601	1.625	0.6397	1/1562	1.664	0.6551	1/1526	1.703	0.6704	1/1491	1.242	0.6858	1/1457	1.781	0.7011	1/1425
1.548	0.6094	1/1640	1.587	0.6248	1/1600	1.626	0.6401	1/1561	1.665	0.6555	1/1525	1.704	0.6708	1/1490	1.743	0.6862	1/1456	1.782	0.7015	1/1425
1.549	0.6098	1/1639	1.588	0.6251	1/1599	1.627	0.6405	1/1560	1.666	0.6559	1/1524	1.705	0.6712	1/1489	1.744	0.6866	1/1456	1.783	0.7019	1/1424
1.550	0.6102	1/1638	1.589	0.6255	1/1598	1.628	0.6409	1/1560	1.667	0.6562	1/1523	1.706	0.6716	1/1488	1.745	0.6870	1/1455	1.784	0.7023	1/1423
1.551	0.6106	1/1637	1.590	0.6259	1/1597	1.629	0.6413	1/1559	1.668	0.6566	1/1522	1.707	0.6720	1/1487	1.746	0.6874	1/1454	1.785	0.7027	1/1422
1.552	0.6110	1/1636	1.591	0.6263	1/1596	1.630	0.6417	1/1558	1.669	0.6570	1/1521	1.708	0.6724	1/1486	1.747	0.6877	1/1453	1.786	0.7031	1/1421
1.553	0.6114	1/1635	1.592	0.6267	1/1595	1.631	0.6421	1/1557	1.670	0.6574	1/1520	1.709	0.6728	1/1486	1.748	0.6881	1/1452	1.787	0.7035	1/1421
1.554	0.6118	1/1634	1.593	0.6271	1/1594	1.632	0.6425	1/1556	1.671	0.6578	1/1519	1.710	0.6732	1/1485	1.749	0.6885	1/1452	1.788	0.7039	1/1420
1.555	0.6122	1/1633	1.594	0.6275	1/1593	1.633	0.6429	1/1555	1.672	0.6582	1/1518	1.711	0.6736	1/1484	1.750	0.6889	1/1451	1.789	0.7043	1/1419
1.556	0.6125	1/1632	1.595	0.6279	1/1592	1.634	0.6433	1/1554	1.673	0.6586	1/1517	1.712	0.6740	1/1483	1.751	0.6893	1/1450	1.790	0.7047	1/1418
1.557	0.6129	1/1631	1.596	0.6283	1/1591	1.635	0.6436	1/1553	1.674	0.6590	1/1516	1.713	0.6744	1/1482	1.752	0.6897	1/1449	1.791	0.7051	1/1418
1.558	0.6133	1/1630	1.597	0.6287	1/1590	1.636	0.6440	1/1552	1.675	0.6594	1/1516	1.714	0.6748	1/1481	1.753	0.6901	1/1448	1.792	0.7055	1/1417
1.559	0.6137	1/1629	1.598	0.6291	1/1589	1.637	0.6444	1/1551	1.676	0.6598	1/1515	1.715	0.6751	1/1480	1.754	0.6905	1/1447	1.793	0.7059	1/1416
1.560	0.6141	1/1628	1.599	0.6295	1/1588	1.638	0.6448	1/1550	1.677	0.6602	1/1514	1.716	0.6755	1/1480	1.755	0.6909	1/1446	1.794	0.7062	1/1415
1.561	0.6145	1/1626	1.600	0.6299	1/1587	1.639	0.6452	1/1549	1.678	0.6606	1/1513	1.717	0.6759	1/1479	1.756	0.6913	1/1446	1.795	0.7066	1/1414
1.562	0.6149	1/1625	1.601	0.6303	1/1586	1.640	0.6456	1/1548	1.679	0.6610	1/1512	1.718	0.6763	1/1478	1.757	0.6917	1/1445	1.796	0.7070	1/1414
1.563	0.6153	1/1624	1.602	0.6307	1/1585	1.641	0.6460	1/1547	1.680	0.6614	1/1511	1.719	0.6767	1/1477	1.758	0.6921	1/1444	1.797	0.7074	1/1413
1.564	0.6157	1/1623	1.603	0.6311	1/1584	1.642	0.6464	1/1546	1.681	0.6618	1/1510	1.720	0.6771	1/1476	1.759	0.6925	1/1443	1.798	0.7078	1/1412
1.565	0.6161	1/1622	1.604	0.6314	1/1583	1.643	0.6468	1/1545	1.682	0.6621	1/1509	1.721	0.6775	1/1475	1.760	0.6929	1/1443	1.799	0.7082	1/1411
1.566	0.6165	1/1621	1.605	0.6318	1/1582	1.644	0.6472	1/1544	1.683	0.6625	1/1508	1.722	0.6779	1/1474	1.761	0.6933	1/1442	1.800	0.7086	1/1410
1.567	0.6169	1/1620	1.606	0.6322	1/1581	1.645	0.6476	1/1543	1.684	0.6629	1/1507	1.723	0.6783	1/1473	1.762	0.6936	1/1441	1.801	0.7090	1/1410
1.568	0.6173	1/1619	1.607	0.6326	1/1580	1.646	0.6480	1/1542	1.685	0.6633	1/1507	1.724	0.6787	1/1473	1.763	0.6940	1/1440	1.802	0.7094	1/1409
1.569	0.6177	1/1618	1.608	0.6330	1/1579	1.647	0.6484	1/1542	1.686	0.6637	1/1506	1.725	0.6791	1/1472	1.764	0.6944	1/1439	1.803	0.7098	1/1408
1.570	0.6181	1/1617	1.609	0.6334	1/1578	1.648	0.6488	1/1541	1.687	0.6641	1/1505	1.726	0.6795	1/1471	1.765	0.6948	1/1438	1.804	0.7102	1/1407
1.571	0.6185	1/1616	1.610	0.6338	1/1577	1.649	0.6492	1/1540	1.688	0.6645	1/1504	1.727	0.6799	1/1470	1.766	0.6952	1/1438	1.805	0.7106	1/1407
1.572	0.6188	1/1615	1.611	0.6342	1/1576	1.650	0.6496	1/1539	1.689	0.6649	1/1503	1.728	0.6803	1/1469	1.767	0.6956	1/1437	1.806	0.7110	1/1406
1.573	0.6192	1/1614	1.612	0.6346	1/1575	1.651	0.6499	1/1538	1.690	0.6653	1/1502	1.729	0.6807	1/1469	1.768	0.6960	1/1436	1.807	0.7114	1/1405
1.574	0.6196	1/1613	1.613	0.6350	1/1574	1.652	0.6503	1/1537	1.691	0.6657	1/1501	1.730	0.6811	1/1468	1.769	0.6964	1/1435	1.808	0.7118	1/1404
1.575	0.6200	1/1612	1.614	0.6354	1/1573	1.653	0.6507	1/1536	1.692	0.6661	1/1500	1.731	0.6814	1/1467	1.770	0.6968	1/1434	1.809	0.7122	1/1403
1.576	0.6204	1/1611	1.615	0.6358	1/1572	1.654	0.6511	1/1535	1.693	0.6665	1/1500	1.732	0.6818	1/1466	1.771	0.6972	1/1434	1.810	0.7125	1/1403
1.577	0.6208	1/1610	1.616	0.6362	1/1571	1.655	0.6515	1/1534	1.694	0.6669	1/1498	1.733	0.6822	1/1465	1.772	0.6976	1/1433	1.811	0.7129	1/1402
1.578	0.6212	1/1609	1.617	0.6366	1/1570	1.656	0.6519	1/1533	1.695	0.6673	1/1497	1.734	0.6826	1/1464	1.773	0.6980	1/1432	1.812	0.7133	1/1401
1.579	0.6216	1/1608	1.618	0.6370	1/1569	1.657	0.6523	1/1532	1.696	0.6677	1/1496	1.735	0.6830	1/1463	1.774	0.6984	1/1431	1.813	0.7137	1/1400
1.580	0.6220	1/1607	1.619	0.6374	1/1568	1.658	0.6527	1/1531	1.697	0.6681	1/1495	1.736	0.6834	1/1462	1.775	0.6988	1/1430	1.814	0.7141	1/1400
1.581	0.6224	1/1606	1.620	0.6377	1/1567	1.659	0.6531	1/1530	1.698	0.6685	1/1494	1.737	0.6838	1/1462	1.776	0.6992	1/1430	1.815	0.7145	1/1399
1.582	0.6228	1/1605	1.621	0.6381	1/1566	1.660	0.6535	1/1529	1.699	0.6688	1/1493	1.738	0.6842	1/1461	1.777	0.6996	1/1429	1.816	0.7149	1/1398
1.583	0.6232	1/1604	1.622	0.6385	1/1565	1.661	0.6539	1/1529	1.700	0.6692	1/1493	1.739	0.6846	1/1460	1.778	0.6999	1/1428	1.817	0.7153	1/1397
1.584	0.6236	1/1603	1.623	0.6389	1/1564	1.662	0.6543	1/1528	1.701	0.6696	1/1493	1.740	0.6850	1/1459	1.779	0.7003	1/1427	1.818	0.7157	1/1396

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
1.819	0.7161	1/1396	1.858	0.7314	1/1366	1.897	0.7468	1/1339	1.936	0.7622	1/1311	1.975	0.7775	1/1285	2.014	0.7929	1/1261	2.053	0.8082	1/1237
1.820	0.7165	1/1395	1.859	0.7318	1/1365	1.898	0.7472	1/1338	1.937	0.7625	1/1311	1.976	0.7779	1/1285	2.015	0.7933	1/1260	2.054	0.8086	1/1236
1.821	0.7169	1/1394	1.860	0.7322	1/1364	1.899	0.7476	1/1337	1.938	0.7629	1/1310	1.977	0.7783	1/1284	2.016	0.7936	1/1259	2.055	0.8090	1/1235
1.822	0.7173	1/1393	1.861	0.7326	1/1364	1.900	0.7480	1/1336	1.939	0.7633	1/1309	1.978	0.7787	1/1283	2.017	0.7940	1/1259	2.056	0.8094	1/1235
1.823	0.7177	1/1392	1.862	0.7330	1/1363	1.901	0.7484	1/1335	1.940	0.7637	1/1309	1.979	0.7791	1/1283	2.018	0.7944	1/1258	2.057	0.8098	1/1234
1.824	0.7181	1/1392	1.863	0.7334	1/1363	1.902	0.7488	1/1335	1.941	0.7641	1/1308	1.980	0.7795	1/1282	2.019	0.7948	1/1257	2.058	0.8102	1/1234
1.825	0.7185	1/1392	1.864	0.7338	1/1362	1.903	0.7492	1/1334	1.942	0.7645	1/1307	1.981	0.7799	1/1282	2.020	0.7952	1/1257	2.059	0.8106	1/1234
1.826	0.7188	1/1391	1.865	0.7342	1/1361	1.904	0.7496	1/1333	1.943	0.7649	1/1307	1.982	0.7803	1/1281	2.021	0.7956	1/1256	2.060	0.8110	1/1233
1.827	0.7192	1/1390	1.866	0.7346	1/1361	1.905	0.7499	1/1333	1.944	0.7653	1/1306	1.983	0.7807	1/1280	2.022	0.7960	1/1256	2.061	0.8114	1/1232
1.828	0.7196	1/1389	1.867	0.7350	1/1360	1.906	0.7503	1/1332	1.945	0.7657	1/1306	1.984	0.7811	1/1280	2.023	0.7964	1/1255	2.062	0.8118	1/1231
1.829	0.7200	1/1388	1.868	0.7354	1/1359	1.907	0.7507	1/1331	1.946	0.7661	1/1305	1.985	0.7814	1/1279	2.024	0.7968	1/1254	2.063	0.8122	1/1231
1.830	0.7204	1/1387	1.869	0.7358	1/1358	1.908	0.7511	1/1331	1.947	0.7665	1/1304	1.986	0.7818	1/1278	2.025	0.7972	1/1254	2.064	0.8125	1/1230
1.831	0.7208	1/1387	1.870	0.7362	1/1358	1.909	0.7515	1/1330	1.948	0.7669	1/1303	1.987	0.7822	1/1278	2.026	0.7976	1/1253	2.065	0.8129	1/1229
1.832	0.7212	1/1386	1.871	0.7366	1/1357	1.910	0.7519	1/1329	1.949	0.7673	1/1303	1.988	0.7826	1/1277	2.027	0.7980	1/1253	2.066	0.8133	1/1229
1.833	0.7216	1/1385	1.872	0.7370	1/1356	1.911	0.7523	1/1328	1.950	0.7677	1/1303	1.989	0.7830	1/1276	2.028	0.7984	1/1252	2.067	0.8137	1/1228
1.834	0.7220	1/1385	1.873	0.7374	1/1355	1.912	0.7527	1/1328	1.951	0.7681	1/1302	1.990	0.7834	1/1276	2.029	0.7988	1/1251	2.068	0.8141	1/1228
1.835	0.7224	1/1384	1.874	0.7377	1/1355	1.913	0.7531	1/1327	1.952	0.7685	1/1301	1.991	0.7838	1/1275	2.030	0.7992	1/1251	2.069	0.8145	1/1227
1.836	0.7228	1/1383	1.875	0.7380	1/1354	1.914	0.7535	1/1326	1.953	0.7689	1/1300	1.992	0.7842	1/1274	2.031	0.7996	1/1250	2.070	0.8149	1/1226
1.837	0.7232	1/1382	1.876	0.7385	1/1353	1.915	0.7539	1/1326	1.954	0.7692	1/1299	1.993	0.7846	1/1274	2.032	0.7999	1/1249	2.071	0.8153	1/1226
1.838	0.7236	1/1381	1.877	0.7389	1/1352	1.916	0.7543	1/1325	1.955	0.7696	1/1298	1.994	0.7850	1/1273	2.033	0.8003	1/1249	2.072	0.8157	1/1225
1.839	0.7240	1/1380	1.878	0.7393	1/1352	1.917	0.7547	1/1324	1.956	0.7700	1/1298	1.995	0.7854	1/1272	2.034	0.8007	1/1248	2.073	0.8161	1/1225
1.840	0.7244	1/1380	1.879	0.7397	1/1351	1.918	0.7551	1/1324	1.957	0.7704	1/1297	1.996	0.7858	1/1272	2.035	0.8011	1/1248	2.074	0.8165	1/1224
1.841	0.7248	1/1379	1.880	0.7401	1/1350	1.919	0.7555	1/1323	1.958	0.7708	1/1297	1.997	0.7862	1/1271	2.036	0.8015	1/1247	2.075	0.8169	1/1223
1.842	0.7251	1/1378	1.881	0.7405	1/1350	1.920	0.7559	1/1322	1.959	0.7712	1/1296	1.998	0.7866	1/1271	2.037	0.8019	1/1246	2.076	0.8173	1/1223
1.843	0.7255	1/1378	1.882	0.7409	1/1349	1.921	0.7562	1/1322	1.960	0.7716	1/1295	1.999	0.7870	1/1270	2.038	0.8023	1/1246	2.077	0.8177	1/1222
1.844	0.7259	1/1377	1.883	0.7413	1/1349	1.922	0.7566	1/1321	1.961	0.7720	1/1295	2.000	0.7874	1/1269	2.039	0.8027	1/1245	2.078	0.8181	1/1222
1.845	0.7263	1/1376	1.884	0.7417	1/1348	1.923	0.7570	1/1320	1.962	0.7724	1/1294	2.001	0.7877	1/1269	2.040	0.8031	1/1244	2.079	0.8185	1/1221
1.846	0.7267	1/1375	1.885	0.7421	1/1347	1.924	0.7574	1/1320	1.963	0.7728	1/1293	2.002	0.7881	1/1268	2.041	0.8035	1/1244	2.080	0.8189	1/1221
1.847	0.7271	1/1374	1.886	0.7425	1/1346	1.925	0.7578	1/1319	1.964	0.7732	1/1293	2.003	0.7885	1/1267	2.042	0.8039	1/1243	2.081	0.8192	1/1220
1.848	0.7275	1/1374	1.887	0.7429	1/1345	1.926	0.7582	1/1318	1.965	0.7736	1/1292	2.004	0.7889	1/1267	2.043	0.8043	1/1243	2.082	0.8196	1/1219
1.849	0.7279	1/1373	1.888	0.7433	1/1345	1.927	0.7586	1/1317	1.966	0.7740	1/1291	2.005	0.7893	1/1266	2.044	0.8047	1/1242	2.083	0.8200	1/1219
1.850	0.7283	1/1372	1.889	0.7436	1/1344	1.928	0.7590	1/1317	1.967	0.7744	1/1291	2.006	0.7897	1/1266	2.045	0.8051	1/1241	2.084	0.8204	1/1218
1.851	0.7287	1/1371	1.890	0.7440	1/1343	1.929	0.7594	1/1316	1.968	0.7748	1/1290	2.007	0.7901	1/1265	2.046	0.8055	1/1241	2.085	0.8208	1/1218
1.852	0.7291	1/1371	1.891	0.7444	1/1343	1.930	0.7598	1/1315	1.969	0.7751	1/1289	2.008	0.7905	1/1264	2.047	0.8059	1/1240	2.086	0.8212	1/1217
1.853	0.7295	1/1370	1.892	0.7448	1/1342	1.931	0.7602	1/1315	1.970	0.7755	1/1289	2.009	0.7909	1/1264	2.048	0.8062	1/1240	2.087	0.8216	1/1216
1.854	0.7299	1/1369	1.893	0.7452	1/1341	1.932	0.7606	1/1314	1.971	0.7759	1/1288	2.010	0.7913	1/1263	2.049	0.8066	1/1239	2.088	0.8220	1/1216
1.855	0.7303	1/1369	1.894	0.7456	1/1340	1.933	0.7610	1/1313	1.972	0.7763	1/1287	2.011	0.7917	1/1262	2.050	0.8070	1/1238	2.089	0.8224	1/1215
1.856	0.7307	1/1368	1.895	0.7460	1/1339	1.934	0.7614	1/1313	1.973	0.7767	1/1287	2.012	0.7921	1/1262	2.051	0.8074	1/1238	2.090	0.8228	1/1215
1.857	0.7311	1/1367	1.896	0.7464	1/1339	1.935	0.7618	1/1312	1.974	0.7771	1/1286	2.013	0.7925	1/1261	2.052	0.8078	1/1237	2.091	0.8232	1/1214

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
2.092	0.8236	1/1213	2.131	0.8389	1/1191	2.170	0.8543	1/1170	2.209	0.8696	1/1149	2.248	0.8850	1/1129	2.287	0.9003	1/1110	2.326	0.9157	1/1091
2.093	0.8240	1/1213	2.132	0.8393	1/1191	2.171	0.8547	1/1169	2.210	0.8700	1/1149	2.249	0.8854	1/1129	2.288	0.9007	1/1110	2.327	0.9161	1/1091
2.094	0.8244	1/1212	2.133	0.8397	1/1190	2.172	0.8551	1/1169	2.211	0.8704	1/1148	2.250	0.8858	1/1128	2.289	0.9011	1/1109	2.428	0.9165	1/1090
2.095	0.8248	1/1212	2.134	0.8401	1/1190	2.173	0.8555	1/1168	2.212	0.8708	1/1148	2.251	0.8862	1/1128	2.290	0.9015	1/1109	2.329	0.9169	1/1090
2.096	0.8251	1/1211	2.135	0.8405	1/1189	2.174	0.8559	1/1168	2.213	0.8712	1/1147	2.252	0.8866	1/1127	2.291	0.9019	1/1108	2.330	0.9173	1/1089
2.097	0.8255	1/1211	2.136	0.8409	1/1188	2.175	0.8562	1/1167	2.214	0.8716	1/1147	2.253	0.8870	1/1127	2.292	0.9023	1/1108	2.331	0.9177	1/1089
2.098	0.8259	1/1210	2.137	0.8413	1/1188	2.176	0.8566	1/1167	2.215	0.8720	1/1146	2.254	0.8873	1/1126	2.293	0.9027	1/1107	2.332	0.9181	1/1089
2.099	0.8263	1/1209	2.138	0.8417	1/1187	2.177	0.8570	1/1166	2.216	0.8724	1/1146	2.255	0.8877	1/1126	2.294	0.9031	1/1107	2.333	0.9185	1/1088
2.100	0.8267	1/1209	2.139	0.8421	1/1187	2.178	0.8574	1/1166	2.217	0.8728	1/1145	2.256	0.8881	1/1125	2.295	0.9035	1/1106	2.334	0.9188	1/1088
2.101	0.8271	1/1208	2.140	0.8425	1/1186	2.179	0.8578	1/1165	2.218	0.8732	1/1145	2.257	0.8885	1/1125	2.296	0.9039	1/1106	2.335	0.9192	1/1087
2.102	0.8275	1/1208	2.141	0.8429	1/1186	2.180	0.8582	1/1164	2.219	0.8736	1/1144	2.258	0.8889	1/1124	2.297	0.9043	1/1105	2.336	0.9196	1/1087
2.103	0.8279	1/1207	2.142	0.8433	1/1187	2.181	0.8586	1/1164	2.220	0.8740	1/1144	2.259	0.8893	1/1124	2.298	0.9046	1/1105	2.337	0.9200	1/1086
2.104	0.8283	1/1207	2.143	0.8436	1/1185	2.182	0.8590	1/1163	2.221	0.8744	1/1143	2.260	0.8897	1/1123	2.299	0.9051	1/1104	2.338	0.9204	1/1086
2.105	0.8287	1/1206	2.144	0.8440	1/1184	2.183	0.8594	1/1163	2.222	0.8743	1/1142	2.261	0.8901	1/1123	2.300	0.9055	1/1104	2.339	0.9208	1/1085
2.106	0.8291	1/1205	2.145	0.8444	1/1184	2.184	0.8598	1/1162	2.223	0.8751	1/1142	2.262	0.8905	1/1122	2.301	0.9059	1/1103	2.340	0.9212	1/1085
2.107	0.8295	1/1205	2.146	0.8448	1/1183	2.185	0.8602	1/1162	2.224	0.8755	1/1141	2.263	0.8909	1/1122	2.302	0.9062	1/1103	2.341	0.9216	1/1084
2.108	0.8299	1/1204	2.147	0.8452	1/1183	2.186	0.8606	1/1161	2.225	0.8759	1/1141	2.264	0.8913	1/1121	2.303	0.9068	1/1102	2.342	0.9220	1/1084
2.109	0.8303	1/1204	2.148	0.8456	1/1182	2.187	0.8610	1/1161	2.226	0.8763	1/1140	2.265	0.8917	1/1121	2.304	0.9070	1/1102	2.343	0.9224	1/1083
2.110	0.8307	1/1203	2.149	0.8460	1/1181	2.188	0.8614	1/1160	2.227	0.8767	1/1140	2.266	0.8921	1/1120	2.305	0.9074	1/1101	2.344	0.9228	1/1083
2.111	0.8311	1/1203	2.150	0.8464	1/1181	2.189	0.8618	1/1160	2.228	0.8771	1/1139	2.267	0.8925	1/1120	2.306	0.9078	1/1101	2.345	0.9232	1/1083
2.112	0.8314	1/1202	2.151	0.8468	1/1180	2.190	0.8622	1/1159	2.229	0.8775	1/1139	2.268	0.8929	1/1119	2.307	0.9082	1/1100	2.346	0.9236	1/1082
2.113	0.8318	1/1201	2.152	0.8472	1/1180	2.191	0.8625	1/1159	2.230	0.8779	1/1138	2.269	0.8933	1/1119	2.308	0.9086	1/1100	2.347	0.9240	1/1082
2.114	0.8322	1/1201	2.153	0.8476	1/1179	2.192	0.8629	1/1158	2.231	0.8783	1/1138	2.270	0.8936	1/1118	2.309	0.9090	1/1099	2.348	0.9244	1/1081
2.115	0.8326	1/1200	2.154	0.8480	1/1179	2.193	0.8633	1/1158	2.232	0.8787	1/1137	2.271	0.8940	1/1118	2.310	0.9094	1/1099	2.349	0.9248	1/1081
2.116	0.8330	1/1200	2.155	0.8484	1/1178	2.194	0.8637	1/1157	2.233	0.8791	1/1137	2.272	0.8944	1/1117	2.311	0.9098	1/1098	2.350	0.9251	1/1080
2.117	0.8334	1/1199	2.156	0.8488	1/1177	2.195	0.8641	1/1157	2.234	0.8795	1/1136	2.273	0.8948	1/1117	2.312	0.9102	1/1098	2.351	0.9255	1/1080
2.118	0.8338	1/1199	2.157	0.8492	1/1177	2.196	0.8645	1/1156	2.235	0.8799	1/1136	2.274	0.8952	1/1116	2.313	0.9106	1/1098	2.352	0.9259	1/1079
2.119	0.8342	1/1198	2.158	0.8496	1/1176	2.197	0.8649	1/1155	2.236	0.8803	1/1135	2.275	0.8956	1/1116	2.314	0.9110	1/1097	2.353	0.9263	1/1079
2.120	0.8346	1/1197	2.159	0.8499	1/1176	2.198	0.8653	1/1155	2.237	0.8807	1/1135	2.276	0.8960	1/1115	2.315	0.9114	1/1097	2.354	0.9267	1/1078
2.121	0.8350	1/1197	2.160	0.8503	1/1175	2.199	0.8657	1/1154	2.238	0.8811	1/1134	2.277	0.8964	1/1115	2.316	0.9118	1/1096	2.355	0.9271	1/1078
2.122	0.8354	1/1196	2.161	0.8507	1/1175	2.200	0.8661	1/1154	2.239	0.8815	1/1134	2.278	0.8968	1/1114	2.317	0.9122	1/1096	2.356	0.9275	1/1077
2.123	0.8358	1/1196	2.162	0.8511	1/1174	2.201	0.8665	1/1153	2.240	0.8818	1/1133	2.279	0.8972	1/1114	2.318	0.9125	1/1095	2.357	0.9279	1/1077
2.124	0.8362	1/1195	2.163	0.8515	1/1174	2.202	0.8669	1/1153	2.241	0.8822	1/1133	2.280	0.8976	1/1113	2.319	0.9129	1/1095	2.358	0.9283	1/1077
2.125	0.8366	1/1195	2.164	0.8519	1/1173	2.203	0.8673	1/1152	2.242	0.8826	1/1132	2.281	0.8980	1/1113	2.320	0.9133	1/1094	2.359	0.9287	1/1076
2.126	0.8370	1/1194	2.165	0.8523	1/1173	2.204	0.8677	1/1152	2.243	0.8830	1/1132	2.282	0.8984	1/1112	2.321	0.0137	1/1094	2.360	0.9291	1/1076
2.127	0.8373	1/1194	2.166	0.8527	1/1172	2.205	0.8681	1/1151	2.244	0.8834	1/1131	2.283	0.8988	1/1112	2.322	0.9141	1/1093	2.361	0.9295	1/1075
2.128	0.8377	1/1193	2.167	0.8531	1/1171	2.206	0.8685	1/1151	2.245	0.8838	1/1131	2.284	0.8992	1/1111	2.323	0.9145	1/1093	2.362	0.9299	1/1075
2.129	0.8381	1/1192	2.168	0.8535	1/1171	2.207	0.8688	1/1150	2.246	0.8842	1/1130	2.285	0.8996	1/1111	2.324	0.9149	1/1092	2.363	0.9303	1/1074
2.130	0.8385	1/1192	2.169	0.8539	1/1170	2.208	0.8692	1/1150	2.247	0.8846	1/1130	2.286	0.8999	1/1110	2.325	0.9153	1/1092	2.364	0.9307	1/1074

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
2.365	0.9311	1/1073	2.404	0.9464	1/1056	2.443	0.9618	1/1039	2.482	0.9771	1/1023	2.521	0.9925	1/1007	2.560	1.0078	1/991	[illegible]	1.0232	1/977
2.366	0.9314	1/1073	2.405	0.9468	1/1056	2.444	0.9622	1/1039	[illegible]	0.9775	1/1022	[illegible]	0.9929	1/1007	2.561	1.0082	1/991	2.600	1.0236	1/976
2.367	0.9318	1/1072	2.406	0.9472	1/1055	2.445	0.9625	1/1038	[illegible]	0.9779	1/1022	[illegible]	0.9933	1/1006	2.562	[illegible]	1/991	2.601	1.0240	1/976
[illegible]	0.9322	1/1072	2.407	0.9476	1/1055	2.446	0.9629	1/1038	[illegible]	0.9783	1/1021	2.524	0.9936	1/1006	2.563	1.0090	1/990	2.602	1.0244	1/976
2.369	[illegible]	1/1072	2.408	0.9480	1/1054	2.447	0.9633	1/1037	[illegible]	0.9787	1/1021	2.525	0.9940	1/1005	2.564	[illegible]	1/990	2.603	[illegible]	1/975
2.370	0.9330	1/1071	[illegible]	0.9484	1/1054	2.448	0.9637	1/1037	[illegible]	0.9791	1/1021	2.526	0.9944	1/1005	2.565	1.0098	1/990	2.604	1.0251	1/975
2.371	0.9334	1/1071	2.410	0.9488	1/1053	2.449	[illegible]	1/1037	[illegible]	[illegible]	1/1020	2.527	0.9948	1/1005	2.566	1.0102	1/989	[illegible]	1.0255	1/974
2.372	0.9338	1/1070	2.411	0.9492	1/1053	2.450	0.9645	1/1036	2.489	0.9799	1/1020	2.528	[illegible]	1/1004	2.567	1.0106	1/989	2.606	1.0260	1/974
2.373	[illegible]	1/1070	2.412	0.9496	1/1052	2.451	0.9649	1/1036	2.490	[illegible]	1/1019	2.529	0.9956	1/1004	2.568	[illegible]	1/988	[illegible]	1.0263	1/974
2.374	0.9346	1/1069	2.413	0.9490	1/1052	2.452	0.9653	1/1035	[illegible]	0.9807	1/1019	2.530	0.9960	1/1003	2.569	1.0114	1/988	2.608	1.0267	1/973
2.375	0.9350	1/1069	2.414	0.9503	1/1052	2.453	0.9657	1/1035	2.492	[illegible]	1/1019	2.531	0.9964	1/1001	[illegible]	1.0118	1/988	2.609	1.0271	1/973
2.376	0.9354	1/1069	2.415	0.9507	1/1051	[illegible]	0.9661	1/1034	2.493	[illegible]	1/1018	[illegible]	0.9968	1/1002	2.571	1.0122	1/987	2.610	1.0275	1/973
[illegible]	[illegible]	1/1068	2.416	0.9511	1/1051	[illegible]	0.9665	1/1034	2.494	0.9818	1/1018	[illegible]	[illegible]	1/1002	2.572	1.0125	1/987	2.611	1.0279	1/973
2.378	0.9362	1/1068	2.417	0.9514	1/1050	2.456	0.9669	1/1034	[illegible]	[illegible]	1/1017	[illegible]	0.9976	1/1002	2.573	1.0129	1/987	2.612	1.0283	1/972
2.379	0.9366	1/1067	[illegible]	0.9519	1/1050	2.457	[illegible]	1/1033	2.496	[illegible]	1/1017	[illegible]	0.9980	1/1001	2.574	1.0133	1/986	2.613	[illegible]	1/971
2.380	0.9370	1/1067	2.419	0.9523	1/1049	2.458	0.9677	1/1033	2.497	[illegible]	1/1017	2.536	0.9984	1/1001	2.575	1.0137	1/986	2.614	1.0291	1/971
2.381	0.9373	1/1066	2.420	0.9527	1/1049	2.459	0.9681	1/1032	2.498	[illegible]	1/1016	[illegible]	0.9988	1/1001	2.576	1.0141	1/985	2.615	1.0295	1/971
2.382	0.9377	1/1066	[illegible]	[illegible]	1/1049	[illegible]	0.9685	1/1032	2.499	0.9838	1/1016	[illegible]	0.9992	1/1000	2.577	1.0145	1/985	2.616	[illegible]	1/970
[illegible]	0.9381	1/1065	2.422	0.9535	1/1048	2.461	[illegible]	1/1031	2.500	0.9842	1/1015	[illegible]	0.9996	1/1000	2.578	1.0149	1/985	2.617	1.0303	1/970
2.384	0.9385	1/1065	2.423	[illegible]	1/1048	[illegible]	[illegible]	1/1031	2.501	0.9846	1/1015	2.540	0.9980	1/999	2.579	1.0153	1/984	2.618	[illegible]	1/970
[illegible]	0.9389	1/1064	2.424	0.9543	1/1047	2.463	0.9690	1/1031	[illegible]	0.9849	1/1014	2.541	1.0003	1/999	[illegible]	1.0157	1/984	2.619	1.0311	1/969
2.386	0.9393	1/1064	[illegible]	0.9547	1/1047	2.464	0.9700	1/1030	[illegible]	0.9854	1/1014	2.542	1.0007	1/999	[illegible]	1.0161	1/983	2.620	[illegible]	1/969
[illegible]	0.9397	1/1063	2.426	0.9551	1/1046	2.465	0.9704	1/1030	[illegible]	[illegible]	1/1014	2.543	1.0011	1/998	2.582	1.0165	1/983	2.621	1.0318	1/968
2.388	0.9401	1/1063	2.427	0.9555	1/1046	2.466	0.9708	1/1029	[illegible]	0.9862	1/1013	[illegible]	1.0015	1/998	2.583	1.0169	1/982	2.622	1.0322	1/968
2.389	0.9405	1/1063	2.428	0.9559	1/1045	2.467	0.9712	1/1029	2.506	0.9866	1/1013	2.545	1.0019	1/997	[illegible]	1.0173	1/982	2.623	1.0326	1/968
[illegible]	0.9409	1/1062	2.429	0.9562	1/1045	2.468	0.9716	1/1028	2.507	0.9870	1/1013	2.546	[illegible]	1/997	2.585	1.0177	1/982	2.624	[illegible]	1/967
2.391	[illegible]	1/1062	2.430	0.9566	1/1045	2.469	0.9720	1/1028	2.508	0.9873	1/1012	2.547	1.0027	1/997	2.586	1.0181	1/982	2.625	[illegible]	1/967
[illegible]	0.9417	1/1061	2.431	0.9570	1/1044	[illegible]	[illegible]	1/1028	2.509	0.9877	1/1012	[illegible]	[illegible]	1/996	2.587	1.0185	1/981	2.626	1.0338	1/967
[illegible]	0.9421	1/1061	[illegible]	[illegible]	1/1044	2.471	0.9728	1/1027	2.510	0.9881	1/1011	2.549	1.0035	1/996	[illegible]	1.0188	1/981	2.627	1.0342	1/966
[illegible]	0.9425	1/1060	[illegible]	0.9578	1/1043	2.472	0.9732	1/1027	2.511	0.9885	1/1011	2.550	1.0039	1/996	2.589	1.0192	1/980	2.628	1.0346	1/966
2.395	0.9429	1/1060	[illegible]	0.9582	1/1043	2.473	0.9736	1/1026	2.512	0.9889	1/1011	2.551	1.0043	1/995	2.590	1.0196	1/980	2.629	1.0350	1/966
2.396	0.9433	1/1059	[illegible]	0.9586	1/1042	2.474	0.9740	1/1026	2.513	0.9893	1/1010	[illegible]	1.0047	1/995	2.591	1.0200	1/980	2.630	[illegible]	1/965
2.397	0.9436	1/1059	2.436	0.9590	1/1042	2.475	0.9744	1/1026	2.514	[illegible]	1/1010	2.553	1.0051	1/995	[illegible]	1.0204	1/980	2.631	1.0358	1/965
2.398	0.9440	1/1059	2.437	0.9594	1/1042	2.476	[illegible]	1/1025	2.515	0.9901	1/1009	2.554	1.0055	1/994	2.593	[illegible]	1/979	[illegible]	1.0362	1/964
[illegible]	0.9444	1/1059	2.438	0.9598	1/1041	2.477	0.9751	1/1025	2.516	0.9905	1/1009	2.555	[illegible]	1/994	2.594	1.0212	1/979	2.633	[illegible]	1/964
[illegible]	0.9448	1/1058	2.439	0.9602	1/1041	[illegible]	[illegible]	1/1024	2.517	0.9909	1/1008	2.556	1.0062	1/993	2.595	1.0216	1/978	2.634	1.0370	1/964
2.401	0.9452	1/1057	2.440	0.9606	1/1040	2.479	0.9759	1/1024	2.518	0.9913	1/1008	[illegible]	1.0066	1/993	2.596	1.0220	1/978	2.635	[illegible]	[illegible]
2.402	0.9456	1/1057	2.441	0.9610	1/1040	2.480	0.9763	1/1024	2.519	0.9917	1/1008	2.558	1.0070	1/992	[illegible]	1.0224	1/977	2.636	1.0377	[illegible]
2.403	0.9460	1/1056	2.442	0.9614	1/1040	2.481	0.9767	1/1023	2.520	0.9921	1/1007	2.559	1.0074	1/992	2.598	1.0228	1/977	2.637	1.0381	1/963

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
2.638	1.0385	1/962	2.677	1.0539	1/948	2.716	1.0692	1/935	2.755	1.0846	1/921	2.794	1.0999	1/908	2.833	1.1153	1/896	2.872	1.1307	1/884
2.639	1.0389	1/962	2.678	1.0543	1/948	2.717	1.0696	1/934	2.756	1.0850	1/921	2.795	1.1003	1/908	2.834	1.1157	1/896	2.873	1.1311	1/883
2.640	1.0393	1/962	2.675	1.0547	1/947	2.718	1.0700	1/934	2.757	1.0854	1/921	2.796	1.1007	1/908	2.835	1.1161	1/895	2.874	1.1314	1/883
2.641	1.0397	1/961	2.689	1.0551	1/947	2.719	1.0704	1/934	2.758	1.0858	1/920	2.797	1.1011	1/908	2.836	1.1165	1/895	2.875	1.1318	1/883
2.642	1.0401	1/961	2.681	1.0555	1/947	2.720	1.0708	1/933	2.759	1.0862	1/920	2.798	1.1015	1/907	2.837	1.1169	1/895	2.876	1.1322	1/883
2.643	1.0405	1/961	2.682	1.0559	1/946	2.721	1.0712	1/933	2.760	1.0866	1/920	2.799	1.1019	1/907	2.838	1.1173	1/894	2.877	1.1326	1/882
2.644	1.0409	1/960	2.683	1.0562	1/946	2.722	1.0716	1/933	2.761	1.0870	1/919	2.800	1.1023	1/907	2.839	1.1177	1/894	2.878	1.1330	1/882
2.645	1.0413	1/960	2.684	1.0566	1/946	2.723	1.0720	1/932	2.762	1.0873	1/919	2.801	1.1027	1/906	2.840	1.1181	1/894	2.879	1.1334	1/882
2.646	1.0417	1/959	2.685	1.0570	1/945	2.724	1.0724	1/932	2.763	1.0877	1/919	2.802	1.1031	1/906	2.841	1.1185	1/893	2.880	1.1338	1/881
2.647	1.0421	1/959	2.686	1.0574	1/945	2.725	1.0728	1/931	2.764	1.0881	1/918	2.803	1.1035	1/906	2.842	1.1188	1/893	2.881	1.1342	1/881
2.648	1.0425	1/959	2.687	1.0578	1/945	2.726	1.0732	1/931	2.765	1.0885	1/918	2.804	1.1039	1/905	2.843	1.1192	1/893	2.882	1.1346	1/881
2.649	1.0429	1/958	2.688	1.0582	1/944	2.727	1.0736	1/931	2.756	1.0889	1/918	2.805	1.1043	1/905	2.844	1.1196	1/892	2.883	1.1350	1/880
2.650	1.0433	1/958	2.689	1.0586	1/944	2.728	1.0740	1/930	2.767	1.0893	1/917	2.806	1.1047	1/905	2.845	1.1200	1/892	2.884	1.1354	1/880
2.651	1.0436	1/958	2.690	1.0590	1/944	2.729	1.0744	1/930	2.768	1.0897	1/917	2.807	1.1051	1/904	2.846	1.1204	1/892	2.885	1.1358	1/880
2.652	1.0440	1/957	2.691	1.0594	1/943	2.730	1.0748	1/930	2.769	1.0901	1/917	2.808	1.1055	1/904	2.847	1.1208	1/892	2.886	1.1362	1/880
2.653	1.0444	1/957	2.692	1.0598	1/943	2.731	1.0751	1/929	2.770	1.0905	1/916	2.809	1.1059	1/904	2.848	1.1212	1/891	2.887	1.1366	1/879
2.654	1.0448	1/956	2.693	1.0602	1/943	2.732	1.0755	1/929	2.771	1.0909	1/916	2.810	1.1062	1/903	2.849	1.1216	1/891	2.888	1.1370	1/879
2.655	1.0452	1/956	2.694	1.0606	1/942	2.733	1.0759	1/929	2.772	1.0913	1/916	2.811	1.1066	1/903	2.850	1.1220	1/891	2.889	1.1373	1/879
2.656	1.0456	1/956	2.695	1.0610	1/942	2.734	1.0763	1/928	2.773	1.0917	1/915	2.812	1.1070	1/903	2.851	1.1224	1/890	2.890	1.1377	1/878
2.657	1.0460	1/955	2.696	1.0614	1/942	2.735	1.0767	1/928	2.774	1.0921	1/915	2.813	1.1074	1/902	2.852	1.1228	1/890	2.891	1.1381	1/878
2.658	1.0464	1/955	2.697	1.0618	1/941	2.736	1.0771	1/928	2.775	1.0925	1/915	2.814	1.1078	1/902	2.853	1.1232	1/890	2.892	1.1385	1/878
2.659	1.0468	1/955	2.698	1.0622	1/941	2.737	1.0775	1/927	2.776	1.0929	1/914	2.815	1.1082	1/902	2.854	1.1236	1/889	2.893	1.1389	1/877
2.660	1.0472	1/954	2.699	1.0625	1/940	2.738	1.0779	1/927	2.777	1.0933	1/914	2.816	1.1086	1/901	2.855	1.1240	1/889	2.894	1.1393	1/877
2.661	1.0476	1/954	2.700	1.0629	1/940	2.739	1.0783	1/927	2.778	1.0936	1/914	2.817	1.1090	1/901	2.856	1.1244	1/889	2.895	1.1397	1/877
2.662	1.0480	1/954	2.701	1.0633	1/940	2.740	1.0787	1/926	2.779	1.0940	1/913	2.818	1.1094	1/901	2.857	1.1248	1/888	2.896	1.1401	1/876
2.663	1.0484	1/953	2.702	1.0637	1/939	2.741	1.0791	1/926	2.780	1.0944	1/913	2.819	1.1098	1/900	2.858	1.1251	1/888	2.897	1.1405	1/876
2.664	1.0488	1/953	2.703	1.0641	1/939	2.742	1.0795	1/926	2.781	1.0948	1/913	2.820	1.1102	1/900	2.859	1.1255	1/888	2.898	1.1409	1/876
2.665	1.0492	1/953	2.704	1.0645	1/939	2.743	1.0799	1/925	2.782	1.0952	1/912	2.821	1.1106	1/900	2.860	1.1259	1/888	2.899	1.1413	1/876
2.666	1.0496	1/952	2.705	1.0649	1/939	2.744	1.0803	1/925	2.783	1.0956	1/912	2.822	1.1110	1/899	2.861	1.1263	1/887	2.900	1.1417	1/875
2.667	1.0499	1/952	2.706	1.0653	1/938	2.745	1.0807	1/925	2.784	1.0960	1/912	2.823	1.1114	1/899	2.862	1.1267	1/887	2.901	1.1421	1/875
2.668	1.0503	1/951	2.707	1.0657	1/938	2.746	1.0811	1/924	2.785	1.0964	1/911	2.824	1.1118	1/899	2.863	1.1271	1/887	2.902	1.1425	1/875
2.669	1.0507	1/951	2.708	1.0651	1/937	2.747	1.0814	1/924	2.786	1.0968	1/911	2.825	1.1122	1/899	2.864	1.1275	1/886	2.903	1.1429	1/874
2.670	1.0511	1/950	2.709	1.0665	1/937	2.748	1.0818	1/924	2.787	1.0972	1/911	2.826	1.1125	1/898	2.865	1.1279	1/886	2.904	1.1433	1/874
2.671	1.0515	1/950	2.710	1.0669	1/937	2.749	1.0822	1/923	2.788	1.0976	1/910	2.827	1.1129	1/898	2.866	1.1283	1/886	2.905	1.1436	1/874
2.672	1.0519	1/950	2.711	1.0673	1/936	2.750	1.0826	1/923	2.789	1.0980	1/910	2.828	1.1133	1/898	2.867	1.1287	1/885	2.906	1.1440	1/873
2.673	1.0523	1/950	2.712	1.0677	1/936	2.751	1.0830	1/922	2.790	1.0984	1/910	2.829	1.1137	1/897	2.868	1.1291	1/885	2.907	1.1444	1/873
2.674	1.0527	1/949	2.713	1.0681	1/936	2.752	1.0834	1/922	2.791	1.0988	1/909	2.830	1.1141	1/897	2.869	1.1295	1/885	2.908	1.1448	1/872
2.675	1.0531	1/949	2.714	1.0685	1/935	2.753	1.0838	1/922	2.792	1.0992	1/909	2.831	1.1145	1/897	2.870	1.1299	1/884	2.909	1.1452	1/872
2.676	1.0535	1/949	2.715	1.0688	1/935	2.754	1.0842	1/922	2.793	1.0996	1/909	2.832	1.1149	1/896	2.871	1.1303	1/884	2.910	1.1456	1/872

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
2.911	1.1460	1/872	2.950	1.1614	1/860	2.989	1.1767	1/849	3.028	1.1921	1/838	3.067	1.2074	1/828	3.106	1.2228	1/817	3.145	1.2381	1/807
2.912	1.1464	1/872	2.951	1.1618	1/860	2.990	1.1771	1/849	3.029	1.1925	1/838	3.068	1.2078	1/827	3.107	1.2232	1/817	3.146	1.2385	1/807
2.913	1.1468	1/871	2.952	1.1622	1/860	2.991	1.1775	1/849	3.030	1.1929	1/838	3.069	1.2082	1/827	3.108	1.2236	1/817	3.147	1.2389	1/807
2.914	1.1472	1/871	2.953	1.1625	1/860	2.992	1.1779	1/848	3.031	1.1933	1/837	3.070	1.2086	1/827	3.109	1.2240	1/816	3.148	1.2393	1/806
2.915	1.1476	1/871	2.954	1.1629	1/860	2.993	1.1783	1/848	3.032	1.1936	1/837	3.071	1.2090	1/826	3.110	1.2244	1/816	3.149	1.2397	1/806
2.916	1.1480	1/870	2.955	1.1633	1/859	2.994	1.1787	1/848	3.033	1.1940	1/837	3.072	1.2094	1/826	3.111	1.2248	1/816	3.150	1.2401	1/806
2.917	1.1484	1/870	2.956	1.1637	1/859	2.995	1.1791	1/848	3.034	1.1944	1/836	3.073	1.2098	1/826	3.112	1.2251	1/815	3.151	1.2405	1/805
2.918	1.1488	1/870	2.957	1.1641	1/859	2.996	1.1795	1/847	3.035	1.1948	1/836	3.074	1.2102	1/826	3.113	1.2255	1/815	3.152	1.2409	1/805
2.919	1.1492	1/869	2.958	1.1645	1/859	2.997	1.1799	1/847	3.036	1.1952	1/836	3.075	1.2106	1/825	3.114	1.2259	1/815	3.153	1.2413	1/805
2.920	1.1496	1/869	2.959	1.1649	1/858	2.998	1.1803	1/847	3.037	1.1956	1/836	3.076	1.2110	1/825	3.115	1.2263	1/815	3.154	1.2417	1/805
2.921	1.1499	1/869	2.960	1.1653	1/858	2.999	1.1807	1/846	3.038	1.1960	1/835	3.077	1.2114	1/825	3.116	1.2267	1/815	3.155	1.2421	1/804
2.922	1.1503	1/868	2.961	1.1657	1/858	3.000	1.1811	1/846	3.039	1.1964	1/835	3.078	1.2118	1/825	3.117	1.2271	1/814	3.156	1.2425	1/804
2.923	1.1507	1/868	2.962	1.1661	1/857	3.001	1.1814	1/846	3.040	1.1968	1/835	3.079	1.2122	1/824	3.118	1.2275	1/814	3.157	1.2429	1/804
2.924	1.1511	1/868	2.963	1.1665	1/857	3.002	1.1818	1/845	3.041	1.1972	1/835	3.080	1.2125	1/824	3.119	1.2279	1/814	3.158	1.2433	1/804
2.925	1.1515	1/868	2.964	1.1669	1/856	3.003	1.1822	1/845	3.042	1.1976	1/834	3.081	1.2129	1/824	3.120	1.2283	1/814	3.159	1.2436	1/803
2.926	1.1519	1/867	2.965	1.1673	1/856	3.004	1.1826	1/845	3.043	1.1980	1/834	3.082	1.2133	1/824	3.121	1.2287	1/813	3.160	1.2440	1/803
2.927	1.1523	1/867	2.966	1.1677	1/856	3.005	1.1830	1/845	3.044	1.1984	1/834	3.083	1.2137	1/823	3.122	1.2291	1/813	3.161	1.2444	1/803
2.928	1.1527	1/867	2.967	1.1681	1/855	3.006	1.1834	1/844	3.045	1.1988	1/834	3.084	1.2141	1/823	3.123	1.2295	1/813	3.162	1.2448	1/803
2.929	1.1531	1/867	2.968	1.1685	1/855	3.007	1.1838	1/844	3.046	1.1992	1/833	3.085	1.2145	1/823	3.124	1.2299	1/812	3.163	1.2452	1/802
2.930	1.1535	1/866	2.969	1.1688	1/855	3.008	1.1842	1/844	3.047	1.1996	1/833	3.086	1.2149	1/823	3.125	1.2303	1/812	3.164	1.2456	1/802
2.931	1.1539	1/866	2.970	1.1692	1/855	3.009	1.1846	1/843	3.048	1.1999	1/833	3.087	1.2153	1/822	3.126	1.2307	1/812	3.165	1.2460	1/802
2.932	1.1543	1/866	2.971	1.1696	1/854	3.010	1.1850	1/843	3.049	1.2003	1/832	3.088	1.2157	1/822	3.127	1.2310	1/812	3.166	1.2464	1/802
2.933	1.1547	1/865	2.972	1.1700	1/854	3.011	1.1854	1/843	3.050	1.2007	1/832	3.089	1.2161	1/822	3.128	1.2314	1/811	3.167	1.2468	1/801
2.934	1.1551	1/865	2.973	1.1704	1/854	3.012	1.1858	1/843	3.051	1.2011	1/832	3.090	1.2165	1/821	3.129	1.2318	1/811	3.168	1.2472	1/801
2.935	1.1555	1/865	2.974	1.1708	1/853	3.013	1.1862	1/842	3.052	1.2015	1/831	3.091	1.2169	1/821	3.130	1.2322	1/811	3.169	1.2476	1/801
2.936	1.1559	1/865	2.975	1.1712	1/853	3.014	1.1866	1/842	3.053	1.2019	1/831	3.092	1.2173	1/821	3.131	1.2326	1/811	3.170	1.2480	1/801
2.937	1.1562	1/864	2.976	1.1716	1/853	3.015	1.1870	1/842	3.054	1.2023	1/831	3.093	1.2177	1/821	3.132	1.2330	1/810	3.171	1.2484	1/800
2.938	1.1566	1/864	2.977	1.1720	1/853	3.016	1.1874	1/842	3.055	1.2027	1/831	3.094	1.2181	1/820	3.133	1.2334	1/810	3.172	1.2488	1/800
2.939	1.1570	1/864	2.978	1.1724	1/852	3.017	1.1877	1/841	3.056	1.2031	1/830	3.095	1.2185	1/820	3.134	1.2338	1/810	3.173	1.2492	1/800
2.940	1.1574	1/863	2.979	1.1728	1/852	3.018	1.1881	1/841	3.057	1.2035	1/830	3.096	1.2188	1/820	3.135	1.2342	1/810	3.174	1.2496	1/800
2.941	1.1578	1/863	2.980	1.1732	1/852	3.019	1.1885	1/841	3.058	1.2039	1/830	3.097	1.2192	1/820	3.136	1.2346	1/809	3.175	1.2499	1/799
2.942	1.1582	1/863	2.981	1.1736	1/851	3.020	1.1889	1/840	3.059	1.2043	1/830	3.098	1.2196	1/819	3.137	1.2350	1/809	3.176	1.2503	1/799
2.943	1.1586	1/862	2.982	1.1740	1/851	3.021	1.1893	1/840	3.060	1.2047	1/829	3.099	1.2200	1/819	3.138	1.2354	1/809	3.177	1.2507	1/799
2.944	1.1590	1/862	2.983	1.1744	1/851	3.022	1.1897	1/840	3.061	1.2051	1/829	3.100	1.2204	1/819	3.139	1.2358	1/809	3.178	1.2511	1/799
2.945	1.1594	1/862	2.984	1.1748	1/851	3.023	1.1901	1/840	3.062	1.2055	1/829	3.101	1.2208	1/818	3.140	1.2362	1/808	3.179	1.2515	1/798
2.946	1.1598	1/862	2.985	1.1751	1/850	3.024	1.1905	1/839	3.063	1.2059	1/829	3.102	1.2212	1/818	3.141	1.2366	1/808	3.180	1.2519	1/798
2.947	1.1602	1/861	2.986	1.1755	1/850	3.025	1.1909	1/839	3.064	1.2062	1/828	3.103	1.2216	1/818	3.142	1.2370	1/808	3.181	1.2523	1/798
2.948	1.1606	1/861	2.987	1.1759	1/850	3.026	1.1913	1/839	3.065	1.2066	1/828	3.104	1.2220	1/818	3.143	1.2373	1/807	3.182	1.2527	1/798
2.949	1.1610	1/861	2.988	1.1763	1/849	3.027	1.1917	1/839	3.066	1.2070	1/828	3.105	1.2224	1/817	3.144	1.2377	1/807	3.183	1.2531	1/797

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
3.184	1.2535	1/797	3.223	1.2688	1/787	3.262	1.2842	1/778	3.301	1.2996	1/769	3.340	1.3149	1/760	3.379	1.3303	1/751	3.418	1.3456	1/743
3.185	1.2539	1/797	3.224	1.2692	1/787	3.263	1.2846	1/778	3.302	1.2999	1/769	3.341	1.3153	1/760	3.380	1.3307	1/751	3.419	1.3460	1/742
3.186	1.2543	1/796	3.225	1.2696	1/787	3.264	1.2850	1/778	3.303	1.3003	1/768	3.342	1.3157	1/759	3.381	1.3310	1/751	3.420	1.3464	1/742
3.187	1.2547	1/796	3.226	1.2700	1/787	3.265	1.2854	1/777	3.304	1.3007	1/768	3.343	1.3161	1/759	3.382	1.3314	1/750	3.421	1.3468	1/742
3.188	1.2551	1/796	3.227	1.2704	1/787	3.266	1.2858	1/777	3.305	1.3011	1/768	3.344	1.3165	1/759	3.383	1.3318	1/750	3.422	1.3472	1/742
3.189	1.2555	1/796	3.228	1.2708	1/786	3.267	1.2862	1/777	3.306	1.3015	1/768	3.345	1.3169	1/759	3.384	1.3322	1/750	3.423	1.3476	1/741
3.190	1.2559	1/796	3.229	1.2712	1/786	3.268	1.2866	1/777	3.307	1.3019	1/767	3.346	1.3173	1/759	3.385	1.3326	1/750	3.424	1.3480	1/741
3.191	1.2562	1/795	3.230	1.2716	1/786	3.269	1.2870	1/776	3.308	1.3023	1/767	3.347	1.3177	1/758	3.386	1.3330	1/750	3.425	1.3484	1/741
3.192	1.2566	1/795	3.231	1.2720	1/786	3.270	1.2873	1/776	3.309	1.3027	1/767	3.348	1.3181	1/758	3.387	1.3334	1/749	3.426	1.3488	1/741
3.193	1.2570	1/795	3.232	1.2724	1/785	3.271	1.2877	1/776	3.310	1.3031	1/767	3.349	1.3185	1/758	3.388	1.3338	1/749	3.427	1.3492	1/741
3.194	1.2574	1/795	3.233	1.2728	1/785	3.272	1.2881	1/776	3.311	1.3035	1/767	3.350	1.3188	1/758	3.389	1.3342	1/749	3.428	1.3496	1/740
3.195	1.2578	1/794	3.234	1.2732	1/785	3.273	1.2885	1/775	3.312	1.3039	1/766	3.351	1.3192	1/757	3.390	1.3346	1/749	3.429	1.3499	1/740
3.196	1.2582	1/794	3.235	1.2736	1/785	3.274	1.2889	1/775	3.313	1.3043	1/766	3.352	1.3196	1/757	3.391	1.3350	1/748	3.430	1.3503	1/740
3.197	1.2586	1/794	3.236	1.2740	1/784	3.275	1.2893	1/775	3.314	1.3047	1/766	3.353	1.3200	1/757	3.392	1.3354	1/748	3.431	1.3507	1/740
3.198	1.2590	1/794	3.237	1.2744	1/784	3.276	1.2897	1/775	3.315	1.3051	1/766	3.354	1.3204	1/757	3.393	1.3358	1/748	3.432	1.3511	1/740
3.199	1.2594	1/793	3.238	1.2748	1/784	3.277	1.2901	1/775	3.316	1.3055	1/765	3.355	1.3208	1/756	3.394	1.3362	1/748	3.433	1.3515	1/739
3.200	1.2598	1/793	3.239	1.2751	1/784	3.278	1.2905	1/774	3.317	1.3059	1/765	3.356	1.3212	1/756	3.395	1.3366	1/747	3.434	1.3519	1/739
3.201	1.2602	1/793	3.240	1.2755	1/783	3.279	1.2909	1/774	3.318	1.3062	1/765	3.357	1.3216	1/756	3.396	1.3370	1/747	3.435	1.3523	1/739
3.202	1.2606	1/793	3.241	1.2759	1/783	3.280	1.2913	1/774	3.319	1.3066	1/765	3.358	1.3220	1/756	3.397	1.3373	1/747	3.436	1.3527	1/739
3.203	1.2610	1/792	3.242	1.2763	1/783	3.281	1.2917	1/774	3.320	1.3070	1/764	3.359	1.3224	1/756	3.398	1.3377	1/747	3.437	1.3531	1/738
3.204	1.2614	1/792	3.243	1.2767	1/783	3.282	1.2921	1/773	3.321	1.3074	1/764	3.360	1.3228	1/755	3.399	1.3381	1/747	3.438	1.3535	1/738
3.205	1.2618	1/792	3.244	1.2771	1/782	3.283	1.2925	1/773	3.322	1.3078	1/764	3.361	1.3232	1/755	3.400	1.3385	1/746	3.439	1.3539	1/738
3.206	1.2622	1/792	3.245	1.2775	1/782	3.284	1.2929	1/773	3.323	1.3082	1/764	3.362	1.3236	1/755	3.401	1.3389	1/746	3.440	1.3543	1/738
3.207	1.2625	1/791	3.246	1.2779	1/782	3.285	1.2933	1/773	3.324	1.3086	1/764	3.363	1.3240	1/755	3.402	1.3393	1/746	3.441	1.3547	1/738
3.208	1.2629	1/791	3.247	1.2783	1/782	3.286	1.2936	1/772	3.325	1.3090	1/763	3.364	1.3244	1/754	3.403	1.3397	1/746	3.442	1.3551	1/737
3.209	1.2633	1/791	3.248	1.2787	1/781	3.287	1.2940	1/772	3.326	1.3094	1/763	3.365	1.3248	1/754	3.404	1.3401	1/746	3.443	1.3555	1/737
3.210	1.2637	1/791	3.249	1.2791	1/781	3.288	1.2944	1/772	3.327	1.3098	1/763	3.366	1.3251	1/754	3.405	1.3405	1/745	3.444	1.3559	1/737
3.211	1.2641	1/790	3.250	1.2795	1/781	3.289	1.2948	1/772	3.328	1.3102	1/763	3.367	1.3255	1/754	3.406	1.3409	1/745	3.445	1.3562	1/737
3.212	1.2645	1/790	3.251	1.2799	1/781	3.290	1.2952	1/771	3.329	1.3106	1/762	3.368	1.3259	1/754	3.407	1.3413	1/745	3.446	1.3566	1/736
3.213	1.2649	1/790	3.252	1.2803	1/780	3.291	1.2956	1/771	3.330	1.3110	1/762	3.369	1.3263	1/753	3.408	1.3417	1/745	3.447	1.3570	1/736
3.214	1.2653	1/790	3.253	1.2807	1/780	3.292	1.2960	1/771	3.331	1.3114	1/762	3.370	1.3267	1/753	3.409	1.3421	1/744	3.448	1.3574	1/736
3.215	1.2657	1/789	3.254	1.2810	1/780	3.293	1.2964	1/771	3.332	1.3118	1/762	3.371	1.3271	1/753	3.410	1.3425	1/744	3.449	1.3578	1/736
3.216	1.2661	1/789	3.255	1.2814	1/780	3.294	1.2968	1/771	3.333	1.3122	1/761	3.372	1.3275	1/753	3.411	1.3429	1/744	3.450	1.3582	1/736
3.217	1.2665	1/789	3.256	1.2818	1/779	3.295	1.2972	1/770	3.334	1.3125	1/761	3.373	1.3279	1/752	3.412	1.3433	1/744	3.451	1.3586	1/735
3.218	1.2669	1/789	3.257	1.2822	1/779	3.296	1.2976	1/770	3.335	1.3129	1/761	3.374	1.3283	1/752	3.413	1.3436	1/744	3.452	1.3590	1/735
3.219	1.2673	1/788	3.258	1.2826	1/779	3.297	1.2980	1/769	3.336	1.3133	1/761	3.375	1.3287	1/752	3.414	1.3440	1/743	3.453	1.3594	1/735
3.220	1.2677	1/788	3.259	1.2830	1/779	3.298	1.2984	1/769	3.337	1.3137	1/761	3.376	1.3291	1/752	3.415	1.3444	1/743	3.454	1.3598	1/735
3.221	1.2681	1/788	3.260	1.2834	1/779	3.299	1.2988	1/769	3.338	1.3141	1/760	3.377	1.3295	1/752	3.416	1.3448	1/743	3.455	1.3602	1/735
3.222	1.2685	1/788	3.261	1.2838	1/778	3.300	1.2992	1/769	3.339	1.3145	1/760	3.378	1.3299	1/751	3.417	1.3452	1/743	3.456	1.3606	1/734

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
3.457	1.3610	1/734	3.496	1.3763	1/726	3.535	1.3917	1/718	3.574	1.4070	1/710	3.613	1.4224	1/702	3.652	1.4377	1/695	3.691	1.4531	1/688
3.458	1.3614	1/734	3.497	1.3767	1/726	3.536	1.3921	1/718	3.575	1.4074	1/710	3.614	1.4228	1/702	3.653	1.4381	1/695	3.692	1.4535	1/687
3.459	1.3618	1/734	3.498	1.3771	1/726	3.537	1.3925	1/718	3.576	1.4078	1/710	3.615	1.4232	1/702	3.654	1.4385	1/695	3.693	1.4539	1/687
3.460	1.3622	1/734	3.499	1.3775	1/725	3.538	1.3929	1/717	3.577	1.4082	1/710	3.616	1.4236	1/702	3.655	1.4389	1/694	3.694	1.4543	1/687
3.461	1.3625	1/733	3.500	1.3779	1/725	3.539	1.3933	1/717	3.578	1.4086	1/709	3.617	1.4240	1/702	3.656	1.4393	1/694	3.695	1.4547	1/687
3.462	1.3629	1/733	3.501	1.3783	1/725	3.540	1.3937	1/717	3.579	1.4090	1/709	3.618	1.4244	1/701	3.657	1.4397	1/694	3.696	1.4551	1/687
3.463	1.3633	1/733	3.502	1.3787	1/725	3.541	1.3940	1/717	3.580	1.4094	1/709	3.619	1.4248	1/701	3.658	1.4401	1/694	3.697	1.4555	1/686
3.464	1.3637	1/733	3.503	1.3791	1/725	3.542	1.3944	1/717	3.581	1.4098	1/709	3.620	1.4251	1/701	3.659	1.4405	1/694	3.698	1.4559	1/686
3.465	1.3641	1/732	3.504	1.3795	1/724	3.543	1.3948	1/716	3.582	1.4102	1/709	3.621	1.4255	1/701	3.660	1.4409	1/693	3.699	1.4562	1/686
3.466	1.3645	1/732	3.505	1.3799	1/724	3.544	1.3952	1/716	3.583	1.4106	1/708	3.622	1.4259	1/701	3.661	1.4413	1/693	3.700	1.4566	1/686
3.467	1.3649	1/732	3.506	1.3803	1/724	3.545	1.3956	1/716	3.584	1.4110	1/708	3.623	1.4263	1/700	3.662	1.4417	1/693	3.701	1.4570	1/686
3.468	1.3653	1/732	3.507	1.3807	1/724	3.546	1.3960	1/716	3.585	1.4114	1/708	3.624	1.4267	1/700	3.663	1.4421	1/693	3.702	1.4574	1/686
3.469	1.3657	1/732	3.508	1.3810	1/723	3.547	1.3964	1/716	3.586	1.4118	1/708	3.625	1.4271	1/700	3.664	1.4425	1/693	3.703	1.4578	1/685
3.470	1.3661	1/731	3.509	1.3814	1/723	3.548	1.3968	1/715	3.587	1.4122	1/708	3.626	1.4275	1/700	3.665	1.4429	1/692	3.704	1.4582	1/685
3.471	1.3665	1/731	3.510	1.3818	1/723	3.549	1.3972	1/715	3.588	1.4125	1/707	3.627	1.4279	1/700	3.666	1.4433	1/692	3.705	1.4586	1/685
3.472	1.3669	1/731	3.511	1.3822	1/723	3.550	1.3976	1/715	3.589	1.4129	1/707	3.628	1.4283	1/700	3.667	1.4437	1/692	3.706	1.4590	1/685
3.473	1.3673	1/731	3.512	1.3826	1/723	3.551	1.3980	1/715	3.590	1.4133	1/707	3.629	1.4287	1/699	3.668	1.4440	1/692	3.707	1.4594	1/685
3.474	1.3677	1/731	3.513	1.3830	1/722	3.552	1.3984	1/715	3.591	1.4137	1/707	3.630	1.4291	1/699	3.669	1.4444	1/691	3.708	1.4598	1/684
3.475	1.3681	1/730	3.514	1.3834	1/722	3.553	1.3988	1/714	3.592	1.4141	1/707	3.631	1.4295	1/699	3.670	1.4448	1/691	3.709	1.4602	2/684
3.476	1.3685	1/730	3.515	1.3838	1/722	3.554	1.3992	1/714	3.593	1.4145	1/706	3.632	1.4299	1/699	3.671	1.4453	1/691	3.710	1.4606	1/684
3.477	1.3688	1/730	3.516	1.3842	1/722	3.555	1.3996	1/714	3.594	1.4149	1/706	3.633	1.4303	1/699	3.672	1.4456	1/691	3.711	1.4610	1/684
3.478	1.3692	1/730	3.517	1.3846	1/722	3.556	1.4000	1/714	3.595	1.4153	1/706	3.634	1.4307	1/698	3.673	1.4460	1/691	3.712	1.4614	1/684
3.479	1.3696	1/730	3.518	1.3850	1/721	3.557	1.4003	1/713	3.596	1.4157	1/706	3.635	1.4310	1/698	3.674	1.4464	1/691	3.713	1.4618	1/683
3.480	1.3700	1/729	3.519	1.3854	1/721	3.558	1.4007	1/713	3.597	1.4161	1/706	3.636	1.4314	1/698	3.675	1.4468	1/691	3.714	1.4622	1/683
3.481	1.3704	1/729	3.520	1.3858	1/721	3.559	1.4011	1/713	3.598	1.4165	1/705	3.637	1.4318	1/698	3.676	1.4472	1/691	3.715	1.4626	1/683
3.482	1.3708	1/729	3.521	1.3862	1/721	3.560	1.4015	1/713	3.599	1.4169	1/705	3.638	1.4322	1/698	3.677	1.4476	1/690	3.716	1.4629	1/683
3.483	1.3712	1/729	3.522	1.3866	1/721	3.561	1.4019	1/713	3.600	1.4173	1/705	3.639	1.4326	1/697	3.678	1.4480	1/690	3.717	1.4633	1/683
3.484	1.3716	1/728	3.523	1.3870	1/720	3.562	1.4023	1/712	3.601	1.4177	1/705	3.640	1.4330	1/697	3.679	1.4484	1/690	3.718	1.4637	1/682
3.485	1.3720	1/728	3.524	1.3873	1/720	3.563	1.4027	1/712	3.602	1.4181	1/705	3.641	1.4334	1/697	3.680	1.4488	1/690	3.719	1.4641	1/682
3.486	1.3724	1/728	3.525	1.3877	1/720	3.564	1.4031	1/712	3.603	1.4185	1/704	3.642	1.4338	1/697	3.681	1.4492	1/690	3.720	1.4645	1/682
3.487	1.3728	1/728	3.526	1.3881	1/720	3.565	1.4035	1/712	3.604	1.4188	1/704	3.643	1.4342	1/697	3.682	1.4496	1/689	3.721	1.4649	1/682
3.488	1.3732	1/728	3.527	1.3885	1/720	3.566	1.4039	1/712	3.605	1.4192	1/704	3.644	1.4346	1/697	3.683	1.4499	1/689	3.722	1.4653	1/682
3.489	1.3736	1/727	3.528	1.3889	1/719	3.567	1.4043	1/711	3.606	1.4196	1/704	3.645	1.4350	1/696	3.684	1.4503	1/689	3.723	1.4657	1/682
3.490	1.3740	1/727	3.529	1.3893	1/719	3.568	1.4047	1/711	3.607	1.4200	1/704	3.646	1.4354	1/696	3.685	1.4507	1/689	3.724	1.4661	1/681
3.491	1.3744	1/727	3.530	1.3897	1/719	3.569	1.4051	1/711	3.608	1.4204	1/703	3.647	1.4358	1/696	3.686	1.4511	1/689	3.725	1.4665	1/681
3.492	1.3748	1/727	3.531	1.3901	1/719	3.570	1.4055	1/711	3.609	1.4208	1/703	3.648	1.4362	1/696	3.687	1.4515	1/688	3.726	1.4669	1/681
3.493	1.3751	1/727	3.532	1.3905	1/719	3.571	1.4059	1/711	3.610	1.4212	1/703	3.649	1.4366	1/696	3.688	1.4519	1/688	3.727	1.4673	1/681
3.494	1.3755	1/726	3.533	1.3909	1/718	3.572	1.4062	1/710	3.611	1.4216	1/703	3.650	1.4370	1/695	3.689	1.4523	1/688	3.728	1.4677	1/681
3.495	1.3759	1/726	3.534	1.3913	1/718	3.573	1.4066	1/710	3.612	1.4220	1/703	3.651	1.4373	1/695	3.690	1.4527	1/688	3.729	1.4681	1/681

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
3.730	1.4685	1/680	3.769	1.4838	1/673	3.808	1.4992	1/666	3.847	1.5145	1/660	3.886	1.5299	1/653	3.925	1.5452	1/647	3.964	1.5606	1/640
3.731	1.4688	1/680	3.770	1.4842	1/673	3.809	1.4996	1/666	3.848	1.5149	1/660	3.887	1.5303	1/653	3.926	1.5456	1/646	3.965	1.5610	1/640
3.732	1.4692	1/680	3.771	1.4846	1/673	3.810	1.4999	1/666	3.849	1.5153	1/659	3.888	1.5307	1/653	3.927	1.5460	1/646	3.966	1.5614	1/640
3.733	1.4696	1/680	3.772	1.4850	1/673	3.811	1.5003	1/666	3.850	1.5157	1/659	3.889	1.5310	1/653	3.928	1.5464	1/646	3.967	1.5618	1/640
3.734	1.4700	1/680	3.773	1.4854	1/673	3.812	1.5007	1/666	3.851	1.5161	1/659	3.890	1.5314	1/652	3.929	1.5468	1/646	3.968	1.5622	1/640
3.735	1.4704	1/679	3.774	1.4858	1/672	3.813	1.5011	1/665	3.852	1.5165	1/659	3.891	1.5318	1/652	3.930	1.5472	1/646	3.969	1.5625	1/640
3.736	1.4708	1/679	3.775	1.4862	1/672	3.814	1.5015	1/665	3.853	1.5169	1/659	3.892	1.5322	1/652	3.931	1.5476	1/646	3.970	1.5629	1/639
3.737	1.4712	1/679	3.776	1.4866	1/672	3.815	1.5019	1/665	3.854	1.5173	1/659	3.893	1.5326	1/652	3.932	1.5480	1/645	3.971	1.5633	1/639
3.738	1.4716	1/679	3.777	1.4870	1/672	3.816	1.5023	1/665	3.855	1.5177	1/658	3.894	1.5330	1/652	3.933	1.5484	1/645	3.972	1.5637	1/639
3.739	1.4720	1/679	3.778	1.4873	1/671	3.817	1.5027	1/665	3.856	1.5181	1/658	3.895	1.5334	1/651	3.934	1.5488	1/645	3.973	1.5641	1/639
3.740	1.4724	1/679	3.779	1.4877	1/672	3.818	1.5031	1/665	3.857	1.5185	1/658	3.896	1.5338	1/651	3.935	1.5492	1/645	3.974	1.5645	1/639
3.741	1.4728	1/678	3.780	1.4881	1/671	3.819	1.5035	1/665	3.858	1.5188	1/658	3.897	1.5342	1/651	3.936	1.5496	1/645	3.975	1.5649	1/638
3.742	1.4732	1/678	3.781	1.4885	1/671	3.820	1.5039	1/664	3.859	1.5192	1/658	3.898	1.5346	1/651	3.937	1.5499	1/645	3.976	1.5653	1/638
3.743	1.4736	1/678	3.782	1.4889	1/671	3.821	1.5043	1/664	3.860	1.5196	1/658	3.899	1.5350	1/651	3.938	1.5503	1/644	3.977	1.5657	1/638
3.744	1.4740	1/678	3.783	1.4893	1/671	3.822	1.5047	1/664	3.861	1.5200	1/657	3.900	1.5354	1/651	3.939	1.5507	1/644	3.978	1.5661	1/638
3.745	1.4744	1/678	3.784	1.4897	1/671	3.823	1.5051	1/664	3.862	1.5204	1/657	3.901	1.5358	1/651	3.940	1.5511	1/644	3.979	1.5665	1/638
3.746	1.4748	1/678	3.785	1.4901	1/670	3.824	1.5055	1/664	3.863	1.5208	1/657	3.902	1.5362	1/650	3.941	1.5515	1/644	3.980	1.5669	1/638
3.747	1.4751	1/677	3.786	1.4905	1/670	3.825	1.5059	1/663	3.864	1.5212	1/657	3.903	1.5366	1/650	3.942	1.5519	1/644	3.981	1.5673	1/637
3.748	1.4755	1/677	3.787	1.4909	1/670	3.826	1.5062	1/663	3.865	1.0216	1/657	3.904	1.5370	1/650	3.943	1.5523	1/644	3.982	1.5677	1/637
3.749	1.4759	1/677	3.788	1.4913	1/670	3.827	1.5066	1/663	3.866	1.5220	1/656	3.905	1.5373	1/650	3.944	1.5527	1/643	3.983	1.5681	1/637
3.750	1.4763	1/677	3.789	1.4917	1/670	3.828	1.5070	1/663	3.867	1.5224	1/656	3.906	1.5377	1/650	3.945	1.5531	1/643	3.984	1.5685	1/637
3.751	1.4767	1/677	3.790	1.4921	1/669	3.829	1.5074	1/663	3.868	1.5228	1/656	3.907	1.5381	1/650	3.946	1.5535	1/643	3.985	1.5689	1/637
3.752	1.4771	1/676	3.791	1.4925	1/669	3.830	1.5078	1/663	3.869	1.5232	1/656	3.908	1.5385	1/649	3.947	1.5539	1/643	3.986	1.5692	1/637
3.753	1.4775	1/676	3.792	1.4929	1/669	3.831	1.5082	1/662	3.870	1.5236	1/656	3.909	1.5389	1/649	3.948	1.5543	1/643	3.987	1.5696	1/636
3.754	1.4779	1/676	3.793	1.4933	1/669	3.832	1.5086	1/662	3.871	1.5240	1/656	3.910	1.5393	1/649	3.949	1.5547	1/643	3.988	1.5700	1/636
3.755	1.4783	1/676	3.794	1.4936	1/669	3.833	1.5090	1/662	3.872	1.5244	1/655	3.911	1.5397	1/649	3.950	1.5551	1/643	3.989	1.5704	1/636
3.756	1.4787	1/676	3.795	1.4940	1/669	3.834	1.5094	1/662	3.873	1.5248	1/655	3.912	1.5401	1/649	3.951	1.5555	1/642	3.990	1.5708	1/636
3.757	1.4791	1/675	3.796	1.4944	1/669	3.835	1.5098	1/662	3.874	1.5251	1/655	3.913	1.5405	1/649	3.952	1.5559	1/642	3.991	1.5712	1/636
3.758	1.4795	1/675	3.797	1.4948	1/668	3.836	1.5102	1/662	3.875	1.5255	1/654	3.914	1.5409	1/648	3.953	1.5562	1/642	3.992	1.5716	1/636
3.759	1.4799	1/675	3.798	1.4952	1/668	3.837	1.5106	1/661	3.876	1.5259	1/655	3.915	1.5413	1/648	3.954	1.5566	1/642	3.993	1.5720	1/635
3.760	1.4803	1/675	3.799	1.4956	1/668	3.838	1.5110	1/661	3.877	1.5263	1/655	3.916	1.5417	1/648	3.955	1.5570	1/642	3.994	1.5724	1/635
3.761	1.4807	1/675	3.800	1.4960	1/668	3.839	1.5114	1/661	3.878	1.5267	1/655	3.917	1.5421	1/648	3.956	1.5574	1/641	3.995	1.5728	1/635
3.762	1.4810	1/675	3.801	1.4964	1/668	3.840	1.5118	1/661	3.879	1.5271	1/654	3.918	1.5425	1/648	3.957	1.5578	1/641	3.996	1.5732	1/635
3.763	1.4814	1/674	3.802	1.4968	1/667	3.841	1.5122	1/661	3.880	1.5275	1/654	3.919	1.5429	1/648	3.958	1.5582	1/641	3.997	1.5736	1/635
3.764	1.4818	1/674	3.803	1.4972	1/667	3.842	1.5125	1/661	3.881	1.5279	1/654	3.920	1.5433	1/647	3.959	1.5586	1/641	3.998	1.5740	1/635
3.765	1.4822	1/674	3.804	1.4976	1/667	3.843	1.5129	1/660	3.882	1.5283	1/654	3.921	1.5436	1/647	3.960	1.5590	1/641	3.999	1.5744	1/635
3.766	1.4826	1/674	3.805	1.4980	1/667	3.844	1.5133	1/660	3.883	1.5287	1/654	3.922	1.5440	1/647	3.961	1.5594	1/641	4.000	1.5748	1/634
3.767	1.4830	1/674	3.806	1.4984	1/667	3.845	1.5137	1/660	3.884	1.5291	1/653	3.923	1.5444	1/647	3.962	1.5598	1/640	4.001	1.5751	1/634
3.768	1.4834	1/674	3.807	1.4988	1/667	3.846	1.5141	1/660	3.885	1.5295	1/653	3.424	1.5448	1/647	3.963	1.5602	1/640	4.002	1.5755	1/634

I.— *Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
4.041	1.5909	1/628	4.080	1.6063	1/622	4.119	1.6218	1/616	4.158	1.6370	1/610	4.197	1.6523	1/605	4.236	1.6677	1/599	4.275	1.6830	1/594
4.040	1.5906	1/628	4.079	1.6059	1/622	4.118	1.6212	1/616	4.157	1.6366	1/610	4.196	1.6519	1/605	4.235	1.6673	1/599	4.274	1.6826	1/594
4.039	1.5901	1/628	4.078	1.6065	1/622	4.117	1.6208	1/616	4.156	1.6362	1/611	4.195	1.6515	1/605	4.234	1.6669	1/599	4.273	1.6823	1/594
4.038	1.5897	1/628	4.077	1.6061	1/622	4.116	1.6204	1/617	4.155	1.6358	1/611	4.194	1.6511	1/605	4.233	1.6665	1/599	4.272	1.6819	1/594
4.037	1.5898	1/629	4.076	1.6047	1/623	4.115	1.6200	1/617	4.154	1.6354	1/611	4.193	1.6507	1/605	4.232	1.6661	1/600	4.271	1.6814	1/594
4.036	1.5894	1/629	4.075	1.6043	1/623	4.114	1.6196	1/617	4.153	1.6350	1/611	4.192	1.6503	1/605	4.231	1.6657	1/600	4.270	1.6810	1/594
4.035	1.5885	1/629	4.074	1.6039	1/623	4.113	1.6192	1/617	4.152	1.6346	1/611	4.191	1.6499	1/605	4.230	1.6653	1/600	4.269	1.6807	1/594
4.034	1.5881	1/629	4.073	1.6035	1/623	4.112	1.6188	1/617	4.151	1.6342	1/611	4.190	1.6496	1/606	4.229	1.6649	1/600	4.268	1.6803	1/595
4.033	1.5877	1/629	4.072	1.6031	1/623	4.111	1.6185	1/617	4.150	1.6338	1/611	4.189	1.6492	1/606	4.228	1.6645	1/600	4.267	1.6799	1/595
4.032	1.5873	1/629	4.071	1.6027	1/623	4.110	1.6181	1/617	4.149	1.6334	1/612	4.188	1.6488	1/606	4.227	1.6641	1/600	4.266	1.6795	1/595
4.031	1.5870	1/630	4.070	1.6023	1/624	4.109	1.6177	1/618	4.148	1.6330	1/612	4.187	1.6484	1/606	4.226	1.6637	1/600	4.265	1.6791	1/595
4.030	1.5866	1/630	4.069	1.6019	1/624	4.108	1.6173	1/618	4.147	1.6326	1/612	4.186	1.6480	1/606	4.225	1.6633	1/601	5.264	1.6787	1/595
4.029	1.5862	1/630	4.068	1.6015	1/624	4.107	1.6169	1/619	4.146	1.6322	1/612	4.185	1.6476	1/606	4.224	1.6629	1/601	4.263	1.6783	1/595
4.028	1.5858	1/630	4.067	1.6011	1/624	4.106	1.6165	1/618	4.145	1.6318	1/612	4.184	1.6472	1/606	4.223	1.6626	1/601	4.262	1.6779	1/595
4.027	1.5854	1/630	4.066	1.6007	1/624	4.105	1.6161	1/618	4.144	1.6314	1/612	4.183	1.6468	1/607	4.222	1.6622	1/601	4.261	1.6775	1/595
4.026	1.5850	1/630	4.065	1.6003	1/624	4.104	1.6157	1/618	4.143	1.6310	1/613	4.182	1.6464	1/607	4.221	1.6618	1/601	4.260	1.6771	1/595
4.025	1.5846	1/630	4.064	1.5999	1/624	4.103	1.6153	1/618	4.142	1.6307	1/613	4.181	1.6460	1/607	4.220	1.6614	1/601	4.259	1.6767	1/595
4.024	1.5842	1/631	4.063	1.5996	1/625	4.102	1.6149	1/619	4.141	1.6303	1/613	4.180	1.6456	1/607	4.219	1.6610	1/601	4.258	1.6763	1/595
4.023	1.5838	1/631	4.062	1.5992	1/625	4.101	1.6145	1/619	4.140	1.6299	1/613	4.179	1.6452	1/607	4.218	1.6606	1/602	4.257	1.6759	1/594
4.022	1.5834	1/631	4.061	1.5988	1/625	4.100	1.6141	1/619	4.139	1.6295	1/613	4.178	1.6448	1/607	4.217	1.6602	1/602	4.256	1.6755	1/594
4.021	1.5830	1/631	4.060	1.5984	1/625	4.099	1.6137	1/619	4.138	1.6291	1/613	4.177	1.6444	1/608	4.216	1.6598	1/602	4.255	1.6751	1/594
4.020	1.5826	1/631	4.059	1.5980	1/625	4.098	1.6133	1/619	4.137	1.6287	1/613	4.176	1.6440	1/608	4.215	1.6594	1/602	4.254	1.6747	1/594
4.019	1.5822	1/632	4.058	1.5976	1/625	4.097	1.6129	1/619	4.136	1.6283	1/614	4.175	1.6436	1/608	4.214	1.6590	1/602	4.253	1.6744	1/594
4.018	1.5818	1/632	4.057	1.5972	1/625	4.096	1.6125	1/620	4.135	1.6279	1/614	4.174	1.6433	1/608	4.213	1.6586	1/602	4.252	1.6740	1/594
4.017	1.5814	1/632	4.056	1.5968	1/626	4.095	1.6122	1/620	4.134	1.6275	1/614	4.173	1.6429	1/608	4.212	1.6583	1/602	4.251	1.6736	1/594
4.016	1.5810	1/632	4.055	1.5964	1/626	4.094	1.6118	1/620	4.133	1.6271	1/614	4.172	1.6425	1/608	4.211	1.6579	1/603	4.250	1.6732	1/594
4.015	1.5807	1/632	4.054	1.5960	1/626	4.093	1.6114	1/620	4.132	1.6267	1/614	4.171	1.6421	1/608	4.210	1.6574	1/603	4.249	1.6728	1/594
4.014	1.5803	1/632	4.053	1.5956	1/626	4.092	1.6110	1/620	4.131	1.6263	1/614	4.170	1.6417	1/608	4.209	1.6570	1/603	4.248	1.6724	1/597
4.013	1.5799	1/632	4.052	1.5952	1/626	4.091	1.6106	1/620	4.130	1.6259	1/614	4.169	1.6413	1/609	4.208	1.6566	1/603	4.247	1.6720	1/597
4.012	1.5795	1/633	4.051	1.5948	1/627	4.090	1.6102	1/620	4.129	1.6255	1/615	4.168	1.6409	1/609	4.207	1.6562	1/603	4.246	1.6716	1/597
4.011	1.5791	1/633	4.050	1.5944	1/627	4.089	1.6098	1/621	4.128	1.6251	1/615	4.167	1.6405	1/609	4.206	1.6559	1/603	4.245	1.6712	1/597
4.010	1.5787	1/633	4.049	1.5940	1/627	4.088	1.6094	1/621	4.127	1.6247	1/615	4.166	1.6401	1/609	4.205	1.6555	1/603	4.244	1.6708	1/597
4.009	1.5783	1/633	4.048	1.5936	1/627	4.087	1.6090	1/621	4.126	1.6244	1/615	4.165	1.6397	1/609	4.204	1.6551	1/604	4.243	1.6704	1/596
4.008	1.5779	1/633	4.047	1.5933	1/627	4.086	1.6086	1/621	4.125	1.6240	1/615	4.164	1.6393	1/609	4.203	1.6547	1/604	4.242	1.6700	1/596
4.007	1.5775	1/633	4.046	1.5929	1/627	4.085	1.6082	1/621	4.124	1.6236	1/615	4.163	1.6389	1/610	4.202	1.6543	1/604	4.241	1.6696	1/596
4.006	1.5771	1/633	4.045	1.5925	1/628	4.084	1.6078	1/621	4.123	1.6232	1/615	4.162	1.6385	1/610	4.201	1.6539	1/604	4.240	1.6692	1/596
4.005	1.5767	1/634	4.044	1.5921	1/628	4.083	1.6074	1/622	4.122	1.6228	1/616	4.161	1.6381	1/610	4.200	1.6535	1/604	4.239	1.6688	1/596
4.004	1.5763	1/634	4.043	1.5917	1/628	4.082	1.6070	1/622	4.121	1.6224	1/616	4.160	1.6377	1/610	4.199	1.6531	1/604	4.238	1.6685	1/596
4.003	1.5759	1/634	4.042	1.5913	1/628	4.081	1.6066	1/622	4.120	1.6220	1/616	4.159	1.6373	1/610	4.198	1.6527	1/604	4.237	1.6681	1/596

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
4.276	1.6834	1/593	4.315	1.6988	1/588	4.354	1.7141	1/583	4.393	1.7295	1/578	4.432	1.7448	1/573	4.471	1.7602	1/568	4.510	1.7755	1/563
4.277	1.6838	1/593	4.316	1.6992	1/588	4.355	1.7145	1/583	4.394	1.7299	1/577	4.433	1.7452	1/572	4.472	1.7604	1/567	4.511	1.7759	1/562
4.278	1.6842	1/593	4.317	1.6996	1/588	4.356	1.7149	1/583	4.395	1.7303	1/577	4.434	1.7456	1/572	4.473	1.7610	1/567	4.512	1.7763	1/562
4.279	1.6846	1/593	4.318	1.6999	1/588	4.357	1.7153	1/582	4.396	1.7307	1/577	4.435	1.7460	1/572	4.474	1.7614	1/567	4.513	1.7767	1/562
4.280	1.6850	1/593	4.319	1.7003	1/588	4.358	1.7157	1/582	4.397	1.7310	1/577	4.436	1.7464	1/572	4.475	1.7618	1/567	4.514	1.7771	1/562
4.281	1.6854	1/593	4.320	1.7007	1/587	4.359	1.7161	1/582	4.398	1.7314	1/577	4.437	1.7468	1/572	4.476	1.7622	1/567	4.515	1.7775	1/562
4.282	1.6858	1/593	4.321	1.7011	1/587	4.360	1.7165	1/582	4.399	1.7318	1/577	4.438	1.7472	1/572	4.477	1.7625	1/567	4.516	1.7779	1/562
4.283	1.6862	1/592	4.322	1.7015	1/587	4.361	1.7169	1/582	4.400	1.7322	1/577	4.439	1.7476	1/572	4.478	1.7629	1/567	4.517	1.7783	1/562
4.284	1.6866	1/592	4.323	1.7019	1/587	4.362	1.7173	1/582	4.401	1.7326	1/577	4.440	1.7480	1/572	4.479	1.7633	1/567	4.518	1.7787	1/562
4.285	1.6870	1/592	4.324	1.7023	1/587	4.363	1.7177	1/582	4.402	1.7330	1/576	4.441	1.7484	1/571	4.480	1.7637	1/566	4.519	1.7791	1/562
4.286	1.6873	1/592	4.325	1.7027	1/587	4.364	1.7181	1/581	4.403	1.7334	1/576	4.442	1.7488	1/571	4.481	1.7641	1/566	4.520	1.7795	1/561
4.287	1.6877	1/592	4.326	1.7031	1/587	4.365	1.7185	1/581	4.404	1.7338	1/576	4.443	1.7492	1/571	4.482	1.7645	1/566	4.521	1.7799	1/561
4.288	1.6881	1/592	4.327	1.7035	1/586	4.366	1.7188	1/581	4.405	1.7342	1/576	4.444	1.7496	1/571	4.483	1.7649	1/566	4.522	1.7803	1/561
4.289	1.6885	1/592	4.328	1.7039	1/586	4.367	1.7192	1/581	4.406	1.7346	1/576	4.445	1.7499	1/571	4.484	1.7653	1/566	4.523	1.7807	1/561
4.290	1.6889	1/592	4.329	1.7043	1/586	4.368	1.7196	1/581	4.407	1.7350	1/576	4.446	1.7503	1/571	4.485	1.7657	1/566	4.524	1.7810	1/561
4.291	1.6893	1/591	4.330	1.7047	1/586	4.369	1.7200	1/581	4.408	1.7354	1/576	4.447	1.7507	1/571	4.486	1.7661	1/566	4.525	1.7814	1/561
4.292	1.6897	1/591	4.331	1.7051	1/586	4.370	1.7202	1/581	4.409	1.7358	1/576	4.448	1.7511	1/570	4.487	1.7665	1/566	4.526	1.7818	1/561
4.293	1.6901	1/591	4.332	1.7055	1/586	4.371	1.7208	1/581	4.410	1.7362	1/575	4.449	1.7515	1/570	4.488	1.7669	1/565	4.527	1.7822	1/561
4.294	1.6905	1/591	4.333	1.7059	1/586	4.372	1.7212	1/580	4.411	1.7366	1/575	4.450	1.7519	1/570	4.489	1.7673	1/565	4.528	1.7826	1/560
4.295	1.6909	1/591	4.334	1.7062	1/585	4.373	1.7216	1/580	4.412	1.7370	1/575	4.451	1.5523	1/570	4.490	1.7677	1/565	4.529	1.7830	1/560
4.296	1.6913	1/591	4.335	1.7066	1/585	4.374	1.7220	1/580	4.413	1.7373	1/575	4.452	1.5527	1/570	4.491	1.7681	1/565	4.530	1.7834	1/560
4.297	1.6917	1/591	4.336	1.7070	1/585	4.375	1.7224	1/580	4.414	1.7377	1/575	4.453	1.7531	1/570	4.492	1.7685	1/565	4.531	1.7838	1/560
4.298	1.6921	1/590	4.337	1.7074	1/585	4.376	1.7228	1/580	4.415	1.7381	1/575	4.454	1.7535	1/570	4.493	1.7688	1/565	4.532	1.7842	1/560
4.299	1.6925	1/590	4.338	1.7078	1/585	4.377	1.7232	1/580	4.416	1.7385	1/575	4.455	1.7539	1/569	4.494	1.7692	1/565	4.533	1.7846	1/560
4.300	1.6929	1/590	4.339	1.7082	1/585	4.378	1.7236	1/580	4.417	1.7389	1/574	4.456	1.7543	1/569	4.495	1.7696	1/565	4.534	1.7850	1/560
4.301	1.6933	1/590	4.340	1.7086	1/585	4.379	1.7240	1/579	4.418	1.7393	1/574	4.457	1.7547	1/569	4.496	1.7700	1/564	4.535	1.7854	1/559
4.302	1.6936	1/590	4.341	1.7090	1/585	4.380	1.7244	1/579	4.419	1.7397	1/574	4.458	1.7551	1/569	4.497	1.7704	1/564	4.536	1.7858	1/559
4.303	1.6940	1/590	4.342	1.7094	1/584	4.381	1.7247	1/579	4.420	1.7401	1/574	4.459	1.7555	1/569	4.498	1.7708	1/564	4.537	1.7862	1/559
4.304	1.6944	1/590	4.343	1.7098	1/584	4.382	1.7251	1/579	4.421	1.7405	1/574	4.460	1.7559	1/569	4.499	1.7712	1/564	4.538	1.7866	1/559
4.305	1.6948	1/589	4.344	1.7102	1/584	4.383	1.7255	1/579	4.422	1.7409	1/574	4.461	1.7562	1/569	4.500	1.7716	1/564	4.539	1.7870	1/559
4.306	1.6952	1/589	4.345	1.7106	1/584	4.384	1.7259	1/579	4.423	1.7413	1/574	4.462	1.7566	1/569	4.501	1.7720	1/564	4.540	1.7873	1/559
4.307	1.6956	1/589	4.346	1.7110	1/584	4.385	1.7263	1/579	4.424	1.7417	1/574	4.463	1.7570	1/569	4.502	1.7724	1/564	4.541	1.7877	1/559
4.308	1.6960	1/589	4.347	1.7114	1/584	4.386	1.7267	1/579	4.425	1.7421	1/573	4.464	1.7574	1/568	4.503	1.7728	1/563	4.542	1.7881	1/559
4.309	1.6964	1/589	4.348	1.7118	1/584	4.387	1.7271	1/578	4.426	1.7425	1/573	4.465	1.7578	1/568	4.504	1.7732	1/563	4.543	1.7885	1/559
4.310	1.6968	1/589	4.349	1.7122	1/583	4.388	1.7275	1/578	4.427	1.7429	1/573	4.466	1.7582	1/568	4.505	1.7736	1/563	4.544	1.7889	1/558
4.311	1.6972	1/589	4.350	1.7125	1/583	4.389	1.7279	1/578	4.428	1.7433	1/573	4.467	1.7586	1/568	4.506	1.7740	1/563	4.545	1.7893	1/558
4.312	1.6976	1/589	4.351	1.7129	1/583	4.390	1.7283	1/578	4.429	1.7437	1/573	4.468	1.7590	1/568	4.507	1.7744	1/563	4.546	1.7897	1/558
4.313	1.6980	1/588	4.352	1.7132	1/583	4.391	1.7287	1/578	4.430	1.7440	1/573	4.469	1.7594	1/568	4.508	1.7747	1/563	4.547	1.7901	1/558
4.314	1.6984	1/588	4.353	1.7137	1/583	4.392	1.7291	1/578	4.431	1.7444	1/573	4.470	1.7598	1/568	4.509	1.7751	1/563	4.548	1.7905	1/558

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
4.549	1.7900	1/558	4.588	1.8063	1/553	4.627	1.8216	1/548	4.666	1.8370	1/544	4.705	1.8523	1/539	4.744	1.8677	1/535	4.783	1.8830	1/530
4.550	1.7913	1/558	4.589	1.8066	1/553	4.628	1.8220	1/548	4.667	1.8373	1/544	4.706	1.8527	1/539	4.745	1.8681	1/535	4.784	1.8834	1/530
4.551	1.7917	1/558	4.590	1.8070	1/553	4.629	1.8224	1/548	4.668	1.8377	1/544	4.707	1.8531	1/539	4.746	1.8685	1/535	4.785	1.8838	1/530
4.552	1.7921	1/557	4.591	1.8074	1/553	4.630	1.8228	1/548	4.669	1.8381	1/543	4.708	1.8535	1/539	4.747	1.8688	1/535	4.786	1.8842	1/530
4.553	1.7925	1/557	4.592	1.8078	1/553	4.631	1.8232	1/548	4.670	1.8385	1/543	4.709	1.8539	1/539	4.748	1.8692	1/534	4.787	1.8846	1/530
4.554	1.7929	1/557	4.593	1.8082	1/552	4.632	1.8236	1/548	4.671	1.8389	1/543	4.710	1.8543	1/539	4.749	1.8696	1/534	4.788	1.8850	1/530
4.555	1.7933	1/557	4.594	1.8086	1/552	4.633	1.8240	1/548	4.672	1.8393	1/543	4.711	1.8547	1/539	4.750	1.8700	1/534	4.789	1.8854	1/530
4.556	1.7936	1/557	4.595	1.8090	1/552	4.634	1.8244	1/548	4.673	1.8397	1/543	4.712	1.8551	1/538	4.751	1.8704	1/534	4.790	1.8858	1/529
4.557	1.7940	1/557	4.596	1.8094	1/552	4.635	1.8247	1/547	4.674	1.8401	1/543	4.713	1.8555	1/538	4.752	1.8708	1/534	4.791	1.8862	1/529
4.558	1.7944	1/557	4.597	1.8098	1/552	4.636	1.8251	1/547	4.675	1.8405	1/543	4.714	1.8559	1/538	4.753	1.8712	1/534	4.792	1.8866	1/529
4.559	1.7948	1/557	4.598	1.8102	1/552	4.637	1.8255	1/547	4.676	1.8409	1/543	4.715	1.8562	1/538	4.754	1.8716	1/534	4.793	1.8870	1/529
4.560	1.7952	1/556	4.599	1.8106	1/552	4.638	1.8259	1/547	4.677	1.8413	1/543	4.716	1.8566	1/538	4.755	1.8720	1/534	4.794	1.8873	1/529
4.561	1.7956	1/556	4.600	1.8110	1/552	4.639	1.8263	1/547	4.678	1.8417	1/542	4.717	1.8570	1/538	4.756	1.8724	1/533	4.795	1.8877	1/529
4.562	1.7960	1/556	4.601	1.8114	1/551	4.640	1.8267	1/547	4.679	1.8421	1/542	4.718	1.8574	1/538	4.757	1.8728	1/533	4.796	1.8881	1/529
4.563	1.7964	1/556	4.602	1.8118	1/551	4.641	1.8271	1/547	4.680	1.8425	1/542	4.719	1.8578	1/538	4.758	1.8732	1/533	4.797	1.8885	1/529
4.564	1.7968	1/556	4.603	1.8122	1/551	4.642	1.8275	1/546	4.681	1.8429	1/542	4.720	1.8582	1/538	4.759	1.8736	1/533	4.798	1.8889	1/529
4.565	1.7972	1/556	4.604	1.8125	1/551	4.643	1.8279	1/546	4.682	1.8433	1/542	4.721	1.8586	1/537	4.760	1.8740	1/533	4.799	1.8893	1/529
4.566	1.7976	1/556	4.605	1.8129	1/551	4.644	1.8283	1/546	4.683	1.8436	1/542	4.722	1.8590	1/537	4.761	1.8744	1/533	4.800	1.8897	1/529
4.567	1.7980	1/556	4.606	1.8133	1/551	4.645	1.8287	1/546	4.684	1.8440	1/542	4.723	1.8594	1/537	4.762	1.8747	1/533	4.801	1.8901	1/528
4.568	1.7984	1/556	4.607	1.8137	1/551	4.646	1.8291	1/546	4.685	1.8444	1/542	4.724	1.8598	1/537	4.763	1.8751	1/532	4.802	1.8905	1/528
4.569	1.7988	1/556	4.608	1.8141	1/551	4.647	1.8295	1/546	4.686	1.8448	1/541	4.725	1.8602	1/537	4.764	1.8755	1/532	4.803	1.8909	1/528
4.570	1.7992	1/556	4.609	1.8145	1/551	4.648	1.8299	1/546	4.687	1.8452	1/541	4.726	1.8606	1/537	4.765	1.8759	1/532	4.804	1.8913	1/528
4.571	1.7996	1/555	4.610	1.8149	1/550	4.649	1.8303	1/546	4.688	1.8456	1/541	4.727	1.8610	1/537	4.766	1.8763	1/532	4.805	1.8917	1/528
4.572	1.7999	1/555	4.611	1.8153	1/550	4.650	1.8307	1/546	4.689	1.8460	1/541	4.728	1.8614	1/537	4.767	1.8767	1/532	4.806	1.8921	1/528
4.573	1.8003	1/555	4.612	1.8157	1/550	4.651	1.8310	1/546	4.690	1.8464	1/541	4.729	1.8618	1/537	4.768	1.8771	1/532	4.807	1.8925	1/528
4.574	1.8007	1/555	4.613	1.8161	1/550	4.652	1.8314	1/546	4.691	1.8468	1/541	4.730	1.8622	1/536	4.769	1.8775	1/532	4.808	1.8929	1/528
4.575	1.8011	1/555	4.614	1.8165	1/550	4.653	1.8318	1/545	4.692	1.8472	1/541	4.731	1.8626	1/536	4.770	1.8779	1/532	4.809	1.8933	1/528
4.576	1.8015	1/555	4.615	1.8169	1/550	4.654	1.8322	1/545	4.693	1.8476	1/541	4.732	1.8629	1/536	4.771	1.8783	1/532	4.810	1.8936	1/528
4.577	1.8019	1/554	4.616	1.8173	1/550	4.655	1.8326	1/545	4.694	1.8480	1/541	4.733	1.8633	1/536	4.772	1.8787	1/532	4.811	1.8940	1/527
4.578	1.8023	1/554	4.617	1.8177	1/550	4.656	1.8330	1/545	4.695	1.8484	1/540	4.734	1.8637	1/536	4.773	1.8791	1/532	4.812	1.8944	1/527
4.579	1.8027	1/554	4.618	1.8181	1/549	4.657	1.8334	1/545	4.696	1.8488	1/540	4.735	1.8641	1/536	4.774	1.8795	1/531	4.813	1.8948	1/527
4.580	1.8031	1/554	4.619	1.8185	1/549	4.658	1.8338	1/545	4.697	1.8492	1/540	4.736	1.8645	1/536	4.775	1.8799	1/531	4.814	1.8952	1/527
4.581	1.8035	1/554	4.620	1.8188	1/549	4.659	1.8342	1/545	4.698	1.8496	1/540	4.737	1.8649	1/536	4.776	1.8803	1/531	4.815	1.8956	1/527
4.582	1.8039	1/554	4.621	1.8192	1/549	4.660	1.8346	1/544	4.699	1.8500	1/540	4.738	1.8653	1/536	4.777	1.8807	1/531	4.816	1.8960	1/527
4.583	1.8043	1/554	4.622	1.8196	1/549	4.661	1.8350	1/544	4.700	1.8504	1/540	4.739	1.8657	1/535	4.778	1.8810	1/531	4.817	1.8964	1/527
4.584	1.8047	1/554	4.623	1.8200	1/549	4.662	1.8354	1/544	4.701	1.8507	1/540	4.740	1.8661	1/535	4.779	1.8814	1/531	4.818	1.8968	1/527
4.585	1.8051	1/553	4.624	1.8204	1/549	4.663	1.8358	1/544	4.702	1.8511	1/540	4.741	1.8665	1/535	4.780	1.8818	1/531	4.819	1.8972	1/527
4.586	1.8055	1/553	4.625	1.8208	1/549	4.664	1.8362	1/544	4.703	1.8515	1/540	4.742	1.8669	1/535	4.781	1.8822	1/531	4.820	1.8976	1/526
4.587	1.8059	1/553	4.626	1.8212	1/549	4.665	1.8366	1/544	4.704	1.8519	1/539	4.743	1.8673	1/535	4.782	1.8826	1/531	4.821	1.8980	1/526

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
4.822	1.8984	1/526	4.861	1.9137	1/522	4.900	1.9291	1/518	4.939	1.9444	1/514	4.978	1.9598	1/510	5.017	1.9751	1/506	5.056	1.9905	1/502
4.823	1.8988	1/526	4.862	1.9141	1/522	4.901	1.9295	1/518	4.940	1.9448	1/514	4.979	1.9602	1/510	5.018	1.9755	1/506	5.057	1.9909	1/502
4.824	1.8992	1/526	4.863	1.9145	1/522	4.902	1.9299	1/518	4.941	1.9452	1/514	4.980	1.9606	1/509	5.019	1.9759	1/506	5.058	4.9913	1/502
4.825	1.8996	1/526	4.864	1.9149	1/522	4.903	1.9303	1/517	4.942	1.9456	1/513	4.981	1.9610	1/509	5.020	1.9763	1/505	5.059	1.9917	1/502
4.826	1.8999	1/526	4.865	1.9153	1/522	4.904	1.9307	1/517	4.943	1.9460	1/513	4.982	1.9614	1/509	5.021	1.9767	1/505	5.060	1.9921	1/501
4.827	1.9003	1/526	4.866	1.9157	1/521	4.905	1.9310	1/517	4.944	1.9464	1/513	4.983	1.9618	1/509	5.022	1.9771	1/505	5.061	1.9925	1/501
4.828	1.9007	1/526	4.867	1.9161	1/521	4.906	1.9314	1/517	4.945	1.9468	1/513	4.984	1.9622	1/509	5.023	1.9775	1/505	5.062	1.9929	1/501
4.829	1.9011	1/525	4.868	1.9165	1/521	4.907	1.9318	1/517	4.946	1.9472	1/513	4.985	1.9625	1/509	5.024	1.9779	1/505	5.063	1.9933	1/501
4.830	1.9015	1/525	4.869	1.9169	1/521	4.908	1.9322	1/517	4.947	1.9476	1/513	4.986	1.9629	1/509	5.025	1.9783	1/505	5.064	1.9936	1/501
4.831	1.9019	1/525	4.870	1.9173	1/521	4.909	1.9326	1/517	4.948	1.9480	1/513	4.987	1.9633	1/509	5.026	1.9787	1/505	5.065	1.9940	1/501
4.832	1.9023	1/525	4.871	1.9177	1/521	4.910	1.9330	1/517	4.949	1.9484	1/513	4.988	1.9637	1/509	5.027	1.9791	1/505	5.066	1.9944	1/501
4.833	1.9027	1/525	4.872	1.9181	1/521	4.911	1.9334	1/517	4.950	1.9488	1/513	4.989	1.9641	1/509	5.028	1.9795	1/505	5.067	1.9948	1/501
4.834	1.9031	1/525	4.873	1.9185	1/521	4.912	1.9338	1/517	4.951	1.9492	1/512	4.990	1.9645	1/508	5.029	1.9799	1/505	5.068	1.9952	1/501
4.835	1.9035	1/525	4.874	1.9188	1/521	4.913	1.9342	1/516	4.952	1.9496	1/512	4.991	1.9649	1/508	5.030	1.9803	1/504	5.069	1.9956	1/501
4.836	1.9039	1/525	4.875	1.4192	1/520	4.914	1.9346	1/516	4.953	1.9499	1/512	4.992	1.9653	1/508	5.031	1.9807	1/504	5.070	1.9960	1/500
4.837	1.9043	1/525	4.876	1.9196	1/520	4.915	1.9350	1/516	4.954	1.9503	1/512	4.993	1.9657	1/508	5.032	1.9810	1/504	5.071	1.9464	1/500
4.838	1.9047	1/524	4.877	1.9200	1/520	4.916	1.9354	1/516	4.955	1.9507	1/512	4.994	1.9661	1/508	5.033	1.9814	1/504	5.072	1.9968	1/500
4.839	1.9051	1/524	4.878	1.9204	1/520	4.917	1.9358	1/516	4.956	1.9511	1/512	4.995	1.9665	1/508	5.034	1.9818	1/504	5.073	1.9972	1/500
4.840	1.9055	1/524	4.879	1.9208	1/520	4.918	1.9362	1/516	4.957	1.9515	1/512	4.996	1.9669	1/508	5.035	1.9822	1/504	5.074	1.9976	1/500
4.841	1.9059	1/524	4.880	1.9212	1/520	4.919	1.9366	1/516	4.958	1.9519	1/512	4.997	1.9673	1/508	5.036	1.9826	1/504	5.075	1.9980	1/500
4.842	1.9062	1/524	4.881	1.9216	1/520	4.920	1.9370	1/516	4.959	1.9523	1/512	4.998	1.9677	1/508	5.037	1.9830	1/504	5.076	1.9984	1/500
4.843	1.9066	1/524	4.882	1.9220	1/520	4.921	1.9373	1/516	4.960	1.9527	1/512	4.999	1.9681	1/508	5.038	1.9834	1/504	5.077	1.9988	1/500
4.844	1.9070	1/524	4.883	1.8224	1/520	4.922	1.9377	1/516	4.961	1.9531	1/511	5.000	1.9685	1/507	5.039	1.9838	1/504	5.078	1.9992	1/500
4.845	1.9074	1/524	4.884	1.9228	1/520	4.923	1.9381	1/515	4.962	1.9535	1/511	5.001	1.9688	1/507	5.040	1.9842	1/503	5.079	1.9996	1/500
4.846	1.9078	1/524	4.885	1.9232	1/519	4.924	1.9385	1/515	4.963	1.9539	1/511	5.002	1.9692	1/507	5.041	1.9846	1/503	5.080	1.9999	1/499
4.847	1.9082	1/523	4.886	1.9236	1/519	4.925	1.9389	1/515	4.964	1.9543	1/511	5.003	1.9696	1/507	5.042	1.9850	1/503	5.081	2.0000	1/499
4.848	1.9086	1/523	4.887	1.9240	1/519	4.926	1.9393	1/515	4.965	1.9547	1/511	5.004	1.9700	1/507	5.043	1.9854	1/503	5.082	2.0007	1/499
4.849	1.9090	1/523	4.888	1.9244	1/519	4.927	1.9397	1/515	4.966	1.9551	1/511	5.005	1.9704	1/507	5.044	1.9858	1/503	5.083	2.0011	1/499
4.850	1.9094	1/523	4.889	1.9247	1/519	4.928	1.9401	1/515	4.967	1.9555	1/511	5.006	1.9708	1/507	5.045	1.9862	1/503	5.084	2.0015	1/499
4.851	1.9098	1/523	4.890	1.9251	1/519	4.929	1.9405	1/515	4.968	1.9559	1/511	5.007	1.9712	1/507	5.046	1.9866	1/503	5.085	2.0019	1/499
4.852	1.9102	1/523	4.891	1.9255	1/519	4.930	1.9409	1/515	4.969	1.9562	1/511	5.008	1.9716	1/507	5.047	1.9870	1/503	5.086	2.0023	1/499
4.853	1.9106	1/523	4.892	1.9259	1/519	4.931	1.9413	1/515	4.970	1.9566	1/511	5.009	1.9720	1/507	5.048	1.9873	1/503	5.087	2.0027	1/499
4.854	1.9110	1/523	4.893	1.9263	1/519	4.933	1.9417	1/514	4.971	1.9570	1/510	5.010	1.9724	1/506	5.049	1.9877	1/503	5.088	2.0031	1/499
4.855	1.9114	1/523	4.894	1.9267	1/518	4.933	1.9421	1/514	4.972	1.9574	1/510	5.011	1.9728	1/506	5.050	1.9881	1/502	5.089	2.0035	1/499
4.856	1.9118	1/522	4.895	1.9271	1/518	4.934	1.9425	1/514	4.973	1.9578	1/510	5.012	1.9732	1/506	5.051	1.9885	1/502	5.090	2.0039	1/498
4.857	1.9121	1/522	4.896	1.9275	1/518	4.935	1.9429	1/514	4.974	1.9582	1/510	5.013	1.9736	1/506	5.052	1.9889	1/502	5.091	2.0043	1/498
4.858	1.9125	1/522	4.897	1.9279	1/518	4.936	1.9433	1/514	4.975	1.9586	1/510	5.014	1.9740	1/506	5.053	1.9893	1/502	5.092	2.0047	1/498
4.859	1.9129	1/522	5.898	1.9283	1/518	4.937	1.9436	1/514	4.976	1.9590	1/510	5.015	1.9744	1/506	5.054	1.9897	1/502	5.093	2.0051	1/498
4.860	1.9133	1/522	4.899	1.9287	1/518	4.938	1.9440	1/514	4.977	1.9594	1/510	5.016	1.9747	1/506	5.055	1.9901	1/502	5.094	2.0055	1/498

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
5.095	2.0059	1/498	5.134	2.0212	1/494	5.173	2.0365	1/490	5.212	2.0519	1/487	5.251	2.0673	1/483	5.290	2.0826	1/480	5.329	2.0980	1/476
5.096	2.0062	1/498	5.135	2.0216	1/494	5.174	2.0370	1/490	5.213	2.0523	1/487	5.252	2.0677	1/483	5.291	2.0830	1/480	5.330	2.0984	1/476
5.097	2.0066	1/498	5.136	2.0220	1/494	5.175	2.0373	1/490	5.214	2.0527	1/487	5.253	2.0681	1/483	5.292	2.0834	1/479	5.331	2.0988	1/476
5.098	2.0070	1/498	5.137	2.0224	1/494	5.176	2.0377	1/490	5.215	2.0531	1/486	5.254	2.0684	1/483	5.293	2.0838	1/479	5.332	2.0991	1/476
5.099	2.0074	1/498	5.138	2.0228	1/494	5.177	2.0381	1/490	5.216	2.0535	1/486	5.255	2.0688	1/483	5.294	2.0842	1/479	5.333	2.0995	1/476
5.100	2.0078	1/497	5.139	2.0232	1/494	5.178	2.0385	1/490	5.217	2.0539	1/486	5.256	2.0692	1/483	5.295	2.0846	1/479	5.334	2.0999	1/476
5.101	2.0082	1/497	5.140	2.0236	1/494	5.179	2.0389	1/490	5.218	2.0543	1/486	5.257	2.0696	1/483	5.296	2.0850	1/479	5.335	2.1003	1/476
5.102	2.0086	1/497	5.141	2.0240	1/493	5.180	2.0393	1/490	5.219	2.0547	1/486	5.258	2.0700	1/483	5.297	2.0854	1/479	5.336	2.1007	1/476
5.103	2.0090	1/497	5.142	2.0244	1/493	5.181	2.0397	1/490	5.220	2.0551	1/486	5.259	2.0704	1/482	5.298	2.0858	1/479	5.337	2.1011	1/476
5.104	2.0094	1/497	5.143	2.0247	1/493	5.182	2.0401	1/490	5.221	2.0555	1/486	5.260	2.0708	1/482	5.299	2.0862	1/479	5.338	2.1015	1/476
5.105	2.0098	1/497	5.144	2.0251	1/493	5.183	2.0405	1/490	5.222	2.0559	1/486	5.261	2.0712	1/482	5.300	2.0866	1/479	5.339	2.1019	1/476
5.106	2.0102	1/497	5.145	2.0255	1/493	5.184	2.0409	1/489	5.223	2.0563	1/486	5.262	2.0716	1/482	5.301	2.0870	1/479	5.340	2.1023	1/476
5.107	2.0106	1/497	5.146	2.0259	1/493	5.185	2.0413	1/489	5.224	2.0567	1/486	5.263	2.0724	1/482	5.302	2.0874	1/479	5.341	2.1027	1/476
5.108	2.0110	1/497	5.147	2.0263	1/493	5.186	2.0417	1/489	5.225	2.0570	1/486	5.264	2.0728	1/482	5.303	2.0877	1/478	5.342	2.1031	1/476
5.109	2.0114	1/497	5.148	2.0267	1/493	5.187	2.0421	1/489	5.226	2.0574	1/485	5.265	2.0732	1/482	5.304	2.0881	1/478	5.343	2.1035	1/476
5.110	2.0118	1/497	5.149	2.0271	1/493	5.188	2.0425	1/489	5.227	2.0578	1/485	5.266	2.0732	1/482	5.305	2.0885	1/478	5.344	2.1039	1/476
5.111	2.0122	1/496	5.150	2.0275	1/493	5.189	2.0429	1/488	5.228	2.0582	1/485	5.267	2.0736	1/482	5.306	2.0889	1/478	5.345	2.1043	1/476
5.112	2.0125	1/496	5.151	2.0279	1/493	5.190	2.0433	1/488	5.229	2.0586	1/485	5.268	2.0740	1/482	5.307	2.0893	1/478	5.346	2.1047	1/476
5.113	2.0129	1/496	5.152	2.0283	1/492	5.191	2.0436	1/489	5.230	2.0590	1/485	5.269	2.0744	1/482	5.308	2.0897	1/478	5.347	2.1051	1/476
5.114	2.0133	1/496	5.153	2.0287	1/492	5.192	2.0440	1/489	5.231	2.0594	1/485	5.270	2.0747	1/481	5.309	2.0901	1/478	5.348	2.1055	1/476
5.115	2.0137	1/496	5.154	2.0291	1/492	5.193	2.0444	1/489	5.232	2.0598	1/485	5.271	2.0751	1/481	5.310	2.0905	1/478	5.349	2.1059	1/476
5.116	2.0141	1/496	5.155	2.0295	1/492	5.194	2.0448	1/488	5.233	2.0602	1/485	5.272	2.0755	1/481	5.311	2.0909	1/478	5.350	2.1062	1/476
5.117	2.0145	1/496	5.156	2.0299	1/492	5.195	2.0452	1/488	5.234	2.0606	1/485	5.273	2.0759	1/481	5.312	2.0913	1/478	5.351	2.1066	1/476
5.118	2.0149	1/496	5.157	2.0303	1/492	5.196	2.0456	1/488	5.235	2.0610	1/485	5.274	2.0763	1/481	5.313	2.0917	1/478	5.352	2.1070	1/476
5.119	2.0153	1/496	5.158	2.0307	1/492	5.197	2.0460	1/488	5.236	2.0614	1/485	5.275	2.0767	1/481	5.314	2.0921	1/477	5.353	2.1074	1/476
5.120	2.0157	1/496	5.159	2.0310	1/492	5.198	2.0464	1/488	5.237	2.0618	1/484	5.276	2.0771	1/481	5.315	2.0925	1/478	5.354	2.1078	1/476
5.121	2.0161	1/496	5.160	2.0314	1/492	5.199	2.0468	1/488	5.238	2.0622	1/484	5.277	2.0775	1/481	5.316	2.0929	1/478	5.355	2.1082	1/476
5.122	2.0165	1/495	5.161	2.0318	1/491	5.200	2.0472	1/488	5.239	2.0625	1/484	5.278	2.0779	1/481	5.317	2.0933	1/477	5.356	2.1086	1/476
5.123	2.0169	1/495	5.162	2.0322	1/491	5.201	2.0476	1/488	5.240	2.0629	1/484	5.279	2.0783	1/481	5.318	2.0937	1/477	5.357	2.1090	1/476
5.124	2.0173	1/495	5.163	2.0326	1/491	5.202	2.0480	1/488	5.241	2.0633	1/484	5.280	2.0787	1/481	5.319	2.0940	1/477	5.358	2.1094	1/476
5.125	2.0177	1/495	5.164	2.0330	1/491	5.203	2.0484	1/488	5.242	2.0637	1/484	5.281	2.0791	1/480	5.320	2.0944	1/477	5.359	2.1098	1/476
5.126	2.0181	1/495	5.165	2.0334	1/491	5.204	2.0488	1/488	5.243	2.0641	1/484	5.282	2.0795	1/480	5.321	2.0948	1/477	5.360	2.1102	1/476
5.127	2.0184	1/495	5.166	2.0338	1/491	5.205	2.0492	1/487	5.244	2.0645	1/484	5.283	2.0799	1/480	5.322	2.0952	1/477	5.361	2.1106	1/476
5.128	2.0188	1/495	5.167	2.0342	1/491	5.206	2.0496	1/487	5.245	2.0649	1/484	5.284	2.0803	1/480	5.323	2.0956	1/477	5.362	2.1110	1/476
5.129	2.0192	1/495	5.168	2.0346	1/491	5.207	2.0499	1/487	5.246	2.0653	1/484	5.285	2.0807	1/480	5.324	2.0960	1/477	5.363	2.1114	1/476
5.130	2.0196	1/496	5.169	2.0350	1/491	5.208	2.0503	1/487	5.247	2.0657	1/484	5.286	2.0810	1/480	5.325	2.0964	1/476	5.364	2.1118	1/476
5.131	2.0202	1/494	5.170	2.0354	1/491	5.209	2.0507	1/487	5.248	2.0661	1/483	5.287	2.0814	1/480	5.326	2.0968	1/476	5.365	2.1122	1/476
5.132	2.0204	1/494	5.171	2.0358	1/491	5.210	2.0511	1/487	5.249	2.0665	1/483	5.288	2.0818	1/480	5.327	2.0972	1/476	5.366	2.1125	1/476
5.133	2.0208	1/494	5.172	2.0362	1/491	5.211	2.0515	1/487	5.250	2.0669	1/483	5.289	2.0822	1/480	5.328	2.0976	1/476	5.367	2.1129	1/476

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
5.368	2.1183	1/473	5.407	2.1287	1/469	5.446	2.1410	1/466	5.485	2.1594	1/463	5.524	2.1747	1/459	5.563	2.1901	1/456	5.602	2.2055	1/453
5.369	2.1137	1/473	5.408	2.1291	1/469	5.447	2.1444	1/466	5.486	2.1598	1/462	5.525	2.1751	1/459	5.564	2.1905	1/456	5.603	2.2059	1/453
5.370	2.1141	1/472	5.409	2.1295	1/469	5.448	2.1448	1/466	5.487	2.1602	1/462	5.526	2.1755	1/459	5.565	2.1909	1/456	5.604	2.2062	1/453
5.371	2.1145	1/472	5.410	2.1299	1/469	5.449	2.1452	1/466	5.488	2.1606	1/462	5.527	2.1759	1/459	5.566	2.1913	1/456	5.605	2.2066	1/453
5.372	2.1149	1/472	5.411	2.1303	1/469	5.450	2.1456	1/466	5.489	2.1610	1/462	5.528	2.1763	1/459	5.567	2.1917	1/456	5.606	2.2070	1/453
5.373	2.1153	1/472	5.412	2.1307	1/469	5.451	2.1460	1/465	5.490	2.1614	1/462	5.529	2.1767	1/459	5.568	3.1921	1/456	5.607	2.2074	1/452
5.374	2.1157	1/472	5.413	2.1310	1/469	5.452	2.1464	1/465	5.491	2.1618	1/462	5.530	2.1771	1/459	5.569	2.1925	1/456	5.608	2.2078	1/452
5.375	2.1161	1/472	5.414	2.1314	1/469	5.453	2.1468	1/465	5.492	2.1622	1/462	5.531	2.1775	1/459	5.570	2.1929	1/455	5.609	2.2082	1/452
5.376	2.1165	1/472	5.415	2.1318	1/469	5.454	2.1472	1/465	5.493	2.1625	1/462	5.532	2.1779	1/459	5.571	2.1933	1/455	5.610	2.2086	1/452
5.377	2.1169	1/472	5.416	2.1322	1/468	5.455	2.1476	1/465	5.494	2.1629	1/461	5.533	2.1783	1/459	5.572	2.1936	1/455	5.611	2.2090	1/452
5.378	2.1173	1/472	5.417	2.1326	1/468	5.456	2.1480	1/465	5.495	2.1633	1/462	5.534	2.1787	1/458	5.573	2.1940	1/455	5.612	2.2094	1/452
5.379	2.1177	1/472	5.418	2.1330	1/468	5.457	2.1484	1/465	5.496	2.1637	1/462	5.535	2.1791	1/458	5.574	2.1944	1/455	5.613	2.2098	1/452
5.380	2.1181	1/472	5.419	2.1334	1/468	5.458	2.1488	1/465	5.497	2.1641	1/462	5.536	2.1795	1/458	5.575	2.1948	1/455	5.614	2.2102	1/452
5.381	2.1185	1/471	5.420	2.1338	1/468	5.459	2.1492	1/465	5.498	2.1645	1/461	5.537	2.1799	1/458	5.576	2.1952	1/455	5.615	2.2106	1/452
5.382	2.1188	1/471	5.421	2.1342	1/468	5.460	2.1496	1/465	5.499	2.1649	1/461	5.538	2.1803	1/458	5.577	2.1956	1/455	5.616	2.2110	1/452
5.383	2.1192	1/471	5.422	2.1346	1/468	5.461	2.1499	1/465	5.500	2.1653	1/461	5.539	2.1807	1/458	5.578	2.1960	1/455	5.617	2.2114	1/452
5.384	2.1196	1/471	5.423	2.1350	1/468	5.462	2.1503	1/464	5.501	2.1657	1/461	5.540	2.1810	1/458	5.579	2.1934	1/455	5.618	2.2118	1/452
5.385	2.1200	1/471	5.424	2.1354	1/468	5.463	2.1507	1/464	5.502	2.1661	1/461	5.541	2.1814	1/458	5.580	2.1968	1/455	5.619	2.2122	1/451
5.386	2.1204	1/471	5.425	2.1358	1/468	5.464	2.1511	1/464	5.503	2.1665	1/461	5.542	2.1818	1/458	5.581	2.1972	1/455	5.620	2.2125	1/451
5.387	2.1208	1/471	5.426	2.1362	1/468	5.465	2.1515	1/464	5.504	2.1669	1/461	5.543	2.1822	1/458	5.582	2.1976	1/454	5.621	2.2129	1/451
5.388	2.1212	1/471	5.427	2.1366	1/467	5.466	2.1519	1/464	5.505	2.1673	1/461	5.544	2.1826	1/458	5.583	2.1980	1/454	5.622	2.2133	1/451
5.389	2.1216	1/471	5.428	2.1370	1/467	5.467	2.1523	1/464	5.506	2.1677	1/461	5.545	2.1830	1/458	5.584	2.1984	1/454	5.623	2.2137	1/451
5.390	2.1220	1/471	5.429	2.1373	1/467	5.468	2.1727	1/464	5.507	2.1681	1/461	5.546	2.1834	1/457	5.585	2.1988	1/454	5.624	2.2141	1/451
5.391	2.1224	1/471	5.430	2.1377	1/467	5.469	2.1531	1/464	5.508	2.1684	1/461	5.547	2.1838	1/457	5.586	2.1992	1/454	5.625	2.2145	1/451
5.392	2.1228	1/471	5.431	2.1381	1/467	5.470	2.1535	1/464	5.509	2.1688	1/461	5.548	2.1842	1/457	5.587	2.1996	1/454	5.626	2.2149	1/451
5.393	2.1232	1/470	5.432	2.1385	1/467	5.471	2.1539	1/464	5.510	2.1692	1/460	5.549	2.1846	1/457	5.588	2.1999	1/454	5.627	2.2153	1/451
5.394	2.1236	1/470	5.433	2.1389	1/467	5.472	2.1543	1/464	5.511	2.1696	1/460	5.550	2.1850	1/457	5.589	2.203	1/454	5.628	2.2157	1/451
5.395	2.1240	1/470	5.434	2.1393	1/467	5.473	2.1547	1/464	5.512	3.1700	1/460	5.551	2.1854	1/457	5.590	2.207	1/454	5.629	2.2161	1/451
5.396	2.1244	1/470	5.435	2.1397	1/467	5.474	2.1551	1/463	5.513	2.1704	1/460	5.552	2.1858	1/457	5.591	2.2011	1/454	5.630	2.2165	1/451
5.397	2.1247	1/470	5.436	2.1401	1/467	5.475	2.1555	1/463	5.514	2.1708	1/460	5.553	2.1862	1/457	5.592	2.2015	1/454	5.631	2.2169	1/451
5.398	2.1251	1/470	5.437	2.1405	1/467	5.476	2.1559	1/463	5.515	2.1712	1/460	5.554	2.1866	1/457	5.593	2.2019	1/454	5.632	2.2173	1/450
5.399	2.1255	1/470	5.438	2.1409	1/467	5.477	2.1562	1/463	5.516	2.1716	1/460	5.555	2.1870	1/457	5.594	2.2023	1/454	5.633	2.2177	1/450
5.400	2.1259	1/470	5.439	2.1413	1/466	5.478	2.1566	1/463	5.517	2.1720	1/460	5.556	2.1873	1/457	5.595	2.2027	1/453	5.634	2.2181	1/450
5.401	2.1263	1/470	5.440	2.1417	1/466	5.479	2.1570	1/463	5.518	2.1724	1/460	5.557	2.1877	1/457	5.596	2.2039	1/453	5.635	2.2184	1/450
5.402	2.1267	1/470	5.441	2.1421	1/466	5.480	2.1574	1/463	5.519	2.1728	1/460	5.558	2.1881	1/457	5.597	2.2035	1/453	5.636	2.2188	1/450
5.403	2.1271	1/470	5.442	2.1425	1/466	5.481	2.1578	1/463	5.520	2.1732	1/460	5.559	2.1885	1/456	5.598	2.2039	1/453	5.737	2.2192	1/450
5.404	2.1275	1/469	5.443	2.1429	1/466	5.482	2.1582	1/463	5.521	2.1736	1/460	5.560	2.1889	1/456	5.599	2.2043	1/453	5.638	2.2196	1/450
5.405	2.1279	1/469	5.444	2.1433	1/466	5.483	2.1586	1/463	5.522	2.1740	1/459	5.561	2.1893	1/456	5.600	2.2047	1/453	5.639	2.2200	1/450
5.406	2.1283	1/469	5.445	2.1436	1/466	5.484	2.1590	1/463	5.523	2.1744	1/459	5.562	2.1897	1/456	5.601	2.2051	1/453	5.640	2.2204	1/450

I.— *Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of inch.	Fractions of an inch.	Centimillimeters.	Thousandths of inch.	Fractions of an inch.	Centimillimeters.	Thousandths of inch.	Fractions of an inch.	Centimillimeters.	Thousandths of inch.	Fractions of an inch.	Centimillimeters.	Thousandths of inch.	Fractions of an inch.	Centimillimeters.	Thousandths of inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
5.641	2.2208	1/450	5.680	2.2362	1/447	5.719	2.2515	1/444	5.758	2.2669	1/441	5.797	2.2822	1/438	5.836	2.2976	1/435	5.875	2.3129	1/432
5.642	2.2212	1/450	5.681	2.2366	1/447	5.720	2.2519	1/444	5.759	2.2673	1/440	5.798	2.2826	1/438	5.837	2.2980	1/435	5.876	2.3133	1/432
5.643	2.2216	1/450	5.682	2.2370	1/446	5.721	2.2523	1/443	5.760	2.2677	1/440	5.799	2.2830	1/437	5.838	2.2984	1/435	5.877	2.3137	1/432
5.644	2.2220	1/449	5.683	2.2373	1/446	5.722	2.2527	1/443	5.761	2.2681	1/440	5.800	2.2834	1/437	5.839	2.2988	1/434	5.878	2.3141	1/432
5.645	2.2224	1/449	5.684	2.2377	1/446	5.723	2.2531	1/443	5.762	2.2684	1/440	5.801	2.2838	1/437	5.840	2.2992	1/434	5.879	2.3145	1/431
5.646	2.2228	1/449	5.685	2.2381	1/446	5.724	2.2535	1/443	5.763	2.2688	1/440	5.802	2.2842	1/437	5.841	2.2996	1/434	5.880	2.3140	1/431
5.647	2.2232	1/449	5.686	2.2385	1/446	5.725	2.2539	1/443	5.764	2.2692	1/440	5.803	2.2846	1/437	5.842	2.2999	1/434	5.881	2.3153	1/431
5.648	2.2236	1/449	5.687	2.2389	1/446	5.726	2.2542	1/443	5.765	2.2696	1/440	5.804	2.2850	1/437	5.843	2.3003	1/434	5.882	2.3157	1/431
5.649	2.2240	1/449	5.688	2.2393	1/446	5.727	2.2547	1/443	5.766	2.2700	1/440	5.805	2.2854	1/437	5.844	2.3007	1/434	5.883	2.3161	1/431
5.650	2.2244	1/449	5.689	2.2397	1/446	5.728	2.2551	1/443	5.767	2.2704	1/440	5.806	2.2858	1/437	5.845	2.3011	1/434	5.884	2.3165	1/431
5.651	2.2247	1/449	5.690	2.2401	1/446	5.729	2.2555	1/443	5.768	2.2708	1/440	5.807	2.2861	1/437	5.846	2.3015	1/434	5.885	2.3169	1/431
5.652	2.2251	1/449	5.691	2.2405	1/446	5.730	2.2559	1/443	5.769	2.2712	1/440	5.808	2.2865	1/437	5.847	2.3019	1/434	5.886	2.3173	1/431
5.653	2.2255	1/449	5.692	2.2409	1/446	5.731	2.2562	1/443	5.769	2.2716	1/440	5.809	2.2870	1/437	5.848	2.3023	1/434	5.887	2.3177	1/431
5.654	2.2259	1/449	5.693	2.2413	1/446	5.732	2.2566	1/443	5.771	2.2720	1/439	5.810	2.2873	1/437	5.849	2.3027	1/434	5.888	2.3181	1/431
5.655	2.2263	1/449	5.694	2.2417	1/446	5.733	2.2570	1/442	5.772	2.2724	1/439	5.811	2.2877	1/437	5.850	2.3031	1/434	5.889	2.3184	1/431
5.656	2.2267	1/449	5.695	2.2421	1/445	5.734	2.2574	1/442	5.773	2.2728	1/439	5.812	2.2881	1/436	5.851	2.3035	1/434	5.890	2.3188	1/431
5.657	2.2271	1/448	5.696	2.2425	1/445	5.735	2.2578	1/442	5.774	2.2732	1/439	5.813	2.2885	1/436	5.852	2.3039	1/433	5.891	2.3192	1/431
5.658	2.2275	1/448	5.697	2.2429	1/445	5.736	2.2582	1/442	5.775	2.2736	1/439	5.814	2.2889	1/436	5.853	2.3043	1/433	5.892	2.3196	1/431
5.659	2.2279	1/448	5.698	2.2433	1/445	5.737	2.2586	1/442	5.776	2.2740	1/439	5.815	2.2893	1/436	5.854	2.3047	1/433	5.893	2.3200	1/430
5.660	2.2283	1/448	5.699	2.2436	1/445	5.738	2.2590	1/442	5.777	2.2744	1/439	5.816	2.2897	1/436	5.855	2.3051	1/433	5.894	2.3204	1/430
5.661	2.2287	1/448	5.700	2.2440	1/445	5.739	2.2594	1/442	5.778	2.2747	1/439	5.817	2.2901	1/436	5.856	2.3055	1/433	5.895	2.3208	1/430
5.662	2.2291	1/448	5.701	2.2444	1/445	5.740	2.2598	1/442	5.779	2.2751	1/439	5.818	2.2905	1/436	5.857	2.3059	1/433	5.896	2.3212	1/430
5.663	2.2295	1/448	5.702	2.2448	1/445	5.741	2.2602	1/442	5.780	2.2755	1/439	5.819	2.2909	1/436	5.858	2.3063	1/433	5.897	2.3216	1/430
5.664	2.2299	1/448	5.703	2.2452	1/445	5.742	2.2606	1/442	5.781	2.2759	1/439	5.820	2.2913	1/436	5.859	2.3067	1/433	5.898	2.3220	1/430
5.665	2.2303	1/448	5.704	2.2456	1/445	5.743	2.2610	1/442	5.782	2.2763	1/439	5.821	2.2917	1/436	5.860	2.3070	1/433	5.899	2.3224	1/430
5.666	2.2307	1/448	5.705	2.2460	1/445	5.744	2.2614	1/442	5.783	2.2767	1/439	5.822	2.2921	1/436	5.861	2.3074	1/433	5.900	2.3228	1/430
5.667	2.2310	1/448	5.706	2.2464	1/445	5.745	2.2618	1/442	5.784	2.2771	1/439	5.823	2.2925	1/436	5.862	2.3078	1/433	5.901	2.3232	1/430
5.668	2.2314	1/448	5.707	2.2468	1/445	5.746	2.2622	1/441	5.785	2.2775	1/439	5.824	2.2929	1/436	5.863	2.3082	1/433	5.902	2.3236	1/430
5.669	2.2318	1/447	5.708	2.2472	1/444	5.747	2.2625	1/441	5.786	2.2779	1/438	5.825	2.2932	1/435	5.864	2.3086	1/433	5.903	2.3240	1/430
5.670	2.2322	1/447	5.709	2.2476	1/444	5.748	2.2629	1/441	5.787	2.2783	1/438	5.826	2.2936	1/435	5.865	2.3090	1/433	5.904	2.3244	1/430
5.671	2.2326	1/447	5.710	2.2480	1/444	5.749	2.2633	1/441	5.788	2.2787	1/438	5.827	2.2940	1/435	5.866	2.3094	1/432	5.905	2.3247	1/430
5.672	2.2330	1/447	5.711	2.2484	1/444	5.750	2.2637	1/441	5.789	2.2791	1/438	5.828	2.2944	1/435	5.867	2.3098	1/432	5.906	2.3251	1/430
5.673	2.2334	1/447	5.712	2.2488	1/444	5.751	2.2641	1/441	5.790	2.2795	1/438	5.829	2.2948	1/435	5.868	2.3102	1/432	5.907	2.3255	1/429
5.674	2.2338	1/447	5.713	2.2492	1/443	5.752	2.2645	1/441	5.791	2.2799	1/438	5.830	2.2952	1/435	5.869	2.3106	1/432	5.908	2.3259	1/429
5.675	2.2342	1/447	5.714	2.2496	1/443	5.753	2.2649	1/441	5.792	2.2803	1/438	5.831	2.2956	1/435	5.870	2.3110	1/432	5.909	2.3263	1/429
5.676	2.2346	1/447	5.715	2.2499	1/443	5.754	2.2653	1/441	5.793	2.2807	1/438	5.832	2.2960	1/435	5.871	2.3114	1/432	5.910	2.3267	1/429
5.677	2.2350	1/447	5.716	2.2503	1/443	5.755	2.2657	1/441	5.794	2.2810	1/438	5.833	2.2964	1/435	5.872	2.3118	1/432	5.911	2.3271	1/429
5.678	2.2354	1/447	5.717	2.2507	1/443	5.756	2.2661	1/441	5.795	2.2814	1/438	5.834	2.2968	1/435	5.873	2.3122	1/432	5.912	2.3275	1/429
5.679	2.2358	1/447	5.718	2.2511	1/443	5.757	2.2665	1/441	5.796	2.2818	1/438	5.835	2.2972	1/435	5.874	2.3125	1/432	5.913	2.3279	1/429

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
5.914	2.3283	1/429	5.953	2.3436	1/426	5.992	2.3590	1/423	6.031	2.3744	1/421	6.070	2.3897	1/418	6.109	2.4051	1/415	6.148	2.4204	1/413
5.915	2.3287	1/429	5.954	2.3440	1/426	5.993	2.3594	1/423	6.032	2.3747	1/421	6.071	2.3901	1/418	6.110	2.4055	1/415	6.149	2.4208	1/413
5.916	2.3291	1/429	5.955	2.3444	1/426	5.994	2.3598	1/423	6.033	2.3751	1/420	6.072	2.3905	1/418	6.111	2.4059	1/415	6.150	2.4212	1/412
5.917	2.3295	1/429	5.956	2.3448	1/426	5.995	2.3602	1/423	6.034	2.3755	1/420	6.073	2.3909	1/418	6.112	2.4062	1/415	6.151	2.4216	1/412
5.918	2.3299	1/429	5.957	2.3452	1/426	5.996	2.3606	1/423	6.035	2.3759	1/420	6.074	2.3913	1/418	6.113	2.4066	1/415	6.152	2.4220	1/412
5.919	2.3303	1/429	5.958	2.3456	1/426	5.997	2.3610	1/423	6.036	2.3763	1/420	6.075	2.3917	1/418	6.114	2.4070	1/415	6.153	2.4224	1/412
5.920	2.3307	1/429	5.959	2.3460	1/426	5.998	2.3614	1/423	6.037	2.3767	1/420	6.076	2.3921	1/417	6.115	2.4074	1/415	6.154	2.4228	1/412
5.921	2.3310	1/428	5.960	2.3464	1/426	5.999	2.3618	1/423	6.038	2.3771	1/420	6.077	2.3925	1/417	6.116	2.4078	1/415	6.155	2.4232	1/412
5.922	2.3314	1/428	5.961	2.3468	1/426	6.000	2.3622	1/423	6.039	2.3775	1/420	6.078	2.3929	1/417	6.117	2.4082	1/415	6.156	2.4236	1/412
5.923	2.3318	1/428	5.962	2.3472	1/425	6.001	2.3625	1/423	6.040	2.3779	1/420	6.079	2.3933	1/417	6.118	2.4086	1/415	6.157	2.4240	1/412
5.924	2.3322	1/428	5.963	2.3476	1/425	6.002	2.3629	1/423	6.041	2.3783	1/420	6.080	2.3936	1/417	6.119	2.4090	1/415	6.158	2.4244	1/412
5.925	2.3326	1/428	5.964	2.3480	1/425	6.003	2.3633	1/423	6.042	2.3787	1/420	6.081	2.3940	1/417	6.120	2.4094	1/414	6.159	2.4247	1/412
5.926	2.3330	1/428	5.965	2.3484	1/425	6.004	2.3637	1/422	6.043	2.3791	1/420	6.082	2.3944	1/417	6.121	2.4098	1/414	6.160	2.4251	1/412
5.927	2.3334	1/428	5.966	2.3488	1/425	6.005	2.3641	1/422	6.044	2.3795	1/420	6.083	2.3948	1/417	6.122	2.4102	1/414	6.161	2.4255	1/412
5.928	2.3338	1/428	5.967	2.3492	1/425	6.006	2.3645	1/422	6.045	2.3799	1/420	6.084	2.3952	1/417	6.123	2.4106	1/414	6.162	2.4259	1/412
5.929	2.3342	1/428	5.968	2.3496	1/425	6.007	2.3649	1/422	6.046	2.3803	1/420	6.085	2.3956	1/417	6.124	2.4110	1/414	6.163	2.4263	1/412
5.930	2.3346	1/428	5.969	2.3499	1/425	6.008	2.3653	1/422	6.047	2.3807	1/419	6.086	2.3960	1/417	6.125	2.4114	1/414	6.164	2.4267	1/412
5.931	2.3350	1/428	5.970	2.3503	1/425	6.009	2.3657	1/422	6.048	2.3810	1/419	6.087	2.3964	1/417	6.126	2.4118	1/414	6.165	2.4271	1/411
5.932	2.3354	1/428	5.971	2.3507	1/425	6.010	2.3661	1/422	6.049	2.3814	1/419	6.088	2.3968	1/417	6.127	2.4121	1/414	6.166	2.4275	1/411
5.933	2.3358	1/428	5.972	2.3511	1/425	6.011	2.3665	1/422	6.050	2.3818	1/419	6.089	2.3972	1/417	6.128	2.4125	1/414	6.167	2.4279	1/411
5.934	2.3362	1/426	5.973	2.3515	1/425	6.012	2.3669	1/422	6.051	2.3822	1/419	6.090	2.3976	1/417	6.129	2.4129	1/414	6.168	2.4283	1/411
5.935	2.3366	1/427	5.974	2.3519	1/425	6.013	2.3673	1/422	6.052	2.3826	1/419	6.091	2.3980	1/416	6.130	2.4133	1/414	6.169	2.4287	1/411
5.936	2.3370	1/427	5.975	2.3523	1/425	6.014	2.3677	1/422	6.053	2.3830	1/419	6.092	2.3984	1/416	6.131	2.4137	1/414	6.170	2.4291	1/411
5.937	2.3373	1/427	5.976	2.3527	1/424	6.015	2.3681	1/422	6.054	2.3834	1/419	6.093	2.3988	1/416	6.132	2.4141	1/414	6.171	2.4295	1/411
5.938	2.3377	1/427	5.977	2.3531	1/424	6.016	2.3684	1/422	6.055	2.3838	1/419	6.094	2.3992	1/416	6.133	2.4145	1/414	6.172	2.4299	1/411
5.939	2.3381	1/427	5.978	2.3535	1/424	6.017	2.3688	1/422	6.056	2.3842	1/419	6.095	2.3996	1/416	6.134	2.4149	1/414	6.173	2.4303	1/411
5.940	2.3385	1/427	5.979	2.3539	1/424	6.018	2.3692	1/422	6.057	2.3846	1/419	6.096	2.3999	1/416	6.135	2.4153	1/413	6.174	2.4307	1/411
5.941	2.3389	1/427	5.980	2.3543	1/424	6.019	2.3696	1/421	6.058	2.3850	1/419	6.097	2.4003	1/416	6.136	2.4157	1/413	6.175	2.4310	1/411
5.942	2.3393	1/427	5.981	2.3547	1/424	6.020	2.3700	1/421	6.059	2.3854	1/419	6.098	2.4007	1/416	6.137	2.4161	1/413	6.176	2.4314	1/411
5.943	2.3397	1/427	5.982	2.3551	1/424	6.021	2.3704	1/421	6.060	2.3858	1/419	6.099	2.4011	1/416	6.138	2.4165	1/413	6.177	2.4318	1/411
5.944	2.3401	1/427	5.983	2.3555	1/424	6.022	2.3708	1/421	6.061	2.3862	1/419	6.100	2.4015	1/416	6.139	2.4169	1/413	6.178	2.4322	1/411
5.945	2.3405	1/427	5.984	2.3559	1/424	6.023	2.3712	1/421	6.062	2.3866	1/418	6.101	2.4019	1/416	6.140	2.4173	1/413	6.179	2.4326	1/411
5.946	2.3409	1/427	5.985	2.3562	1/424	6.024	2.3716	1/421	6.063	2.3870	1/418	6.102	2.4023	1/416	6.141	2.4177	1/413	6.180	2.4330	1/410
5.947	2.3413	1/427	5.986	2.3566	1/424	6.025	2.3720	1/421	6.064	2.3873	1/418	6.103	2.4027	1/416	6.142	2.4181	1/413	6.181	2.4334	1/410
5.948	2.3417	1/426	5.987	2.3570	1/424	6.026	2.3724	1/421	6.065	2.3877	1/418	6.104	2.4031	1/416	6.143	2.4184	1/413	6.182	2.4338	1/410
5.949	2.3421	1/426	5.988	2.3574	1/424	6.027	2.3728	1/421	6.066	2.3881	1/418	6.105	2.4035	1/416	6.144	2.4188	1/413	6.183	2.4342	1/410
5.950	2.3425	1/426	5.989	2.3578	1/424	6.028	2.3732	1/421	6.067	2.3885	1/418	6.106	2.4039	1/415	6.145	2.4192	1/413	6.184	2.4346	1/410
5.951	2.3429	1/426	5.990	2.3582	1/423	6.029	2.3736	1/421	6.068	2.3889	1/418	6.107	2.4043	1/415	6.146	2.4196	1/413	6.185	2.4350	1/410
5.952	2.3433	1/426	5.991	2.3586	1/423	6.030	2.3740	1/421	6.069	2.3893	1/418	6.108	2.4047	1/415	6.147	2.4200	1/413	6.186	2.4354	1/410

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
0.187	2.4358	1/410	0.226	2.4511	1/407	0.265	2.4665	1/405	0.304	2.4818	1/402	0.343	2.4972	1/400	0.382	2.5125	1/397	0.421	2.5279	1/395
0.188	2.4362	1/410	0.227	2.4515	1/407	0.266	2.4669	1/405	0.305	2.4822	1/402	0.344	2.4976	1/400	0.383	2.5129	1/397	0.422	2.5283	1/395
0.189	2.4366	1/410	0.228	2.4519	1/407	0.267	2.4673	1/405	0.306	2.4826	1/402	0.345	2.4980	1/400	0.384	2.5133	1/397	0.423	2.5287	1/395
0.190	2.4370	1/410	0.229	2.4523	1/407	0.268	2.4677	1/405	0.307	2.4830	1/403	0.346	2.4984	1/400	0.385	2.5137	1/397	0.424	2.5291	1/395
0.191	2.4373	1/410	0.230	2.4527	1/407	0.269	2.4681	1/405	0.308	2.4834	1/402	0.347	2.4988	1/400	0.386	2.5141	1/397	0.425	2.5295	1/395
0.192	2.4377	1/410	0.231	2.4531	1/407	0.270	2.4684	1/405	0.309	2.4838	1/402	0.348	2.4992	1/400	0.387	2.5145	1/397	0.426	2.5299	1/395
0.193	2.4381	1/410	0.232	2.4535	1/407	0.271	2.4688	1/404	0.310	2.4842	1/402	0.349	2.4996	1/400	0.388	2.5149	1/397	0.427	2.5303	1/395
0.194	2.4385	1/410	0.233	2.4539	1/407	0.272	2.4692	1/404	0.311	2.4846	1/402	0.350	2.4999	1/399	0.389	2.5153	1/397	0.428	2.5307	1/395
0.195	2.4389	1/409	0.234	2.4543	1/407	0.273	2.4696	1/404	0.312	2.4850	1/402	0.351	2.5003	1/399	0.390	2.5157	1/397	0.429	2.5311	1/395
0.196	2.4393	1/409	0.235	2.4547	1/407	0.274	2.4700	1/404	0.313	2.4854	1/402	0.352	2.5007	1/399	0.391	2.5161	1/397	0.430	2.5314	1/394
0.197	2.4397	1/409	0.236	2.4551	1/407	0.275	2.4704	1/404	0.314	2.4858	1/402	0.353	2.5011	1/399	0.392	2.5165	1/397	0.431	2.5318	1/394
0.198	2.4401	1/409	0.237	2.4555	1/407	0.276	2.4708	1/404	0.315	2.4862	1/402	0.354	2.5015	1/399	0.393	2.5169	1/397	0.432	2.5322	1/394
0.199	2.4405	1/409	0.238	2.4559	1/407	0.277	2.4712	1/404	0.316	2.4866	1/402	0.355	2.5019	1/399	0.394	2.5173	1/397	0.433	2.5326	1/394
0.200	2.4409	1/409	0.239	2.4562	1/407	0.278	2.4716	1/404	0.317	2.4870	1/402	0.356	2.5023	1/399	0.395	2.5177	1/397	0.434	2.5330	1/394
0.201	2.4413	1/409	0.240	2.4566	1/407	0.279	2.4720	1/404	0.318	2.4873	1/401	0.357	2.5027	1/399	0.396	2.5181	1/397	0.435	2.5334	1/394
0.202	2.4417	1/409	0.241	2.4570	1/407	0.280	2.4724	1/404	0.319	2.4877	1/401	0.358	2.5031	1/399	0.397	2.5184	1/397	0.436	2.5338	1/394
0.203	2.4421	1/409	0.242	2.4574	1/406	0.281	2.4728	1/404	0.320	2.4881	1/401	0.359	2.5035	1/399	0.398	2.5188	1/396	0.437	2.5342	1/394
0.204	2.4425	1/409	0.243	2.4578	1/406	0.282	2.4732	1/404	0.321	2.4885	1/401	0.360	2.5039	1/399	0.399	2.5192	1/396	0.438	2.5346	1/394
0.205	2.4429	1/409	0.244	2.4582	1/406	0.283	2.4736	1/404	0.322	2.4889	1/401	0.361	2.5043	1/399	0.400	2.5196	1/396	0.439	2.5350	1/394
0.206	2.4433	1/409	0.245	2.4586	1/406	0.284	2.4740	1/404	0.323	2.4893	1/401	0.362	2.5047	1/399	0.401	2.5200	1/396	0.440	2.5354	1/394
0.207	2.4436	1/409	0.246	2.4590	1/406	0.285	2.4744	1/404	0.324	2.4897	1/401	0.363	2.5051	1/399	0.402	2.5204	1/396	0.441	2.5358	1/394
0.208	2.4440	1/409	0.247	2.4594	1/406	0.286	2.4747	1/404	0.325	2.4901	1/401	0.364	2.5055	1/399	0.403	2.5208	1/396	0.442	2.5362	1/394
0.209	2.4444	1/409	0.248	2.4598	1/406	0.287	2.4751	1/403	0.326	2.4905	1/401	0.365	2.5059	1/399	0.404	2.5212	1/396	0.443	2.5366	1/394
0.210	2.4448	1/408	0.249	2.4602	1/406	0.288	2.4755	1/403	0.327	2.4909	1/401	0.366	2.5062	1/398	0.405	2.5216	1/396	0.444	2.5370	1/394
0.211	2.4452	1/408	0.250	2.4606	1/406	0.289	2.4759	1/403	0.328	2.4913	1/401	0.367	2.5066	1/398	0.406	2.5220	1/396	0.445	2.5373	1/394
0.212	2.4459	1/408	0.251	2.4610	1/406	0.290	2.4763	1/403	0.329	2.4917	1/401	0.368	2.5070	1/398	0.407	2.5224	1/396	0.446	2.5377	1/394
0.213	2.4460	1/408	0.252	2.4614	1/406	0.291	2.4767	1/403	0.330	2.4921	1/401	0.369	2.5074	1/398	0.408	2.5228	1/396	0.447	2.5381	1/394
0.214	2.4464	1/408	0.253	2.4618	1/406	0.292	2.4771	1/403	0.331	2.4925	1/401	0.370	2.5078	1/398	0.409	2.5232	1/396	0.448	2.5385	1/394
0.215	2.4468	1/408	0.254	2.4621	1/406	0.293	2.4775	1/403	0.332	2.4929	1/401	0.371	2.5082	1/398	0.410	2.5236	1/396	0.449	2.5389	1/394
0.216	2.4472	1/408	0.255	2.4625	1/406	0.294	2.4779	1/403	0.333	2.4933	1/401	0.372	2.5086	1/398	0.411	2.5240	1/396	0.450	2.5393	1/394
0.217	2.4476	1/408	0.256	2.4629	1/405	0.295	2.4783	1/403	0.334	2.4936	1/400	0.373	2.5090	1/398	0.412	2.5244	1/396	0.451	2.5397	1/394
0.218	2.4480	1/408	0.257	2.4633	1/405	0.296	2.4787	1/403	0.335	2.4940	1/400	0.374	2.5094	1/398	0.413	2.5247	1/396	0.452	2.5401	1/394
0.219	2.4484	1/408	0.258	2.4637	1/405	0.297	2.4791	1/403	0.336	2.4944	1/400	0.375	2.5098	1/398	0.414	2.5251	1/396	0.453	2.5405	1/394
0.220	2.4488	1/408	0.259	2.4641	1/405	0.298	2.4795	1/403	0.337	2.4948	1/400	0.376	2.5102	1/398	0.415	2.5255	1/396	0.454	2.5409	1/394
0.221	2.4492	1/408	0.260	2.4645	1/405	0.299	2.4799	1/403	0.338	2.4952	1/400	0.377	2.5106	1/398	0.416	2.5259	1/396	0.455	2.5413	1/394
0.222	2.4496	1/408	0.261	2.4649	1/405	0.300	2.4803	1/402	0.339	2.4956	1/400	0.378	2.5110	1/398	0.417	2.5263	1/396	0.456	2.5417	1/394
0.223	2.4499	1/408	0.262	2.4653	1/405	0.301	2.4807	1/403	0.340	2.4960	1/400	0.379	2.5114	1/398	0.418	2.5267	1/396	0.457	2.5421	1/394
0.224	2.4503	1/408	0.263	2.4657	1/405	0.302	2.4810	1/402	0.341	2.4964	1/400	0.380	2.5118	1/398	0.419	2.5271	1/396	0.458	2.5425	1/394
0.225	2.4507	1/407	0.264	2.4661	1/405	0.303	2.4814	1/402	0.342	2.4968	1/400	0.381	2.5121	1/398	0.420	2.5275	1/396	0.459	2.5429	1/394

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
6.460	2.5433	1/393	6.499	2.5586	1/390	6.538	2.5740	1/388	6.577	2.5893	1/386	6.616	2.6047	1/383	6.655	2.6200	1/381	6.694	2.6354	1/379
6.461	2.5436	1/393	6.500	2.5590	1/390	6.539	2.5744	1/388	6.578	2.5897	1/386	6.617	2.6051	1/383	6.656	2.6204	1/381	6.695	2.6358	1/379
6.462	2.5440	1/393	6.501	2.5594	1/390	6.540	2.5747	1/388	6.579	2.5901	1/386	6.618	2.6055	1/383	6.657	2.6208	1/381	6.696	2.6362	1/379
6.463	2.5444	1/392	6.502	2.5598	1/390	6.541	2.5751	1/388	6.580	2.5905	1/385	6.619	2.6059	1/383	6.658	2.6212	1/381	6.697	2.6366	1/379
6.464	2.5448	1/392	6.503	2.5602	1/390	6.542	2.5755	1/388	6.581	1.5909	1/385	6.620	2.6062	1/383	6.659	2.6216	1/381	6.698	2.6370	1/379
6.465	2.5452	1/392	6.504	2.5606	1/390	6.543	2.5759	1/388	6.582	2.5913	1/385	6.621	2.6066	1/383	6.660	2.6220	1/381	6.699	2.6374	1/379
6.466	2.5456	1/392	6.505	2.5610	1/390	6.544	2.5763	1/388	6.583	2.5917	1/385	6.622	2.6070	1/383	6.661	2.6224	1/381	6.700	2.6377	1/379
6.467	2.5460	1/392	6.506	2.5614	1/390	6.545	2.5767	1/388	6.584	2.5921	1/385	6.623	2.6074	1/383	6.662	2.6228	1/381	6.701	2.6381	1/379
6.468	2.5464	1/392	6.507	2.5618	1/390	6.546	2.5771	1/387	6.585	2.5925	1/385	6.624	2.6078	1/383	6.663	2.6232	1/381	6.702	2.6385	1/378
6.469	2.5468	1/392	6.508	2.5621	1/390	6.547	2.5775	1/387	6.586	2.5929	1/385	6.625	2.6082	1/383	6.664	2.6236	1/381	6.703	2.6389	1/378
6.470	2.5472	1/392	6.509	2.5625	1/390	6.548	2.5779	1/387	6.587	2.5933	1/385	6.626	2.6086	1/383	6.665	2.6240	1/381	6.704	2.6393	1/378
6.471	2.5476	1/392	6.510	2.5629	1/390	6.549	2.5783	1/387	6.588	2.5936	1/385	6.627	2.6090	1/383	6.666	2.6244	1/380	6.705	2.6397	1/378
6.472	2.5480	1/392	6.511	2.5633	1/390	6.550	2.5787	1/387	6.589	2.5940	1/385	6.628	2.6094	1/383	6.667	2.6247	1/380	6.706	2.6401	1/378
6.473	2.5484	1/392	6.512	2.5637	1/390	6.551	2.5791	1/387	6.590	2.5944	1/385	6.629	2.6098	1/383	6.668	2.6251	1/380	6.707	2.6405	1/378
6.474	2.5488	1/392	6.513	2.5641	1/389	6.552	2.5795	1/387	6.591	2.5948	1/385	6.630	2.6102	1/383	6.669	2.6255	1/380	6.708	2.6409	1/378
6.475	2.5492	1/392	6.514	2.5645	1/389	6.553	2.5799	1/387	6.592	2.5952	1/385	6.631	2.6106	1/383	6.670	2.6259	1/380	6.709	2.6413	1/378
6.476	2.5496	1/392	6.515	2.5649	1/389	6.554	2.5803	1/387	6.593	2.5956	1/385	6.632	2.6110	1/382	6.671	2.6263	1/380	6.710	2.6417	1/378
6.477	2.5499	1/392	6.516	2.5653	1/389	6.555	2.5807	1/387	6.594	2.5960	1/385	6.633	2.6114	1/382	6.672	2.6267	1/380	6.711	2.6421	1/378
6.478	2.5503	1/392	6.517	2.5657	1/389	6.556	2.5810	1/387	6.595	2.5964	1/385	6.634	2.6118	1/382	6.673	2.6271	1/380	6.712	2.6425	1/378
6.479	2.5507	1/391	6.518	2.5661	1/389	6.557	2.5814	1/387	6.596	2.5968	1/385	6.635	2.6121	1/382	6.674	2.6275	1/380	6.713	2.6429	1/378
6.480	2.5511	1/391	6.519	2.5665	1/389	6.558	2.5818	1/387	6.597	2.5972	1/384	6.636	2.6125	1/382	6.675	2.6279	1/380	6.714	2.6433	1/378
6.481	2.5515	1/391	6.520	2.5669	1/389	6.559	2.5822	1/387	6.598	2.5976	1/384	6.637	2.6129	1/382	6.676	2.6283	1/380	6.715	2.6436	1/378
6.482	2.5519	1/391	6.521	2.5673	1/389	6.560	2.5826	1/387	6.599	2.5980	1/384	6.638	2.6133	1/382	6.677	2.6287	1/380	6.716	2.6440	1/378
6.483	2.5523	1/391	6.522	2.5677	1/389	6.561	2.5830	1/387	6.600	2.5984	1/384	6.639	2.6137	1/382	6.678	2.6291	1/380	6.717	2.6444	1/378
6.484	2.5527	1/391	6.523	2.5681	1/389	6.562	2.5834	1/387	6.601	2.5988	1/384	6.640	2.6141	1/382	6.679	2.6295	1/380	6.718	2.6448	1/378
6.485	2.5531	1/391	6.524	2.5684	1/389	6.563	2.5838	1/386	6.602	2.5992	1/384	6.641	2.6145	1/382	6.680	2.6299	1/380	6.719	2.6452	1/377
6.486	2.5535	1/391	6.525	2.5688	1/389	6.564	2.5842	1/386	6.603	2.5996	1/384	6.642	2.6149	1/382	6.681	2.6303	1/380	6.720	2.6456	1/377
6.487	2.5539	1/391	6.526	2.5692	1/389	6.565	2.5846	1/386	6.604	2.5999	1/384	6.643	2.6153	1/382	6.682	2.6307	1/380	6.721	2.6460	1/377
6.488	2.5543	1/391	6.527	2.5696	1/389	6.566	2.5850	1/386	6.605	2.6003	1/384	6.644	2.6157	1/382	6.683	2.6310	1/380	6.722	2.6464	1/377
6.489	2.5547	1/391	6.528	2.5700	1/389	6.567	2.5854	1/386	6.606	2.6007	1/384	6.645	2.6161	1/382	6.684	2.6314	1/379	6.723	2.6468	1/377
6.490	2.5551	1/391	6.529	2.5704	1/388	6.568	2.5858	1/386	6.607	2.6011	1/384	6.646	2.6165	1/382	6.685	2.6318	1/379	6.724	2.6472	1/377
6.491	2.5555	1/391	6.530	2.5708	1/388	6.569	2.5862	1/386	6.608	2.6015	1/384	6.647	2.6169	1/382	6.686	2.6322	1/379	6.725	2.6476	1/377
6.492	2.5559	1/391	6.531	2.5712	1/388	6.570	2.5866	1/386	6.609	2.6019	1/384	6.648	2.6173	1/382	6.687	2.6326	1/379	6.726	2.6480	1/377
6.493	2.5562	1/391	6.532	2.5716	1/388	6.571	2.5870	1/386	6.610	2.6023	1/384	6.649	2.6177	1/381	6.688	2.6330	1/379	6.727	2.6484	1/377
6.494	2.5566	1/391	6.533	2.5720	1/388	6.572	2.5873	1/386	6.611	2.6027	1/384	6.650	2.6181	1/381	6.689	2.6334	1/379	6.728	2.6488	1/377
6.495	2.5570	1/391	6.534	2.5724	1/388	6.573	2.5877	1/386	6.612	2.6031	1/384	6.651	2.6184	1/381	6.690	2.6338	1/379	6.729	2.6492	1/377
6.496	2.5574	1/390	6.535	2.5728	1/388	6.574	2.5881	1/386	6.613	2.6035	1/384	6.652	2.6188	1/381	6.691	2.6342	1/379	6.730	2.6496	1/377
6.497	2.5578	1/390	6.536	2.5732	1/388	6.575	2.5885	1/386	6.614	2.6039	1/383	6.653	2.6192	1/381	6.692	2.6346	1/329	6.731	2.6499	1/377
6.498	2.5582	1/390	6.537	2.5736	1/388	6.576	2.5889	1/386	6.615	2.6043	1/383	6.654	2.6196	1/381	6.693	2.6350	1/379	6.732	2.6503	1/377

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
0.733	2.6507	1/377	0.772	2.6661	1/375	0.811	2.6814	1/372	0.850	2.6968	1/370	0.889	2.7121	1/368	0.928	2.7275	1/366	0.967	2.7429	1/364
0.734	2.6511	1/377	0.773	2.6665	1/374	0.812	2.6818	1/372	0.851	2.6972	1/370	0.890	2.7125	1/368	0.929	2.7279	1/366	0.968	2.7433	1/364
0.735	2.6515	1/377	0.774	2.6669	1/374	0.813	2.6822	1/372	0.852	2.6976	1/370	0.891	2.7129	1/368	0.930	2.7283	1/366	0.969	2.7436	1/364
0.736	2.6519	1/377	0.775	2.6673	1/374	0.814	2.6826	1/372	0.853	2.6980	1/370	0.892	2.7133	1/368	0.931	2.7287	1/366	0.970	2.7440	1/364
0.737	2.6523	1/376	0.776	2.6677	1/374	0.815	2.6830	1/372	0.854	2.6984	1/370	0.893	2.7137	1/368	0.932	2.7291	1/366	0.971	2.7444	1/364
0.738	2.6527	1/376	0.777	2.6681	1/374	0.816	2.6834	1/372	0.855	2.6988	1/370	0.894	2.7141	1/368	0.933	2.7295	1/366	0.972	2.7448	1/364
0.739	2.6531	1/376	0.778	2.6684	1/374	0.817	2.6838	1/372	0.856	2.6992	1/370	0.895	2.7145	1/368	0.934	2.7299	1/366	0.973	2.7452	1/364
0.740	2.6535	1/376	0.779	2.6688	1/374	0.818	2.6842	1/372	0.857	2.6996	1/370	0.896	2.7149	1/368	0.935	2.7303	1/366	0.974	2.7456	1/364
0.741	2.6539	1/376	0.780	2.6692	1/374	0.819	2.6846	1/372	0.858	2.6999	1/370	0.897	2.7153	1/368	0.936	2.7307	1/366	0.975	2.7460	1/364
0.742	2.6543	1/376	0.781	2.6696	1/374	0.820	2.6850	1/372	0.859	2.7003	1/370	0.898	2.7157	1/368	0.937	2.7310	1/366	0.976	2.7464	1/364
0.743	2.6547	1/376	0.782	2.6700	1/374	0.821	2.6853	1/372	0.860	2.7007	1/370	0.899	2.7161	1/368	0.938	2.7314	1/366	0.977	2.7468	1/364
0.744	2.6551	1/376	0.783	2.6704	1/374	0.822	2.6858	1/372	0.861	2.7011	1/370	0.900	2.7165	1/368	0.939	2.7318	1/366	0.978	2.7472	1/363
0.745	2.6555	1/376	0.784	2.6708	1/374	0.823	2.6862	1/372	0.862	2.7015	1/370	0.901	2.7169	1/368	0.940	2.7322	1/365	0.979	2.7476	1/363
0.746	2.2559	1/376	0.785	2.6712	1/374	0.824	2.6866	1/372	0.863	2.7019	1/370	0.902	2.7173	1/367	0.941	2.7326	1/365	0.980	2.7480	1/363
0.747	2.6563	1/376	0.786	2.6716	1/374	0.825	2.6870	1/372	0.864	2.7023	1/370	0.903	2.7177	1/367	0.942	2.7330	1/365	0.981	2.7484	1/363
0.748	2.6566	1/376	0.787	2.6720	1/374	0.826	2.6873	1/372	0.865	2.7027	1/369	0.904	2.7181	1/367	0.943	2.7334	1/365	0.982	2.7488	1/363
0.749	2.6570	1/376	0.788	2.6724	1/374	0.827	2.6877	1/372	0.866	2.7031	1/369	0.905	2.7184	1/367	0.944	2.7338	1/365	0.983	2.7492	1/363
0.750	2.6574	1/376	0.789	2.6728	1/374	0.828	2.6881	1/371	0.867	2.7035	1/369	0.906	2.7188	1/367	0.945	2.7342	1/365	0.984	2.7496	1/363
0.751	2.6578	1/376	0.790	2.6732	1/374	0.829	2.6885	1/371	0.868	2.7039	1/369	0.907	2.7192	1/367	0.946	2.7346	1/365	0.985	2.7499	1/363
0.752	2.6582	1/376	0.791	2.6736	1/373	0.830	2.6889	1/371	0.869	2.7043	1/369	0.908	2.7196	1/367	0.947	2.7350	1/365	0.986	2.7503	1/363
0.753	2.6586	1/376	0.792	2.6740	1/373	0.831	2.6893	1/371	0.870	2.7047	1/369	0.909	2.7200	1/367	0.948	2.7354	1/365	0.987	2.7507	1/363
0.754	2.6590	1/376	0.793	2.6744	1/373	0.832	2.6897	1/371	0.871	2.7051	1/369	0.910	2.7204	1/367	0.949	2.7358	1/365	0.988	2.7511	1/363
0.755	2.6594	1/376	0.794	2.6747	1/373	0.833	2.6901	1/371	0.872	2.7055	1/369	0.911	2.7208	1/367	0.950	2.7362	1/365	0.989	2.7515	1/363
0.756	2.6598	1/376	0.795	2.6751	1/373	0.834	2.6905	1/371	0.873	2.7059	1/369	0.912	2.7212	1/367	0.951	2.7366	1/365	0.990	2.7519	1/363
0.757	2.6602	1/376	0.796	2.6755	1/373	0.835	2.6909	1/371	0.874	2.7062	1/369	0.913	2.7216	1/367	0.952	2.7370	1/365	0.991	2.7523	1/363
0.758	2.6606	1/375	0.797	2.6759	1/373	0.836	2.6913	1/371	0.875	2.7066	1/369	0.914	2.7220	1/367	0.953	2.7374	1/365	0.992	2.7527	1/363
0.759	2.6610	1/375	0.798	2.6763	1/373	0.837	2.6917	1/371	0.876	2.7070	1/369	0.915	2.7224	1/367	0.954	2.7377	1/365	0.993	2.7531	1/363
0.760	2.6614	1/375	0.799	2.6767	1/373	0.838	2.6921	1/371	0.877	2.7074	1/369	0.916	2.7228	1/367	0.955	2.7381	1/365	0.994	2.7535	1/363
0.761	2.6618	1/375	0.800	2.6771	1/373	0.839	2.6925	1/371	0.878	2.7078	1/369	0.917	2.7232	1/367	0.956	2.7385	1/365	0.995	2.7539	1/363
0.762	2.6621	1/375	0.801	2.6775	1/373	0.840	2.6929	1/371	0.879	2.7082	1/369	0.918	2.7236	1/367	0.957	2.7389	1/365	0.996	2.7543	1/363
0.763	2.6625	1/375	0.802	2.6779	1/373	0.841	2.6933	1/371	0.880	2.7086	1/369	0.919	2.7240	1/367	0.958	2.7393	1/365	0.997	2.7547	1/362
0.764	2.6629	1/375	0.803	2.6783	1/373	0.842	2.6937	1/371	0.881	2.7090	1/369	0.920	2.7244	1/367	0.959	2.7397	1/364	0.998	2.7551	1/362
0.765	2.6633	1/375	0.804	2.6787	1/373	0.843	2.6940	1/371	0.882	2.7094	1/369	0.921	2.7247	1/366	0.960	2.7401	1/364	0.999	2.7555	1/362
0.766	2.6637	1/375	0.805	2.6791	1/373	0.844	2.6944	1/371	0.883	2.7098	1/368	0.922	2.7251	1/366	0.961	2.7405	1/364	1.000	2.7559	1/362
0.767	2.6641	1/375	0.806	2.6795	1/373	0.845	2.6948	1/371	0.884	2.7102	1/368	0.923	2.7255	1/366	0.962	2.7409	1/364	1.001	2.7562	1/362
0.768	2.6645	1/375	0.807	2.6799	1/373	0.846	2.6952	1/370	0.885	2.7106	1/368	0.924	2.7259	1/366	0.963	2.7413	1/364	1.002	2.7566	1/362
0.769	2.6649	1/375	0.808	2.6803	1/373	0.847	2.6956	1/370	0.886	2.7110	1/368	0.925	2.7263	1/366	0.964	2.7417	1/364	1.003	2.7570	1/362
0.770	2.6653	1/375	0.809	2.6807	1/372	0.848	2.6960	1/370	0.887	2.7114	1/368	0.926	2.7267	1/366	0.965	2.7421	1/364	1.004	2.7574	1/362
0.771	2.6657	1/375	0.810	2.6810	1/372	0.849	2.6964	1/370	0.888	2.7118	1/368	0.927	2.7271	1/366	0.966	2.7425	1/364	1.005	2.7578	1/362

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
7.006	2.7582	1/362	7.045	2.7736	1/360	7.084	2.7889	1/358	7.123	2.8043	1/356	7.162	2.8196	1/354	7.201	2.8350	1/352	7.240	2.8503	1/350
7.007	2.7586	1/362	7.046	2.7740	1/360	7.085	2.7893	1/358	7.124	2.8047	1/356	7.163	2.8200	1/354	7.202	2.8354	1/352	7.241	2.8507	1/350
7.008	2.7590	1/362	7.047	2.7744	1/360	7.086	2.7897	1/358	7.125	2.8051	1/356	7.164	2.8204	1/354	7.203	2.8358	1/352	7.242	2.8511	1/350
7.009	2.7594	1/362	7.048	2.7747	1/360	7.087	2.7901	1/358	7.126	2.8055	1/356	7.165	2.8208	1/354	7.204	2.8362	1/352	7.243	2.8515	1/350
7.010	2.7598	1/362	7.049	2.7751	1/360	7.088	2.7905	1/358	7.127	2.8058	1/356	7.166	2.8212	1/354	7.205	2.8366	1/352	7.244	2.8519	1/350
7.011	2.7602	1/362	7.050	2.7755	1/360	7.089	2.7909	1/358	7.128	2.8062	1/356	7.167	2.8216	1/354	7.206	2.8370	1/352	7.245	2.8523	1/350
7.012	2.7606	1/362	7.051	2.7759	1/360	7.090	2.7913	1/358	7.129	2.8066	1/356	7.168	2.8220	1/354	7.207	2.8373	1/352	7.246	2.8527	1/350
7.013	2.7610	1/362	7.052	2.7763	1/360	7.091	2.7917	1/358	7.130	2.8070	1/356	7.169	2.8224	1/354	7.208	2.8377	1/352	7.247	2.8531	1/350
7.014	2.7614	1/362	7.053	2.7767	1/360	7.092	2.7921	1/358	7.131	2.8074	1/356	7.170	2.8228	1/354	7.209	2.8381	1/352	7.248	2.8535	1/350
7.015	2.7618	1/362	7.054	2.7771	1/360	7.093	2.7925	1/358	7.132	2.8078	1/356	7.171	2.8232	1/354	7.210	2.8385	1/352	7.249	2.8539	1/350
7.016	2.7621	1/361	7.055	2.7775	1/359	7.094	2.7929	1/358	7.133	2.8082	1/356	7.172	2.8236	1/354	7.211	2.8389	1/352	7.250	2.8543	1/350
7.017	2.7625	1/361	7.056	2.7779	1/359	7.095	2.7933	1/357	7.134	2.8086	1/355	7.173	2.8240	1/354	7.212	2.8393	1/352	7.251	2.8547	1/350
7.018	2.7629	1/361	7.057	2.7783	1/359	7.096	2.7936	1/357	7.135	2.8090	1/355	7.174	2.8244	1/354	7.213	2.8397	1/352	7.252	2.8551	1/349
7.019	2.7633	1/361	7.058	2.7787	1/359	7.097	2.7940	1/357	7.136	2.8094	1/355	7.175	2.8247	1/353	7.214	2.8401	1/352	7.253	2.8555	1/350
7.020	2.7637	1/361	7.059	2.7791	1/359	7.098	2.7944	1/357	7.137	2.8098	1/355	7.176	2.8251	1/353	7.215	2.8405	1/351	7.254	2.8558	1/350
7.021	2.7641	1/361	7.060	2.7795	1/359	7.099	2.7948	1/357	7.138	2.8102	1/355	7.177	2.8255	1/353	7.216	2.8409	1/351	7.255	2.8562	1/350
7.022	2.7645	1/361	7.061	2.7799	1/359	7.100	2.7952	1/357	7.139	2.8106	1/355	7.178	2.8259	1/353	7.217	2.8413	1/351	7.256	2.8566	1/350
7.023	2.7649	1/361	7.062	2.7803	1/359	7.101	2.7956	1/357	7.140	2.8110	1/355	7.179	2.8263	1/353	7.218	2.8417	1/351	7.257	2.8570	1/349
7.024	2.7653	1/361	7.063	2.7807	1/359	7.102	2.7960	1/357	7.141	2.8114	1/355	7.180	2.8267	1/353	7.219	2.8421	1/351	7.258	2.8574	1/349
7.025	2.7657	1/361	7.064	2.7810	1/359	7.103	2.7964	1/357	7.142	2.8118	1/355	7.181	2.8271	1/353	7.220	2.8425	1/351	7.259	5.8578	1/349
7.026	2.7661	1/361	7.065	2.7814	1/359	7.104	2.7968	1/357	7.143	2.8121	1/355	7.182	2.8275	1/353	7.221	2.8429	1/351	7.260	2.8582	1/349
7.027	2.7665	1/361	7.066	2.7818	1/359	7.105	2.7972	1/357	7.144	2.8125	1/355	7.183	2.8279	1/353	7.222	2.8433	1/351	7.261	2.8586	1/349
7.028	2.7669	1/361	7.067	2.7822	1/359	7.106	2.7976	1/357	7.145	2.8129	1/355	7.184	2.8283	1/353	7.223	2.8436	1/351	7.262	2.8590	1/349
7.029	2.7673	1/361	7.068	2.7826	1/359	7.107	2.7980	1/357	7.146	2.8133	1/355	7.185	2.8287	1/353	7.224	2.8440	1/351	7.263	2.8594	1/349
7.030	2.7677	1/361	7.069	2.7830	1/359	7.108	2.7984	1/357	7.147	2.8137	1/355	7.186	2.8291	1/353	7.225	2.8444	1/351	7.264	2.8598	1/349
7.031	2.7681	1/361	7.070	2.7834	1/359	7.109	2.7988	1/357	7.148	2.8141	1/355	7.187	2.8295	1/353	7.226	2.8448	1/351	7.265	2.8602	1/349
7.032	2.7684	1/361	7.071	2.7838	1/359	7.110	2.7992	1/357	7.149	2.8145	1/355	7.188	2.8299	1/353	7.227	2.8452	1/351	7.266	2.8606	1/349
7.033	2.7688	1/361	7.072	2.7842	1/359	7.111	2.7996	1/357	7.150	2.8149	1/355	7.189	2.8303	1/353	7.228	2.8456	1/351	7.267	2.8610	1/349
7.034	2.7692	1/361	7.073	2.7846	1/359	7.112	2.7999	1/357	7.151	2.8153	1/355	7.190	2.8307	1/353	7.229	2.8460	1/351	7.268	2.8614	1/349
7.035	2.7696	1/361	7.074	2.7850	1/359	7.113	2.8003	1/357	7.152	2.8157	1/355	7.191	2.8310	1/353	7.230	2.8464	1/351	7.269	2.8618	1/349
7.036	2.7700	1/360	7.075	2.7854	1/358	7.114	2.8007	1/356	7.153	2.8161	1/355	7.192	2.8314	1/353	7.231	2.8468	1/351	7.270	2.8621	1/349
7.037	2.7704	1/360	7.076	2.7858	1/358	7.115	2.8011	1/356	7.154	2.8165	1/355	7.193	2.8318	1/353	7.232	2.8472	1/351	7.271	2.8625	1/349
7.038	2.7708	1/360	7.077	2.7862	1/358	7.116	2.8015	1/356	7.155	2.8169	1/354	7.194	2.8322	1/353	7.233	2.8476	1/351	7.272	2.8629	1/349
7.039	2.7712	1/360	7.078	2.7866	1/358	7.117	2.8019	1/356	7.156	2.8173	1/354	7.195	2.8326	1/352	7.234	2.8480	1/351	7.273	2.8633	1/349
7.040	2.7716	1/360	7.079	2.7870	1/358	7.118	2.8023	1/356	7.157	2.8177	1/354	7.196	2.8330	1/352	7.235	2.8484	1/351	7.274	2.8637	1/349
7.041	2.7720	1/360	7.080	2.7873	1/358	7.119	2.8027	1/356	7.158	2.8181	1/354	7.197	2.8334	1/352	7.236	2.8488	1/350	7.275	2.8641	1/349
7.042	2.7724	1/360	7.081	2.7877	1/358	7.120	2.8031	1/356	7.159	2.8184	1/354	7.198	2.8338	1/352	7.237	2.8492	1/350	7.276	2.8645	1/349
7.043	2.7728	1/360	7.082	2.7881	1/358	7.121	2.8035	1/356	7.160	2.8188	1/354	7.199	2.8342	1/352	7.238	2.8496	1/350	7.277	2.8649	1/349
7.044	2.7732	1/360	7.083	2.7885	1/358	7.122	2.8039	1/356	7.161	2.8192	1/354	7.200	2.8346	1/352	7.239	2.8499	1/350	7.278	2.8653	1/349

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
7.279	2.8657	1/349	7.318	2.8810	1/347	7.357	2.8963	1/345	7.396	2.9118	1/343	7.435	2.9271	1/341	7.474	2.9425	1/339	7.513	2.9578	1/338
7.280	2.8661	1/348	7.319	2.8814	1/346	7.358	2.8968	1/345	7.397	2.9121	1/343	7.436	2.9275	1/341	7.475	2.9429	1/339	7.514	2.9582	1/337
7.281	2.8665	1/348	7.320	2.8818	1/346	7.359	2.8972	1/345	7.398	2.9125	1/343	7.437	2.9275	1/341	7.476	2.9433	1/339	7.515	2.9586	1/337
7.282	2.8669	1/348	7.321	2.8822	1/346	7.360	2.8976	1/345	7.399	2.9129	1/343	7.438	2.9283	1/341	7.477	2.9436	1/339	7.516	2.9590	1/337
7.283	2.8673	1/348	7.322	2.8826	1/346	7.361	2.8980	1/345	7.400	2.9133	1/343	7.439	2.9287	1/341	7.478	2.9440	1/339	7.517	2.9594	1/337
7.284	2.8677	1/348	7.323	2.8830	1/346	7.362	2.8984	1/344	7.401	2.9137	1/343	7.440	2.9291	1/341	7.479	2.9444	1/339	7.518	2.9598	1/337
7.285	2.8681	1/348	7.324	2.8834	1/346	7.363	2.8988	1/344	7.402	2.9141	1/343	7.441	2.9295	1/341	7.480	2.9448	1/339	7.519	2.9602	1/337
7.286	2.8684	1/348	7.325	2.8838	1/346	7.364	2.8992	1/344	7.403	2.9145	1/343	7.442	2.9299	1/341	7.481	2.9452	1/339	7.520	2.9606	1/337
7.287	2.8688	1/348	7.326	2.8842	1/346	7.365	2.8996	1/344	7.404	2.9149	1/343	7.443	2.9303	1/341	7.482	2.9456	1/339	7.521	2.9610	1/337
7.288	2.8692	1/348	7.327	2.8846	1/346	7.366	2.9000	1/344	7.405	2.9153	1/342	7.444	2.9307	1/341	7.483	2.9460	1/339	7.522	2.9614	1/337
7.289	2.8696	1/348	7.328	2.8850	1/346	7.367	2.9003	1/344	7.406	2.9157	1/342	7.445	2.9310	1/341	7.484	2.9464	1/339	7.523	2.9618	1/337
7.290	2.8700	1/348	7.329	2.8854	1/346	7.368	2.9007	1/344	7.407	2.9161	1/342	7.446	2.9314	1/341	7.485	2.9468	1/339	7.524	2.9621	1/337
7.291	2.8704	1/348	7.330	2.8858	1/346	7.369	2.9011	1/344	7.408	2.9165	1/342	7.447	2.9318	1/341	7.486	2.9472	1/339	7.525	2.9625	1/337
7.292	2.8708	1/348	7.331	2.8862	1/346	7.370	2.9015	1/344	7.409	2.9169	1/342	7.448	2.9322	1/340	7.487	2.9476	1/339	7.526	2.9629	1/337
7.293	2.8712	1/348	7.332	2.8866	1/346	7.371	2.9019	1/344	7.410	2.9173	1/342	7.449	2.9326	1/340	7.488	2.9480	1/339	7.527	2.9633	1/337
7.294	2.8716	1/348	7.333	2.8870	1/346	7.372	2.9023	1/344	7.411	2.9177	1/342	7.450	2.9330	1/340	7.489	2.9484	1/339	7.528	2.9637	1/337
7.295	2.8720	1/348	7.334	2.8873	1/346	7.373	2.9027	1/344	7.412	2.9181	1/342	7.451	2.9334	1/340	7.490	2.9488	1/339	7.529	2.9641	1/337
7.296	2.8724	1/348	7.335	2.8877	1/346	7.374	2.9031	1/344	7.413	2.9184	1/342	7.452	2.9338	1/340	7.491	2.9492	1/339	7.530	2.9645	1/337
7.297	2.8728	1/348	7.336	2.8881	1/346	7.375	2.9035	1/344	7.414	2.9188	1/342	7.453	2.9342	1/340	7.492	2.9496	1/339	7.531	2.9649	1/337
7.298	2.8732	1/347	7.337	2.8885	1/346	7.376	2.9039	1/344	7.415	2.9192	1/342	7.454	2.9346	1/340	7.493	2.9499	1/338	7.532	2.9653	1/337
7.299	2.8736	1/347	7.338	2.8889	1/346	7.377	2.9043	1/344	7.416	2.9196	1/342	7.455	2.9350	1/340	7.494	2.9503	1/338	7.533	2.9657	1/337
7.300	2.8740	1/347	7.339	2.8893	1/346	7.378	2.9047	1/344	7.417	2.9200	1/342	7.456	2.9354	1/340	7.495	2.9507	1/338	7.534	2.9661	1/337
7.301	2.8743	1/347	7.340	2.8897	1/346	7.379	2.9051	1/344	7.418	2.9204	1/342	7.457	2.9358	1/340	7.496	2.9511	1/338	7.535	2.9665	1/337
7.302	2.8747	1/347	7.341	2.8901	1/345	7.380	2.9055	1/344	7.419	2.9208	1/342	7.458	2.9362	1/340	7.497	2.9515	1/338	7.536	2.9669	1/337
7.303	2.8751	1/347	7.342	2.8905	1/345	7.381	2.9058	1/344	7.420	2.9212	1/342	7.459	2.9366	1/340	7.498	2.9519	1/338	7.537	2.9673	1/337
7.304	2.8755	1/347	7.343	2.8909	1/345	7.382	2.9062	1/344	7.421	2.9216	1/342	7.460	2.9370	1/340	7.499	2.9523	1/338	7.538	2.9677	1/337
7.305	2.8759	1/347	7.344	2.8913	1/345	7.383	2.9066	1/343	7.422	2.9220	1/342	7.461	2.9374	1/340	7.500	2.9527	1/338	7.539	2.9681	1/336
7.306	2.8763	1/347	7.345	2.8917	1/345	7.384	2.9070	1/343	7.423	2.9224	1/342	7.462	2.9377	1/340	7.501	2.9531	1/338	7.540	2.9684	1/336
7.307	2.8767	1/347	7.346	2.8921	1/345	7.385	2.9074	1/343	7.424	2.9228	1/342	7.463	2.9381	1/340	7.502	2.9535	1/338	7.541	2.9688	1/336
7.308	2.8771	1/347	7.347	2.8925	1/345	7.386	2.9078	1/343	7.425	2.9232	1/342	7.464	2.9385	1/340	7.503	2.9539	1/338	7.542	2.9692	1/336
7.309	2.8775	1/347	7.348	2.8929	1/345	7.387	2.9082	1/343	7.426	2.9236	1/341	7.465	2.9389	1/340	7.504	2.9543	1/338	7.543	2.9696	1/336
7.310	2.8779	1/347	7.349	2.8933	1/345	7.388	2.9086	1/343	7.427	2.9240	1/341	7.466	2.9393	1/340	7.505	2.9547	1/338	7.544	2.9700	1/336
7.311	2.8783	1/347	7.350	2.8936	1/345	7.389	2.9090	1/343	7.428	2.9244	1/341	7.467	2.9397	1/340	7.506	2.9551	1/338	7.545	2.9704	1/336
7.312	2.8787	1/347	7.351	2.8940	1/345	7.390	2.9094	1/343	7.429	2.9247	1/341	7.468	2.9401	1/340	7.507	2.9555	1/338	7.546	2.9708	1/336
7.313	2.8791	1/347	7.352	2.8944	1/345	7.391	2.9098	1/343	7.430	2.9251	1/341	7.469	2.9405	1/340	7.508	2.9558	1/338	7.547	2.9712	1/336
7.314	2.8795	1/347	7.353	2.8948	1/345	7.392	2.9102	1/343	7.431	2.9255	1/341	7.470	2.9409	1/340	7.509	2.9562	1/338	7.548	2.9716	1/336
7.315	2.8799	1/347	7.354	2.8952	1/345	7.393	2.9106	1/343	7.432	2.9259	1/341	7.471	2.9413	1/339	7.510	2.9566	1/338	7.549	2.9720	1/336
7.316	2.8803	1/347	7.355	2.8956	1/345	7.394	2.9110	1/343	7.433	2.9263	1/341	7.472	2.9417	1/339	7.511	2.9570	1/338	7.550	2.9724	1/336
7.317	2.8807	1/347	7.356	2.8960	1/345	7.395	2.9114	1/343	7.434	2.9267	1/341	7.473	2.9421	1/339	7.512	2.9574	1/338	7.551	2.9728	1/336

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
7.552	2.9732	1/336	7.591	2.9885	1/334	7.630	3.0039	1/332	7.669	3.0192	1/331	7.708	3.0346	1/329	7.747	3.0490	1/327	7.786	3.0653	1/326
7.553	2.9736	1/336	7.592	2.9889	1/334	7.631	3.0043	1/332	7.670	3.0196	1/331	7.709	3.0350	1/329	7.748	3.0503	1/327	7.787	3.0657	1/326
7.554	2.9740	1/336	7.593	2.9893	1/334	7.632	3.0047	1/332	7.671	3.0200	1/331	7.710	3.0354	1/329	7.749	3.0507	1/327	7.788	3.0661	1/326
7.555	2.9744	1/336	7.594	2.9897	1/334	7.633	3.0051	1/332	7.672	3.0204	1/331	7.711	3.0358	1/329	7.750	3.0511	1/327	7.789	3.0665	1/325
7.556	2.9747	1/336	7.595	2.9901	1/334	7.634	3.0055	1/332	7.673	3.0208	1/330	7.712	3.0362	1/329	7.751	3.0515	1/327	7.790	3.0669	1/325
7.557	2.9751	1/336	7.596	2.9905	1/334	7.635	3.0059	1/332	7.674	3.0212	1/330	7.713	3.0366	1/329	7.752	3.0519	1/327	7.791	3.0673	1/325
7.558	2.9755	1/336	7.597	2.9909	1/334	7.636	3.0062	1/332	7.675	3.0216	1/330	7.714	2.0370	1/329	7.753	3.0523	1/327	7.792	3.0677	1/325
7.559	2.9759	1/335	7.598	2.9913	1/334	7.637	3.0066	1/332	7.676	3.0220	1/330	7.715	3.0373	1/329	7.754	3.0527	1/327	7.793	3.0681	1/325
7.560	2.9763	1/335	7.599	2.9917	1/334	7.638	3.0070	1/332	7.677	3.0224	1/330	7.716	3.0377	1/329	7.755	3.0531	1/327	7.794	3.0684	1/325
7.561	2.9767	1/335	7.600	2.9921	1/334	7.639	3.0074	1/332	7.678	3.0228	1/330	7.717	3.0381	1/329	7.756	3.0535	1/327	7.795	3.0688	1/325
7.562	2.9771	1/335	7.601	2.9925	1/334	7.640	3.0078	1/332	7.679	3.0232	1/330	7.718	3.0385	1/329	7.757	3.0539	1/327	7.796	3.0692	1/325
7.563	2.9775	1/335	7.602	2.9929	1/334	7.641	3.0082	1/332	7.680	3.0236	1/330	7.719	3.0389	1/329	7.758	3.0543	1/327	7.797	3.0696	1/325
7.564	2.9779	1/335	7.603	2.9933	1/333	7.642	3.0086	1/332	7.681	3.0240	1/330	7.720	3.0393	1/328	7.759	3.0547	1/327	7.798	3.0700	1/325
7.565	2.9783	1/335	7.604	2.9936	1/333	7.643	3.0090	1/332	7.682	3.0244	1/330	7.721	3.0397	1/328	7.760	3.0551	1/327	7.799	3.0704	1/325
7.566	2.9787	1/335	7.605	2.9940	1/333	7.644	3.0094	1/332	7.683	3.0247	1/330	7.722	3.0401	1/328	7.761	3.0555	1/327	7.800	3.0708	1/325
7.567	2.9791	1/335	7.606	2.9944	1/333	7.645	3.0098	1/332	7.684	3.0251	1/330	7.723	3.0405	1/328	7.762	3.0558	1/327	7.801	3.0712	1/325
7.568	2.9795	1/335	7.607	2.9948	1/333	7.646	3.0102	1/332	7.685	3.0255	1/330	7.724	3.0409	1/328	7.763	3.0562	1/327	7.802	3.0716	1/325
7.569	2.9799	1/335	7.608	2.9952	1/333	7.647	3.0106	1/332	7.686	3.0259	1/330	7.725	3.0413	1/328	7.764	3.0566	1/327	7.803	3.0720	1/325
7.570	2.9803	1/335	7.609	2.9956	1/333	7.648	3.0110	1/332	7.687	3.0263	1/330	7.726	3.0417	1/328	7.765	3.0570	1/327	7.804	3.0726	1/325
7.571	2.9807	1/335	7.610	2.9960	1/333	7.649	3.0114	1/332	7.688	3.0267	1/330	7.727	3.0421	1/328	7.766	3.0574	1/327	7.805	3.0728	1/325
7.572	2.9810	1/335	7.611	2.9964	1/333	7.650	3.0118	1/331	7.689	3.0271	1/330	7.728	3.0425	1/328	7.767	3.0578	1/326	7.806	3.0732	1/325
7.573	2.9814	1/335	7.612	2.9968	1/333	7.651	3.0121	1/331	7.690	3.0275	1/330	7.729	3.0429	1/328	7.768	3.0582	1/326	7.807	3.0736	1/325
7.574	2.9818	1/335	7.613	2.9972	1/333	7.652	3.0125	1/331	7.691	3.0279	1/330	7.730	3.0433	1/328	7.769	3.0586	1/326	7.808	3.0740	1/325
7.575	2.9822	1/335	7.614	2.9976	1/333	7.653	3.0129	1/331	7.692	3.0283	1/330	7.731	3.0436	1/328	7.770	3.0590	1/326	7.809	3.0744	1/325
7.576	2.9826	1/335	7.615	2.9980	1/333	7.654	3.0133	1/331	7.693	3.0287	1/330	7.732	3.0440	1/328	7.771	3.0594	1/326	7.810	3.0747	1/325
7.577	2.9830	1/335	7.616	2.9984	1/333	7.655	3.0137	1/331	7.694	2.0291	1/330	7.733	3.0444	1/328	7.772	3.0598	1/326	7.811	3.0751	1/325
7.578	2.9834	1/335	7.617	2.9988	1/333	7.656	3.0141	1/331	7.695	3.0295	1/330	7.734	3.0448	1/328	7.773	3.0602	1/326	7.812	3.0755	1/325
7.579	2.9838	1/335	7.618	2.9992	1/333	7.657	3.0145	1/331	7.696	3.0299	1/330	7.735	3.0452	1/328	7.774	3.0606	1/326	7.813	3.0759	1/325
7.580	2.9842	1/335	7.619	2.9996	1/333	7.658	3.0149	1/331	7.697	3.0303	1/329	7.736	3.0456	1/328	7.775	3.0610	1/326	7.814	3.0763	1/325
7.581	2.9846	1/334	7.620	2.9999	1/333	7.659	3.0153	1/331	7.698	3.0307	1/329	7.737	3.0460	1/328	7.776	3.0614	1/326	7.815	3.0767	1/324
7.582	2.9850	1/334	7.621	3.0003	1/333	7.660	3,0157	1/331	7.699	3.0310	1/329	7.738	3.0464	1/328	7.777	3.0618	1/326	7.816	3.0771	1/324
7.583	2.9854	1/334	7.622	3.0007	1/333	7.661	3.0161	1/331	7.700	3.0314	1/329	7.739	3.0468	1/328	7.778	3.0621	1/326	7.817	3.0775	1/324
7.584	2.9858	1/334	7.623	3.0011	1/333	7.662	3.0165	1/331	7.701	3.0318	1/329	7.740	3.0472	1/328	7.779	3.0625	1/326	7.818	3.0779	1/324
7.585	2.9862	1/334	7.624	3.0015	1/333	7.663	3.0169	1/331	7.702	3.0322	1/329	7.741	3.0476	1/328	7.780	3.0629	1/326	7.819	3.0783	1/324
7.586	2.9866	1/334	7.625	3.0019	1/333	7.664	3.0173	1/331	7.703	3.0326	1/329	7.742	3.0480	1/328	7.781	3.0633	1/326	7.820	3.0787	1/324
7.587	2.9870	1/334	7.626	3.0023	1/333	7.665	3.0177	1/331	7.704	3.0330	1/329	7.743	3.0484	1/327	7.782	3.0637	1/326	7.821	3.0791	1/324
7.588	2.9873	1/334	7.627	3.0027	1/332	7.666	3.0181	1/331	7.705	3.0334	1/329	7.744	3.0488	1/327	7.783	3.0641	1/326	7.822	3.0795	1/324
7.589	2.9877	1/334	7.628	3.0031	1/332	7.667	3.0184	1/331	7.706	3.0338	1/329	7.745	3.0492	1/327	7.784	3.0645	1/326	7.823	3.0799	1/324
7.590	2.9881	1/334	7.629	3.0035	1/332	7.668	3.0188	1/331	7.707	3.0342	1/329	7.746	3.0496	1/327	7.785	3.0649	1/326	7.824	3.0803	1/324

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
7.825	3.0807	1/324	7.864	3.0960	1/322	7.903	3.1114	1/321	7.942	3.1267	1/319	7.981	3.1421	1/318	8.020	3.1574	1/316	8.059	3.1728	1/315
7.826	3.0810	1/324	7.865	3.0964	1/322	7.904	3.1118	1/321	7.943	3.1271	1/319	7.982	3.1425	1/318	8.021	3.1578	1/316	8.060	3.1732	1/315
7.827	3.0814	1/324	7.866	3.0968	1/322	7.905	3.1121	1/321	7.944	3.1275	1/319	7.983	3.1429	1/318	8.022	3.1582	1/316	8.061	3.1736	1/315
7.828	3.0818	1/324	7.867	3.0972	1/322	7.906	3.1125	1/321	7.945	3.1279	1/319	7.984	3.1433	1/318	8.023	3.1586	1/316	8.062	3.1740	1/315
7.829	3.0822	1/324	7.868	3.0976	1/322	7.907	3.1129	1/321	7.946	3.1283	1/319	7.985	3.1436	1/318	8.024	3.1590	1/316	8.063	3.1744	1/315
7.830	3.0826	1/324	7.869	3.0980	1/322	7.908	3.1133	1/321	7.947	3.1287	1/319	7.986	3.1440	1/318	8.025	3.1594	1/316	8.064	3.1747	1/314
7.831	3.0830	1/324	7.870	3.0984	1/322	7.909	3.1137	1/321	7.948	3.1291	1/319	7.987	3.1444	1/317	8.026	3.1598	1/316	8.065	3.1751	1/314
7.832	3.0834	1/324	7.871	3.0988	1/322	7.910	3.1141	1/321	7.949	3.1295	1/319	7.988	3.1448	1/317	8.027	3.1602	1/316	8.066	3.1755	1/314
7.833	3.0838	1/324	7.872	3.0992	1/322	7.911	3.1145	1/321	7.950	3.1299	1/319	7.989	3.1452	1/317	8.028	3.1606	1/316	8.067	3.1759	1/314
7.834	3.0842	1/324	7.873	3.0996	1/322	7.912	3.1149	1/320	7.951	3.1303	1/319	7.990	3.1456	1/317	8.029	3.1610	1/316	8.068	3.1763	1/314
7.835	3.0846	1/324	7.874	3.1000	1/322	7.913	3.1153	1/320	7.952	3.1307	1/319	7.991	3.1460	1/317	8.030	3.1614	1/316	8.069	3.1767	1/314
7.836	3.0850	1/324	7.875	3.1003	1/322	7.914	3.1157	1/320	7.953	3.1310	1/319	7.992	3.1464	1/317	8.031	3.1618	1/316	8.070	3.1771	1/314
7.837	3.0854	1/324	7.876	3.1007	1/322	7.915	3.1161	1/320	7.954	3.1314	1/319	7.993	3.1468	1/317	8.032	3.1621	1/316	8.071	3.1775	1/314
7.838	3.0858	1/324	7.877	3.1011	1/322	7.916	3.1165	1/320	7.955	3.1317	1/319	7.994	3.1472	1/317	8.033	3.1625	1/316	8.072	3.1779	1/314
7.839	3.0862	1/323	7.878	3.1015	1/322	7.917	3.1169	1/320	7.956	3.1321	1/319	7.995	3.1476	1/317	8.034	3.1629	1/316	8.073	3.1783	1/314
7.840	3.0866	1/323	7.879	3.1019	1/322	7.918	3.1173	1/320	7.957	3.1325	1/319	7.996	3.1480	1/317	8.035	3.1633	1/316	8.074	3.1787	1/314
7.841	3.0870	1/323	7.880	3.1023	1/322	7.919	3.1177	1/320	7.958	3.1329	1/319	7.997	3.1484	1/317	8.036	3.1637	1/316	8.075	3.1791	1/314
7.842	3.0873	1/323	7.881	3.1027	1/322	7.920	3.1181	1/320	7.959	3.1333	1/319	7.998	3.1488	1/317	8.037	3.1641	1/315	8.076	3.1795	1/314
7.843	3.0877	1/323	7.882	3.1031	1/322	7.921	3.1184	1/320	7.960	3.1337	1/319	7.999	3.1492	1/317	8.038	3.1645	1/315	8.077	3.1799	1/314
7.844	3.0881	1/323	7.883	3.1035	1/322	7.922	3.1188	1/320	7.961	3.1341	1/319	8.000	3.1496	1/317	8.039	3.1649	1/315	8.078	3.1803	1/314
7.845	3.0885	1/323	7.884	3.1039	1/322	7.923	3.1192	1/320	7.962	3.1345	1/318	8.001	3.1499	1/317	8.040	3.1653	1/315	8.079	3.1807	1/314
7.846	3.0889	1/323	7.885	3.1043	1/322	7.924	3.1196	1/320	7.963	3.1349	1/318	8.002	3.1503	1/317	8.041	3.1657	1/315	8.080	3.1810	1/314
7.847	3.0893	1/323	7.886	3.1047	1/322	7.925	3.1200	1/320	7.964	3.1353	1/318	8.003	3.1507	1/317	8.042	3.1661	1/315	8.081	3.1814	1/314
7.848	3.0897	1/323	7.887	3.1051	1/322	7.926	3.1204	1/320	7.965	3.1358	1/318	8.004	3.1511	1/317	8.043	3.1665	1/315	8.082	3.1818	1/314
7.849	3.0901	1/323	7.888	3.1055	1/321	7.927	3.1208	1/320	7.966	3.1362	1/318	8.005	3.1515	1/317	8.044	3.1669	1/315	8.083	3.1822	1/314
7.850	3.0905	1/323	7.889	3.1058	1/321	7.928	3.1212	1/320	7.967	3.1366	1/318	8.006	3.1519	1/317	8.045	3.1673	1/315	8.084	3.1826	1/314
7.851	3.0909	1/323	7.890	3.1062	1/321	7.929	3.1216	1/320	7.968	3.1370	1/318	8.007	3.1523	1/317	8.046	3.1677	1/315	8.085	3.1830	1/314
7.852	3.0913	1/323	7.891	3.1066	1/321	7.930	3.1220	1/320	7.969	3.1373	1/318	8.008	3.1527	1/317	8.047	3.1681	1/315	8.086	3.1834	1/314
7.853	3.0917	1/323	7.892	3.1070	1/321	7.931	3.1224	1/320	7.970	3.1377	1/318	8.009	3.1531	1/317	8.048	3.1684	1/315	8.087	3.1838	1/314
7.854	3.0921	1/323	7.893	3.1074	1/321	7.932	3.1228	1/320	7.971	3.1381	1/318	8.010	3.1535	1/317	8.049	3.1688	1/315	8.088	3.1842	1/314
7.855	3.0925	1/323	7.894	3.1078	1/321	7.933	3.1232	1/320	7.972	3.1385	1/318	8.011	3.1539	1/317	8.050	3.1692	1/315	8.089	3.1846	1/314
7.856	3.0929	1/323	7.895	3.1082	1/321	7.934	3.1236	1/320	7.973	3.1389	1/318	8.012	3.1543	1/316	8.051	3.1696	1/315	8.090	3.1850	1/313
7.857	3.0933	1/323	7.896	3.1086	1/321	7.935	3.1240	1/320	7.974	3.1393	1/318	8.013	3.1547	1/316	8.052	3.1700	1/315	8.091	3.1854	1/313
7.858	3.0936	1/323	7.897	3.1090	1/321	7.936	3.1244	1/320	7.975	3.1397	1/318	8.014	3.1551	1/316	8.053	3.1704	1/315	8.092	3.1858	1/313
7.859	3.0940	1/323	7.898	3.1094	1/321	7.937	3.1247	1/319	7.976	3.1401	1/318	8.015	3.1555	1/316	8.054	3.1708	1/315	8.093	3.1862	1/313
7.860	3.0944	1/323	7.899	3.1098	1/321	7.938	3.1251	1/319	7.977	3.1405	1/318	8.016	3.1559	1/316	8.055	3.1712	1/315	8.094	3.1866	1/313
7.861	3.0948	1/323	7.900	3.1102	1/321	7.939	3.1255	1/319	7.978	3.1409	1/318	8.017	3.1562	1/316	8.056	3.1716	1/315	8.095	3.1870	1/313
7.862	3.0952	1/323	7.901	3.1106	1/321	7.940	3.1259	1/319	7.979	3.1413	1/318	8.018	3.1566	1/316	8.057	3.1720	1/315	8.096	3.1873	1/313
7.863	3.0956	1/322	7.902	3.1110	1/321	7.941	3.1263	1/319	7.980	3.1417	1/318	8.019	3.1570	1/316	8.058	3.1724	1/315	8.097	3.1877	1/313

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
8.098	3.1881	1/313	8.137	3.2035	1/312	8.176	3.2188	1/310	8.215	3.2342	1/309	8.254	3.2495	1/307	8.293	3.2649	1/306	8.332	3.2803	1/304
8.099	3.1885	1/313	8.138	3.2039	1/312	8.177	3.2192	1/310	8.216	3.2346	1/309	8.255	3.2499	1/307	8.294	3.2653	1/306	8.333	3.2807	1/304
8.100	3.1889	1/313	8.139	3.2043	1/312	8.178	3.2196	1/310	8.217	3.2350	1/309	8.256	3.2503	1/307	8.295	3.2657	1/306	8.334	3.2810	1/304
8.101	3.1893	1/313	8.140	3.2047	1/312	8.179	3.2200	1/310	8.218	3.2354	1/309	8.257	3.2507	1/307	8.296	3.2661	1/306	8.335	3.2814	1/304
8.102	3.1897	1/313	8.141	3.2051	1/311	8.180	3.2204	1/310	8.219	3.2358	1/309	8.258	3.2511	1/307	8.297	3.2665	1/306	8.336	3.2818	1/304
8.103	3.1901	1/313	8.142	3.2055	1/311	8.181	3.2208	1/310	8.220	3.2362	1/308	8.259	3.2515	1/307	8.298	3.2669	1/306	8.337	3.2822	1/304
8.104	3.1905	1/313	8.143	3.2058	1/311	8.182	3.2212	1/310	8.221	3.2366	1/308	8.260	3.2519	1/307	8.299	3.2673	1/306	8.338	3.2826	1/304
8.105	3.1909	1/313	8.144	3.2062	1/311	8.183	3.2216	1/310	8.222	3.2370	1/308	8.261	3.2523	1/307	8.300	3.2677	1/305	8.339	3.2830	1/304
8.106	2.1913	1/313	8.145	3.2066	1/311	8.184	3.2220	1/310	8.223	3.2373	1/308	8.262	3.2527	1/307	8.301	3.2681	1/305	8.340	3.2834	1/304
8.107	3.1917	1/313	8.146	3.2070	1/311	8.185	3.2224	1/310	8.224	3.2377	1/308	8.263	3.2531	1/307	8.302	3.2684	1/305	8.341	3.2838	1/304
8.108	3.1921	1/313	8.147	3.2074	1/311	8.186	3.2228	1/310	8.225	3.2381	1/308	8.264	3.2535	1/307	8.303	3.2688	1/305	8.342	3.2842	1/304
8.109	3.1925	1/313	8.148	3.2078	1/311	8.187	3.2232	1/310	8.226	3.2385	1/308	8.265	3.2539	1/307	8.304	3.2692	1/305	8.343	3.2846	1/304
8.110	3.1929	1/313	8.149	3.2082	1/311	8.188	3.2236	1/310	8.227	3.2389	1/308	8.266	3.2543	1/307	8.305	3.2696	1/305	8.344	3.2850	1/304
8.111	3.1933	1/313	8.150	3.2086	1/311	8.189	3.2240	1/310	8.228	3.2393	1/308	8.267	3.2547	1/307	8.306	3.2700	1/305	8.345	3.2854	1/304
8.112	3.1936	1/313	8.151	3.2090	1/311	8.190	3.2244	1/310	8.229	3.2397	1/308	8.268	3.2551	1/307	8.307	3.2704	1/305	8.346	3.2858	1/304
8.113	3.1940	1/313	8.152	3.2094	1/311	8.191	3.2247	1/310	8.230	3.2401	1/308	8.269	3.2555	1/307	8.308	3.2708	1/305	8.347	3.2862	1/304
8.114	3.1944	1/312	8.153	3.2098	1/311	8.192	3.2251	1/310	8.231	3.2405	1/308	8.270	3.2558	1/307	8.309	3.2712	1/305	8.348	3.2866	1/304
8.115	3.1948	1/312	8.154	3.2102	1/311	8.193	3.2255	1/309	8.232	3.2409	1/308	8.271	3.2562	1/307	8.310	3.2716	1/305	8.349	3.2870	1/304
8.116	3.1952	1/312	8.155	3.2106	1/311	8.194	3.2259	1/309	8.233	3.2413	1/308	8.272	3.2566	1/307	8.311	3.2720	1/305	8.350	3.2873	1/304
8.117	3.1956	1/312	8.156	3.2110	1/311	8.195	3.2263	1/309	8.234	3.2417	1/308	8.273	3.2570	1/306	8.312	3.2724	1/305	8.351	3.2877	1/304
8.118	3.1960	1/312	8.157	3.2114	1/311	8.196	3.2267	1/309	8.235	3.2421	1/308	8.274	3.2574	1/306	8.313	3.2728	1/305	8.352	3.2881	1/304
8.119	3.1964	1/312	8.158	3.2118	1/311	8.197	3.2271	1/309	8.236	3.2425	1/308	8.275	3.2578	1/306	8.314	3.2732	1/305	8.353	3.2885	1/304
8.120	3.1968	1/312	8.159	3.2121	1/311	8.198	3.2275	1/309	8.237	3.2429	1/308	8.276	3.2582	1/306	8.315	3.2736	1/305	8.354	3.2889	1/304
8.121	3.1972	1/312	8.160	3.2125	1/311	8.199	3.2279	1/309	8.238	3.2433	1/308	8.277	3.2586	1/306	8.316	3.2740	1/305	8.355	3.2893	1/303
8.122	3.1976	1/312	8.161	3.2129	1/311	8.200	3.2283	1/309	8.239	3.2436	1/308	8.278	3.2590	1/306	8.317	3.2744	1/305	8.356	3.2897	1/303
8.123	3.1980	1/312	8.162	3.2133	1/311	8.201	3.2287	1/309	8.240	3.2440	1/308	8.279	3.2594	1/306	8.318	3.2747	1/305	8.357	3.2901	1/303
8.124	3.1984	1/312	8.163	3.2137	1/311	8.202	3.2291	1/309	8.241	3.2444	1/308	8.280	3.2598	1/306	8.319	3.2751	1/305	8.358	3.2905	1/303
8.125	3.1988	1/312	8.164	3.2141	1/311	8.203	3.2295	1/309	8.242	3.2448	1/308	8.281	3.2602	1/306	8.320	3.2755	1/305	8.359	3.2909	1/303
8.126	3.1992	1/312	8.165	3.2145	1/311	8.204	3.2299	1/309	8.243	3.2452	1/308	8.282	3.2606	1/306	8.321	3.2759	1/305	8.360	3.2913	1/303
8.127	3.1995	1/312	8.166	3.2149	1/311	8.205	3.2303	1/309	8.244	3.2456	1/308	8.283	3.2610	1/306	8.322	3.2763	1/305	8.361	3.2917	1/303
8.128	3.1999	1/312	8.167	3.2153	1/310	8.206	3.2307	1/309	8.245	3.2460	1/308	8.284	3.2614	1/306	8.323	3.2767	1/305	8.362	3.2921	1/303
8.129	3.2003	1/312	8.168	3.2157	1/310	8.207	3.2310	1/309	8.246	3.2464	1/307	8.285	3.2618	1/306	8.324	3.2771	1/305	8.363	3.2925	1/303
8.130	3.2007	1/312	8.169	3.2161	1/310	8.208	3.2314	1/309	8.247	3.2468	1/307	8.286	3.2621	1/305	8.325	3.2775	1/305	8.364	3.2929	1/303
8.131	3.2011	1/312	8.170	3.2165	1/310	8.209	3.2318	1/309	8.248	3.2472	1/307	8.287	3.2625	1/306	8.326	3.2779	1/305	8.365	3.2933	1/303
8.132	3.2015	1/312	8.171	3.2169	1/310	8.210	3.2322	1/309	8.249	3.2476	1/307	8.288	3.2629	1/306	8.327	3.2783	1/304	8.366	3.2936	1/303
8.133	3.2019	1/312	8.172	3.2173	1/310	8.211	3.2326	1/309	8.250	3.2480	1/307	8.289	3.2633	1/306	8.328	3.2787	1/304	8.367	3.2940	1/303
8.134	3.2023	1/312	8.173	3.2177	1/310	8.212	3.2330	1/309	8.251	3.2484	1/307	8.290	3.2637	1/306	8.329	3.2791	1/304	8.368	3.2944	1/303
8.135	3.2027	1/312	8.174	3.2181	1/310	8.213	3.2334	1/309	8.252	3.2488	1/307	8.291	3.2641	1/306	8.330	3.2795	1/304	8.369	3.2948	1/303
[illegible]	3.2031	1/312	8.175	3.2184	1/310	8.214	3.2338	1/309	8.253	3.2492	1/307	8.292	3.2645	1/306	8.331	3.2799	1/304	8.370	3.2952	1/303

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
8.371	3.2956	1/303	8.410	3.3110	1/301	8.449	3.3263	1/300	8.488	3.3417	1/299	8.527	3.3570	1/297	8.566	3.3724	1/296	[illegible]	3.3877	1/295
8.372	3.2960	1/303	8.411	3.3114	1/301	8.450	[illegible]	1/300	8.489	3.3421	1/299	8.528	3.3574	1/297	8.567	[illegible]	1/296	[illegible]	[illegible]	1/295
8.373	3.2964	1/303	8.412	3.3118	1/301	8.451	3.3271	1/300	8.490	3.3425	1/299	8.529	3.3578	1/297	[illegible]	3.3732	1/296	8.607	[illegible]	1/295
8.374	3.2968	1/303	8.413	3.3121	1/301	8.452	3.3275	1/300	8.491	3.3429	1/299	8.530	3.3582	1/297	8.569	[illegible]	1/296	8.608	3.3889	1/295
8.375	3.2972	1/303	8.414	3.3125	1/301	[illegible]	3.3279	1/300	8.492	3.3433	1/299	[illegible]	3.3586	1/297	8.570	3.3740	1/296	8.609	3.3893	1/295
8.376	3.2976	1/303	8.415	3.3129	1/301	8.454	3.3283	1/300	8.493	3.3436	1/299	3.592	3.3590	1/297	8.571	3.3744	1/296	8.610	3.3897	1/295
8.377	3.2980	1/303	8.416	3.3133	1/301	8.455	3.3287	1/300	[illegible]	3.3440	1/298	[illegible]	3.3594	1/297	[illegible]	3.3747	1/296	8.611	[illegible]	1/295
8.378	3.2984	1/303	8.417	3.3137	1/301	8.456	3.3291	1/300	8.495	3.3444	1/298	[illegible]	3.3598	1/297	[illegible]	3.3751	1/296	8.612	3.3905	1/295
8.379	3.2988	1/303	8.418	3.3141	1/301	8.457	3.3295	1/300	[illegible]	3.3448	1/298	[illegible]	3.3602	1/297	8.574	3.3755	1/296	[illegible]	3.3909	1/295
8.380	3.2992	1/303	8.419	3.3145	1/301	8.458	3.3299	1/300	8.497	[illegible]	1/298	8.596	3.3606	1/297	8.575	3.3759	1/296	[illegible]	3.3913	1/295
8.381	3.2995	1/303	8.420	3.3149	1/301	8.459	3.3303	1/300	[illegible]	3.3456	1/298	[illegible]	3.3610	1/297	8.576	3.3763	1/296	[illegible]	3.3917	1/295
8.382	3.2999	1/302	8.421	3.3153	1/301	8.460	[illegible]	1/300	[illegible]	3.3460	1/298	[illegible]	3.3614	1/297	8.577	3.3767	1/296	8.616	3.3921	1/295
8.383	3.3003	1/302	8.422	3.3157	1/301	8.461	3.3310	1/300	[illegible]	3.3464	1/298	8.539	[illegible]	1/297	8.578	3.3771	1/296	[illegible]	[illegible]	1/295
8.384	3.3007	1/302	8.423	3.3161	1/301	[illegible]	3.3314	1/300	8.501	3.3468	1/298	8.540	3.3621	1/297	8.579	3.3775	1/296	[illegible]	3.3929	1/295
8.385	3.3011	1/302	8.424	3.3165	1/301	[illegible]	3.3318	1/300	8.502	3.3472	1/298	8.541	[illegible]	1/297	[illegible]	3.3779	1/296	[illegible]	3.3933	1/295
8.386	3.3015	1/302	8.425	3.3169	1/301	[illegible]	3.3322	1/300	[illegible]	[illegible]	1/298	[illegible]	3.3629	1/297	[illegible]	3.3783	1/295	[illegible]	3.3936	1/295
8.387	3.3019	1/302	8.426	3.3173	1/301	8.465	3.3326	1/300	[illegible]	[illegible]	1/298	8.543	3.3633	1/297	[illegible]	3.3787	1/295	8.621	3.3940	1/295
8.388	3.3023	1/302	8.427	3.3177	1/301	[illegible]	[illegible]	1/299	8.505	3.3484	1/298	8.544	[illegible]	1/297	[illegible]	[illegible]	1/295	[illegible]	3.3944	1/295
8.389	3.3027	1/302	8.428	[illegible]	1/301	8.467	3.3334	1/299	[illegible]	3.3488	1/298	8.545	3.3641	1/297	[illegible]	[illegible]	1/295	[illegible]	3.3948	1/295
8.390	[illegible]	1/302	[illegible]	3.3184	1/301	[illegible]	3.3338	1/299	8.507	3.3492	1/298	8.546	3.3645	1/297	8.585	3.3799	1/295	8.624	3.3952	1/295
8.391	3.3035	1/302	[illegible]	3.3188	1/301	8.469	3.3342	1/299	[illegible]	[illegible]	1/298	8.547	3.3649	1/297	[illegible]	3.3803	1/295	8.625	3.3956	1/295
8.392	3.3039	1/302	8.431	[illegible]	1/301	8.470	3.3346	1/299	[illegible]	3.3499	1/298	8.548	3.3653	1/297	8.587	3.3807	1/295	[illegible]	3.3960	1/295
8.393	3.3043	1/302	8.432	3.3196	1/301	8.471	3.3350	1/299	8.510	3.3503	1/298	[illegible]	3.3657	1/297	[illegible]	3.3810	1/295	8.627	[illegible]	1/295
8.394	3.3047	1/302	8.433	3.3200	1/301	8.472	3.3354	1/299	8.511	[illegible]	1/298	[illegible]	3.3661	1/297	8.589	3.3814	1/295	[illegible]	3.3968	1/295
8.395	3.3051	1/302	8.434	3.3204	1/301	8.473	3.3358	1/299	[illegible]	3.3511	1/298	8.551	3.3665	1/297	8.590	3.3818	1/295	8.629	3.3972	1/295
8.396	3.3055	1/302	8.435	3.3208	1/301	8.474	3.3362	1/299	8.513	3.3515	1/298	8.552	[illegible]	1/296	8.591	3.3822	1/295	8.630	3.3976	1/295
8.397	3.3058	1/302	8.436	3.3212	1/301	8.475	[illegible]	1/299	8.514	3.3519	1/298	[illegible]	3.3673	1/296	8.592	3.3826	1/295	8.631	3.3980	1/295
8.398	3.3062	1/302	[illegible]	3.3216	1/301	[illegible]	3.3370	1/299	8.515	3.3523	1/298	8.554	[illegible]	1/296	[illegible]	3.3830	1/295	8.632	[illegible]	1/295
8.399	3.3066	1/302	[illegible]	3.3220	1/301	8.477	[illegible]	1/299	8.516	3.3527	1/298	8.555	3.3681	1/296	8.594	[illegible]	1/295	[illegible]	3.3988	1/295
[illegible]	[illegible]	1/302	[illegible]	[illegible]	1/301	[illegible]	[illegible]	1/299	[illegible]	3.3531	1/298	[illegible]	3.3684	1/296	[illegible]	[illegible]	1/295	[illegible]	3.3992	1/295
[illegible]	[illegible]	1/302	8.440	[illegible]	1/301	8.479	3.3381	1/299	8.518	3.3535	1/298	8.557	3.3688	1/296	[illegible]	[illegible]	1/295	8.635	3.3995	1/295
[illegible]	[illegible]	1/302	8.441	3.3232	1/301	8.480	[illegible]	1/299	8.519	[illegible]	1/298	[illegible]	[illegible]	1/296	[illegible]	3.3846	1/295	8.636	3.3999	1/295
[illegible]	[illegible]	1/302	8.442	3.3236	1/300	[illegible]	[illegible]	1/299	[illegible]	3.3542	1/298	8.559	3.3696	1/296	8.598	[illegible]	1/295	[illegible]	[illegible]	1/294
[illegible]	[illegible]	1/302	8.443	[illegible]	1/300	[illegible]	3.3393	1/299	8.521	3.3547	1/298	[illegible]	3.3700	1/296	8.599	3.3854	1/295	8.638	4.4067	1/294
[illegible]	3.3890	1/302	[illegible]	3.3244	1/300	8.483	3.3397	1/299	8.522	[illegible]	1/298	8.561	3.3704	1/296	8.600	3.3858	1/295	8.639	[illegible]	1/295
[illegible]	[illegible]	1/302	8.445	[illegible]	1/300	8.484	[illegible]	1/299	[illegible]	3.3554	1/298	8.562	3.3708	1/296	8.601	3.3862	1/295	8.640	3.4014	1/295
8.407	3.3098	1/302	8.446	3.3251	1/300	8.485	3.3405	1/299	[illegible]	[illegible]	1/297	8.563	3.3712	1/296	8.602	3.3866	1/295	8.641	[illegible]	1/295
[illegible]	3.3102	1/302	8.447	3.3255	1/300	8.486	[illegible]	1/299	8.525	[illegible]	1/297	8.564	[illegible]	1/296	[illegible]	3.3870	1/295	[illegible]	[illegible]	1/295
8.409	3.3106	1/302	8.448	3.3259	1/300	8.487	[illegible]	1/299	8.526	3.3566	1/297	8.565	3.3720	1/295	8.604	3.3873	1/295	[illegible]	3.4026	1/295

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
8.644	3.4030	1/293	8.683	3.4184	1/292	8.722	3.4338	1/291	8.761	3.4492	1/289	8.800	3.4645	1/288	8.839	3.4799	1/287	8.878	3.4952	1/286
8.645	3.4034	1/293	8.684	3.4188	1/292	8.723	3.4342	1/291	8.762	3.4495	1/289	8.801	3.4649	1/288	8.840	3.4803	1/287	8.879	3.4956	1/286
8.646	3.4038	1/293	8.685	3.4192	1/292	8.724	3.4346	1/291	8.763	3.4499	1/289	8.802	3.4653	1/288	8.841	3.4807	1/287	8.880	3.4960	1/285
8.647	3.4042	1/293	8.686	3.4196	1/292	8.725	3.4350	1/291	8.764	3.4503	1/289	8.803	3.4657	1/288	8.842	3.4810	1/287	8.881	3.4964	1/285
8.648	3.4046	1/293	8.687	3.4200	1/292	8.726	3.4354	1/291	8.765	3.4507	1/289	8.804	3.4661	1/288	8.843	3.4814	1/287	8.882	3.4968	1/285
8.649	3.4050	1/293	8.688	3.4204	1/292	8.727	3.4358	1/291	8.766	3.4511	1/289	8.805	3.4665	1/288	8.844	3.4818	1/287	8.883	3.4972	1/285
8.650	3.4054	1/293	8.689	3.4208	1/292	8.728	3.4362	1/290	8.767	3.4515	1/289	8.806	3.4669	1/288	8.845	3.4822	1/287	8.884	3.4976	1/285
8.651	3.4058	1/293	8.690	3.4212	1/292	8.729	3.4366	1/290	8.768	3.4519	1/289	8.807	3.4673	1/288	8.846	3.4826	1/287	8.885	3.4980	1/285
8.652	3.4062	1/293	8.691	3.4216	1/292	8.730	3.4370	1/290	8.769	3.4523	1/289	8.808	3.4677	1/288	8.847	3.4830	1/287	8.886	3.4984	1/285
8.653	3.4066	1/293	8.692	3.4220	1/292	8.731	3.4373	1/290	8.770	3.4527	1/289	8.809	3.4681	1/288	8.848	3.4834	1/287	8.887	3.4988	1/285
8.654	3.4070	1/293	8.693	3.4224	1/292	8.732	3.4377	1/290	8.771	3.4531	1/289	8.810	3.4684	1/288	8.849	3.4838	1/286	8.888	3.4992	1/285
8.655	3.4074	1/293	8.694	3.4228	1/292	8.733	3.4381	1/290	8.772	3.4535	1/289	8.811	3.4688	1/288	8.850	3.4842	1/286	8.889	3.4995	1/285
8.656	3.4078	1/293	8.695	3.4232	1/292	8.734	3.4385	1/290	8.773	3.4539	1/289	8.812	3.4692	1/288	8.851	3.4846	1/286	8.890	3.4999	1/285
8.657	3.4082	1/293	8.696	3.4236	1/292	8.735	3.4389	1/290	8.774	3.4543	1/289	8.813	3.4696	1/288	8.852	3.4850	1/286	8.891	3.5003	1/285
8.658	3.4086	1/293	8.697	3.4240	1/292	8.736	3.4393	1/290	8.775	3.4547	1/289	8.814	3.4700	1/288	8.853	3.4854	1/286	8.892	3.5007	1/285
8.659	3.4090	1/293	8.698	3.4244	1/291	8.737	3.4397	1/290	8.776	3.4551	1/289	8.815	3.4704	1/288	8.854	3.4858	1/286	8.893	3.5011	1/285
8.660	3.4094	1/293	8.699	3.4247	1/291	8.738	3.4401	1/290	8.777	3.4555	1/289	8.816	3.4708	1/288	8.855	3.4862	1/286	8.894	3.5015	1/285
8.661	3.4098	1/293	8.700	3.4251	1/291	8.739	3.4405	1/290	8.778	3.4558	1/289	8.817	3.4712	1/288	8.856	3.4866	1/286	8.895	3.5019	1/285
8.662	3.4102	1/293	8.701	3.4255	1/291	8.740	3.4409	1/290	8.779	3.4562	1/289	8.818	3.4716	1/288	8.857	3.4870	1/286	8.896	3.5023	1/285
8.663	3.4106	1/293	8.702	3.4259	1/291	8.741	3.4413	1/290	8.780	3.4566	1/289	8.819	3.4720	1/287	8.858	3.4873	1/286	8.897	3.5027	1/285
8.664	3.4110	1/293	8.703	3.4263	1/291	8.742	3.4417	1/290	8.781	3.4570	1/289	8.820	3.4724	1/287	8.859	3.4877	1/286	8.898	3.5031	1/285
8.665	3.4114	1/293	8.704	3.4267	1/291	8.743	3.4421	1/290	8.782	3.4574	1/289	8.821	3.4728	1/287	8.860	3.4881	1/286	8.899	3.5035	1/285
8.666	3.4118	1/293	8.705	3.4271	1/291	8.744	3.4425	1/290	8.783	3.4578	1/289	8.822	3.4732	1/287	8.861	3.4885	1/286	8.900	3.5039	1/285
8.667	3.4121	1/293	8.706	3.4275	1/291	8.745	3.4429	1/290	8.784	3.4582	1/289	8.823	3.4736	1/287	8.862	3.4889	1/286	8.901	3.5043	1/285
8.668	3.4125	1/292	8.707	3.4279	1/291	8.746	3.4433	1/290	8.785	3.4586	1/289	8.824	3.4740	1/287	8.863	3.4893	1/286	8.902	3.5047	1/285
8.669	3.4129	1/292	8.708	3.4283	1/291	8.747	3.4436	1/290	8.786	3.4590	1/289	8.825	3.4744	1/287	8.864	3.4897	1/286	8.903	3.5051	1/285
8.670	3.4133	1/292	8.709	3.4287	1/291	8.748	3.4440	1/290	8.787	3.4594	1/289	8.826	3.4747	1/287	8.865	3.4901	1/286	8.904	3.5055	1/284
8.671	3.4137	1/292	8.710	3.4291	1/291	8.749	3.4444	1/290	8.788	3.4598	1/288	8.827	3.4751	1/287	8.866	3.4905	1/286	8.905	3.5058	1/285
8.672	3.4141	1/292	8.711	3.4295	1/291	8.750	3.4448	1/290	8.789	3.4602	1/288	8.828	3.4755	1/287	8.867	3.4909	1/286	8.906	3.5062	1/285
8.673	3.4145	1/292	8.712	3.4299	1/291	8.751	3.4452	1/290	8.790	3.4606	1/288	8.829	3.4759	1/287	8.868	3.4913	1/286	8.907	3.5066	1/285
8.674	3.4149	1/292	8.713	3.4303	1/291	8.752	3.4456	1/290	8.791	3.4610	1/288	8.830	3.4763	1/287	8.869	3.4917	1/286	8.908	3.5070	1/285
8.675	3.4153	1/292	8.714	3.4307	1/291	8.753	3.4460	1/290	8.792	3.4614	1/288	8.831	3.4767	1/287	8.870	3.4921	1/286	8.909	3.5074	1/285
8.676	3.4157	1/292	8.715	3.4310	1/291	8.754	3.4464	1/290	8.793	3.4618	1/288	8.832	3.4771	1/287	8.871	3.4925	1/286	8.910	3.5078	1/285
8.677	3.4161	1/292	8.716	3.4314	1/291	8.755	3.4468	1/290	8.794	3.4621	1/288	8.833	3.4775	1/287	8.872	3.4929	1/286	8.911	3.5082	1/285
8.678	3.4165	1/292	8.717	3.4318	1/291	8.756	3.4472	1/290	8.795	3.4625	1/288	8.834	3.4779	1/287	8.873	3.4933	1/286	8.912	3.5086	1/284
8.679	3.4169	1/292	8.718	3.4322	1/291	8.757	3.4476	1/290	8.796	3.4629	1/288	8.835	3.4783	1/287	8.874	3.4936	1/286	8.913	3.5090	1/284
8.680	3.4173	1/292	8.719	3.4326	1/291	8.758	3.4480	1/289	8.797	3.4633	1/288	8.836	3.4787	1/287	8.875	3.4940	1/286	8.914	3.5094	1/284
8.681	3.4177	1/292	8.720	3.4330	1/291	8.759	3.4484	1/289	8.798	3.4637	1/288	8.837	3.4791	1/287	8.876	3.4944	1/286	8.915	3.5098	1/284
8.682	3.4181	1/292	8.721	3.4334	1/291	8.760	3.4488	1/289	8.799	3.4641	1/288	8.838	3.4795	1/287	8.877	3.4948	1/286	8.916	3.5102	1/284

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
8.917	3.5106	1/284	8.956	3.5259	1/283	8.995	3.5413	1/282	9.034	3.5566	1/281	9.073	3.5720	1/280	9.112	3.5873	1/279	9.151	3.6027	1/278
8.918	3.5110	1/284	8.957	3.5263	1/283	8.996	3.5417	1/282	9.035	3.5570	1/281	9.074	3.5724	1/280	9.113	3.5877	1/279	9.152	3.6031	1/278
8.919	3.5114	1/284	8.958	3.5267	1/283	8.997	3.5421	1/282	9.036	3.5574	1/281	9.075	3.5728	1/280	9.114	3.5881	1/279	9.153	3.6035	1/278
8.920	3.5118	1/284	8.959	3.5271	1/283	8.998	3.5425	1/282	9.037	3.5578	1/281	9.076	3.5732	1/280	9.115	3.5885	1/279	9.154	3.6039	1/278
8.921	3.5121	1/284	8.960	3.5275	1/283	8.999	3.5429	1/282	9.038	3.5582	1/281	9.077	3.5736	1/280	9.116	3.5889	1/279	9.155	3.6043	1/278
8.922	3.5125	1/284	8.961	3.5279	1/283	9.000	3.5433	1/282	9.039	3.5585	1/281	9.078	3.5740	1/280	9.117	3.5893	1/279	9.156	3.6047	1/278
8.923	3.5129	1/284	8.962	3.5283	1/283	9.001	3.5437	1/282	9.040	3.5589	1/281	9.079	3.5744	1/280	9.118	3.5897	1/279	9.157	3.6051	1/278
8.924	3.5133	1/284	8.963	3.5287	1/283	9.002	3.5441	1/282	9.041	3.5593	1/281	9.080	3.5747	1/280	9.119	3.5901	1/279	9.158	3.6055	1/278
8.925	3.5137	1/284	8.964	3.5291	1/283	9.003	3.5444	1/282	9.042	3.5597	1/281	9.081	3.5751	1/280	9.120	3.5905	1/279	9.159	3.6058	1/278
8.926	3.5141	1/284	8.965	3.5295	1/283	9.004	3.5448	1/282	9.043	3.5602	1/280	9.082	3.5755	1/279	9.121	3.5909	1/278	9.160	3.6062	1/278
8.927	3.5145	1/284	8.966	3.5299	1/283	9.005	3.5452	1/282	9.044	3.5606	1/280	9.083	3.5759	1/279	9.122	3.5913	1/278	9.161	3.6066	1/278
8.928	3.5149	1/284	8.967	3.5303	1/283	9.006	3.5456	1/281	9.045	3.5610	1/280	9.084	3.5763	1/279	9.123	3.5917	1/278	9.162	3.6070	1/278
8.929	3.5153	1/284	8.968	3.5307	1/283	9.007	3.5460	1/281	9.046	3.5614	1/280	9.085	3.5767	1/279	9.124	3.5921	1/278	9.163	3.6074	1/277
8.930	3.5157	1/284	8.969	3.5310	1/283	9.008	3.5464	1/281	9.047	3.5618	1/280	9.086	3.5771	1/279	9.125	3.5925	1/278	9.164	3.6078	1/277
8.931	3.5161	1/284	8.970	3.5314	1/283	9.009	3.5468	1/281	9.048	3.5621	1/280	9.087	3.5775	1/279	9.126	3.5929	1/278	9.165	3.6082	1/277
8.932	3.5165	1/284	8.971	3.5318	1/283	9.010	3.5472	1/281	9.049	3.5625	1/280	9.088	3.5779	1/279	9.127	3.5932	1/278	9.166	3.6086	1/277
8.933	3.5169	1/284	8.972	3.5322	1/283	9.011	3.5476	1/281	9.050	3.5629	1/280	9.089	3.5783	1/279	9.128	3.5936	1/278	9.167	3.6090	1/277
8.934	3.5173	1/284	8.973	3.5326	1/283	9.012	3.5480	1/281	9.051	3.5633	1/280	9.090	3.5787	1/279	9.129	3.5940	1/278	9.168	3.6094	1/277
8.935	3.5177	1/284	8.974	3.5330	1/283	9.013	3.5484	1/281	9.052	3.5637	1/280	9.091	3.5791	1/279	9.130	3.5944	1/278	9.169	3.6098	1/276
8.936	3.5181	1/284	8.975	3.5334	1/282	9.014	3.5488	1/281	9.053	3.5641	1/280	9.092	3.5795	1/279	9.131	3.5948	1/278	9.170	3.6102	1/276
8.937	3.5184	1/284	8.976	3.5338	1/282	9.015	3.5492	1/281	9.054	3.5645	1/280	9.093	3.5799	1/279	9.132	3.5952	1/278	9.171	3.6106	1/276
8.938	3.5188	1/284	8.977	3.5342	1/282	9.016	3.5495	1/281	9.055	3.5649	1/280	9.094	3.5803	1/279	9.133	3.5956	1/278	9.172	3.6110	1/276
8.939	3.5192	1/284	8.978	3.5346	1/282	9.017	3.5499	1/281	9.056	3.5653	1/280	9.095	3.5807	1/279	9.134	3.5960	1/278	9.173	3.6114	1/276
8.940	3.5196	1/284	8.979	3.5350	1/282	9.018	3.5503	1/281	9.057	3.5657	1/280	9.096	3.5811	1/279	9.135	3.5964	1/278	9.174	3.6118	1/276
8.941	3.5200	1/284	8.980	3.5354	1/282	9.019	3.5507	1/281	9.058	3.5661	1/280	9.097	3.5814	1/279	9.136	3.5968	1/277	9.175	3.6121	1/276
8.942	3.5204	1/284	8.981	3.5358	1/282	9.020	3.5511	1/281	9.059	3.5665	1/280	9.098	3.5818	1/279	9.137	3.5972	1/277	9.176	3.6125	1/276
8.943	3.5208	1/283	8.982	3.5362	1/282	9.021	3.5515	1/281	9.060	3.5669	1/280	9.099	3.5822	1/279	9.138	3.5976	1/277	9.177	3.6129	1/276
8.944	3.5212	1/283	8.983	3.5366	1/282	9.022	3.5519	1/281	9.061	3.5673	1/280	9.100	3.5826	1/279	9.139	3.5980	1/277	9.178	3.6133	1/276
8.945	3.5216	1/283	8.984	3.5370	1/282	9.023	3.5523	1/281	9.062	3.5677	1/280	9.101	3.5830	1/279	9.140	3.5984	1/277	9.179	3.6137	1/276
8.946	3.5220	1/283	8.985	3.5373	1/282	9.024	3.5527	1/281	9.063	3.5681	1/280	9.102	3.5834	1/279	9.141	3.5988	1/277	9.180	3.6141	1/276
8.947	3.5224	1/283	8.986	3.5377	1/282	9.025	3.5531	1/281	9.064	3.5684	1/280	9.103	3.5838	1/279	9.142	3.5992	1/277	9.181	3.6145	1/276
8.948	3.5228	1/283	8.987	3.5381	1/282	9.026	3.5535	1/281	9.065	3.5688	1/280	9.104	3.5842	1/278	9.143	3.5995	1/277	9.182	3.6149	1/276
8.949	3.5232	1/283	8.988	3.5385	1/282	9.027	3.5539	1/281	9.066	3.5692	1/280	9.105	3.5846	1/278	9.144	3.5999	1/277	9.183	3.6153	1/276
8.950	3.5236	1/283	8.989	3.5389	1/282	9.028	3.5543	1/281	9.067	3.5696	1/280	9.106	3.5850	1/278	9.145	3.6003	1/277	9.184	3.6157	1/276
8.951	3.5240	1/283	8.990	3.5393	1/282	9.029	3.5547	1/281	9.068	3.5700	1/280	9.107	3.5854	1/278	9.146	3.6007	1/277	9.185	3.6161	1/276
8.952	3.5244	1/283	8.991	3.5397	1/282	9.030	3.5551	1/281	9.069	3.5704	1/280	9.108	3.5858	1/278	9.147	3.6011	1/277	9.186	3.6165	1/276
8.953	3.5247	1/283	8.992	3.5401	1/282	9.031	3.5555	1/281	9.070	3.5708	1/280	9.109	3.5862	1/278	9.148	3.6015	1/277	9.187	3.6169	1/276
8.954	3.5251	1/283	8.993	3.5405	1/282	9.032	3.5559	1/281	9.071	3.5712	1/279	9.110	3.5866	1/278	9.149	3.6019	1/277	9.188	3.6173	1/276
8.955	3.5255	1/283	8.994	3.5409	1/282	9.033	3.5563	1/281	9.072	3.5716	1/279	9.111	3.5870	1/278	9.150	3.6023	1/277	9.189	3.6177	1/276

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
9.190	3.6181	1/276	9.229	3.6334	1/275	9.268	3.6488	1/274	9.307	3.6641	1/272	9.346	3.6795	1/271	9.385	3.6948	1/270	9.424	3.7102	1/269
9.191	3.6184	1/276	9.230	3.6338	1/275	9.269	3.6492	1/273	9.308	3.6645	1/272	9.347	3.6799	1/271	9.386	3.6952	1/270	9.425	3.7106	1/269
9.192	3.6188	1/276	9.231	3.6342	1/275	9.270	3.6495	1/273	9.309	3.6649	1/272	9.348	3.6803	1/271	9.387	3.6956	1/270	9.426	3.7110	1/269
9.193	3.6192	1/276	9.232	3.6346	1/275	9.271	3.6499	1/273	9.310	3.6653	1/272	9.349	3.6807	1/271	9.388	3.6960	1/270	9.427	3.7114	1/269
9.194	3.6196	1/276	9.233	3.6350	1/275	9.272	3.6503	1/273	9.311	3.6657	1/272	9.350	3.6810	1/271	9.389	3.6964	1/270	9.428	3.7118	1/269
9.195	3.6200	1/276	9.234	3.6354	1/275	9.273	3.6507	1/273	9.312	3.6661	1/272	9.351	3.6814	1/271	9.390	3.6968	1/270	9.429	3.7121	1/269
9.196	3.6204	1/276	9.235	3.6358	1/275	9.274	3.6511	1/273	9.313	3.6665	1/272	9.352	3.6818	1/271	9.391	3.6972	1/270	9.430	3.7125	1/269
9.197	3.6208	1/276	9.236	3.6362	1/274	9.275	3.6515	1/273	9.314	3.6669	1/272	9.353	3.6822	1/271	9.392	3.6976	1/270	9.431	3.7129	1/269
9.198	3.6212	1/276	9.237	3.6366	1/274	9.276	3.6519	1/273	9.315	3.6673	1/272	9.354	3.6826	1/271	9.393	3.6980	1/270	9.432	3.7133	1/269
9.199	3.6216	1/276	9.238	3.6370	1/274	9.277	3.6523	1/273	9.316	3.6677	1/272	9.355	3.6830	1/271	9.394	3.6984	1/270	9.433	3.7137	1/269
9.200	3.6220	1/276	9.239	3.6373	1/274	9.278	3.6527	1/273	9.317	3.6681	1/272	9.356	3.6834	1/271	9.395	3.6988	1/270	9.434	3.7141	1/269
9.201	3.6224	1/276	9.240	3.6377	1/274	9.279	3.6531	1/273	9.318	3.6684	1/272	9.357	3.6838	1/271	9.396	3.6992	1/270	9.435	3.7145	1/269
9.202	3.6228	1/276	9.241	3.6381	1/274	9.280	3.6535	1/273	9.319	3.6688	1/272	9.358	3.6842	1/271	9.397	3.6995	1/270	9.436	3.7149	1/269
9.203	3.6232	1/275	9.242	3.6385	1/274	9.281	3.6539	1/273	9.320	3.6692	1/272	9.359	3.6846	1/271	9.398	3.6999	1/270	9.437	3.7153	1/269
9.204	3.6236	1/275	9.243	3.6389	1/274	9.282	3.6543	1/273	9.321	3.6696	1/272	9.360	3.6850	1/271	9.399	3.7003	1/270	9.438	3.7157	1/269
9.205	3.6240	1/275	9.244	3.6393	1/274	9.283	3.6547	1/273	9.322	3.6700	1/272	9.361	3.6854	1/271	9.400	3.7007	1/270	9.439	3.7161	1/269
9.206	3.6244	1/275	9.245	3.6397	1/274	9.284	3.6551	1/273	9.323	3.6704	1/272	9.362	3.6858	1/271	9.401	3.7011	1/270	9.440	3.7165	1/269
9.207	3.6247	1/275	9.246	3.6401	1/274	9.285	3.6555	1/273	9.324	3.6708	1/272	9.363	3.6862	1/271	9.402	3.7015	1/270	9.441	3.7169	1/269
9.208	3.6251	1/275	9.247	3.6405	1/274	9.286	3.6558	1/273	9.325	3.6712	1/272	9.364	3.6866	1/271	9.403	3.7019	1/270	9.442	3.7173	1/269
9.209	3.6255	1/275	9.248	3.6409	1/274	9.287	3.6562	1/273	9.326	3.6716	1/272	9.365	3.6870	1/271	9.404	3.7023	1/270	9.443	3.7177	1/268
9.210	3.6259	1/275	9.249	3.6413	1/274	9.288	3.6566	1/273	9.327	3.6720	1/272	9.366	3.6873	1/271	9.405	3.7027	1/270	9.444	3.7181	1/268
9.211	3.6263	1/275	9.250	3.6417	1/274	9.289	3.6570	1/273	9.328	3.6724	1/272	9.367	3.6877	1/271	9.406	3.7031	1/270	9.445	3.7184	1/268
9.212	3.6267	1/275	9.251	3.6421	1/274	9.290	3.6574	1/273	9.329	3.6728	1/272	9.368	3.6881	1/271	9.407	3.7035	1/269	9.446	3.7188	1/268
9.213	3.6271	1/275	9.252	3.6425	1/274	9.291	3.6578	1/273	9.330	3.6732	1/272	9.369	3.6885	1/271	9.408	3.7039	1/269	9.447	3.7192	1/268
9.214	3.6275	1/275	9.253	3.6429	1/274	9.292	3.6582	1/273	9.331	3.6736	1/272	9.370	3.6889	1/271	9.409	3.7043	1/269	9.448	3.7196	1/268
9.215	3.6279	1/275	9.254	3.6432	1/274	9.293	3.6586	1/273	9.332	3.6740	1/272	9.371	3.6893	1/271	9.410	3.7047	1/269	9.449	3.7200	1/268
9.216	3.6283	1/275	9.255	3.6436	1/274	9.294	3.6590	1/273	9.333	3.6744	1/272	9.372	3.6897	1/270	9.411	3.7051	1/269	9.450	3.7204	1/268
9.217	3.6287	1/275	9.256	3.6440	1/274	9.295	3.6594	1/273	9.334	3.6747	1/272	9.373	3.6901	1/270	9.412	3.7055	1/269	9.451	3.7208	1/268
9.218	3.6291	1/275	9.257	3.6444	1/274	9.296	3.6598	1/273	9.335	3.6751	1/272	9.374	3.6905	1/270	9.413	3.7058	1/269	9.452	3.7212	1/268
9.219	3.6295	1/275	9.258	3.6448	1/274	9.297	3.6602	1/273	9.336	3.6755	1/272	9.375	3.6909	1/270	9.414	3.7062	1/269	9.453	3.7216	1/268
9.220	3.6299	1/275	9.259	3.6452	1/274	9.298	3.6606	1/273	9.337	3.6759	1/272	9.376	3.6913	1/270	9.415	3.7066	1/269	9.454	3.7220	1/268
9.221	3.6303	1/275	9.260	3.6456	1/274	9.299	3.6610	1/273	9.338	3.6763	1/271	9.377	3.6917	1/270	9.416	3.7070	1/269	9.455	3.7224	1/268
9.222	3.6307	1/275	9.261	3.6460	1/274	9.300	3.6614	1/273	9.339	3.6767	1/271	9.378	3.6921	1/270	9.417	3.7074	1/269	9.456	3.7228	1/268
9.223	3.6310	1/275	9.262	3.6464	1/274	9.301	3.6618	1/273	9.340	3.6771	1/271	9.379	3.6925	1/270	9.418	3.7078	1/269	9.457	3.7232	1/268
9.224	3.6314	1/275	9.263	3.6468	1/274	9.302	3.6621	1/273	9.341	3.6775	1/271	9.380	3.6929	1/270	9.419	3.7082	1/269	9.458	3.7236	1/268
9.225	3.6318	1/275	9.264	3.6472	1/274	9.303	3.6625	1/272	9.342	3.6779	1/271	9.381	3.6932	1/270	9.420	3.7086	1/269	9.459	3.7240	1/268
9.226	3.6322	1/275	9.265	3.6476	1/274	9.304	3.6629	1/272	9.343	3.6783	1/271	9.382	3.6936	1/270	9.421	3.7090	1/269	9.460	3.7244	1/268
9.227	3.6326	1/275	9.266	3.6480	1/274	9.305	3.6633	1/272	9.344	3.6787	1/271	9.383	3.6940	1/270	9.422	3.7094	1/269	9.461	3.7247	1/268
9.228	3.6330	1/275	9.267	3.6484	1/274	9.306	3.6637	1/272	9.345	3.6791	1/271	9.384	3.6944	1/270	9.423	3.7098	1/269	9.462	3.7251	1/268

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
9.463	3.7255	1/268	9.502	3.7409	1/267	9.541	3.7562	1/266	[illegible]	3.7716	1/265	9.619	3.7870	1/264	9.658	3.8023	1/262	[illegible]	3.8177	1/261
9.464	3.7250	1/268	[illegible]	3.7413	1/267	9.542	3.7566	1/266	[illegible]	3.7720	1/265	9.620	3.7873	1/264	9.659	[illegible]	1/262	9.698	3.8181	1/261
[illegible]	[illegible]	1/268	[illegible]	3.7417	1/267	[illegible]	3.7570	1/266	9.582	3.7724	1/265	9.621	3.7877	1/263	[illegible]	3.8031	1/262	9.699	3.8184	1/261
9.466	3.7267	1/268	9.505	3.7421	1/267	9.544	3.7574	1/266	9.583	3.7728	1/265	[illegible]	[illegible]	1/263	9.661	[illegible]	1/262	[illegible]	3.8188	1/261
[illegible]	3.7271	1/268	[illegible]	3.7425	1/267	[illegible]	3.7578	1/266	[illegible]	3.7732	1/265	9.623	3.7885	1/263	9.662	3.8039	1/262	[illegible]	3.8192	1/261
[illegible]	3.7275	1/268	9.507	3.7429	1/267	[illegible]	3.7582	1/266	[illegible]	[illegible]	1/264	9.624	[illegible]	1/263	[illegible]	[illegible]	1/262	[illegible]	3.8196	1/261
[illegible]	3.7279	1/268	[illegible]	3.7432	1/267	9.547	3.7586	1/266	9.586	3.7740	1/264	[illegible]	3.7893	1/263	9.664	3.8047	1/262	[illegible]	[illegible]	1/261
9.470	3.7283	1/268	9.509	3.7436	1/267	[illegible]	3.7590	1/266	[illegible]	3.7744	1/264	9.626	3.7897	1/263	9.665	[illegible]	1/262	9.704	3.8204	1/261
9.471	3.7287	1/268	9.510	3.7440	1/267	[illegible]	3.7594	1/265	[illegible]	3.7747	1/264	9.627	3.7901	1/263	9.666	[illegible]	1/262	9.705	3.8208	1/261
9.472	3.7291	1/268	9.511	3.7444	1/267	9.550	3.7598	1/265	9.589	3.7751	1/264	9.628	3.7905	1/263	9.667	3.8050	1/262	[illegible]	3.8212	1/261
9.473	3.7295	1/268	9.512	3.7448	1/266	9.551	3.7602	1/265	[illegible]	[illegible]	1/264	9.629	3.7909	1/263	9.668	[illegible]	1/262	[illegible]	3.8216	1/261
9.474	3.7299	1/268	9.513	3.7452	1/266	[illegible]	3.7606	1/265	9.591	3.7759	1/264	9.630	3.7913	1/263	9.669	3.8060	1/262	9.708	3.8220	1/261
9.475	3.7303	1/268	9.514	3.7456	1/266	[illegible]	3.7610	1/265	9.592	3.7763	1/264	[illegible]	3.7917	1/263	9.670	3.8070	1/262	[illegible]	[illegible]	1/261
[illegible]	3.7307	1/268	9.515	3.7460	1/266	[illegible]	3.7614	1/265	9.593	3.7767	1/264	9.632	3.7921	1/263	9.671	3.8074	1/262	9.710	[illegible]	1/261
9.477	3.7310	1/267	[illegible]	3.7464	1/266	[illegible]	3.7618	1/265	9.594	3.7771	1/264	9.633	[illegible]	1/263	[illegible]	3.8078	1/262	9.711	3.8232	1/261
9.478	3.7314	1/267	9.517	3.7468	1/266	[illegible]	3.7621	1/265	[illegible]	3.7775	1/264	9.634	3.7929	1/263	[illegible]	[illegible]	1/262	[illegible]	3.8236	1/261
9.479	3.7318	1/267	9.518	3.7472	1/266	[illegible]	3.7625	1/265	9.596	3.7779	1/264	[illegible]	3.7932	1/263	9.674	3.8086	1/262	[illegible]	[illegible]	1/261
9.480	3.7322	1/267	9.519	3.7476	1/266	9.558	3.7629	1/265	[illegible]	3.7783	1/264	[illegible]	3.7936	1/263	9.675	3.8090	1/262	[illegible]	[illegible]	1/261
9.481	3.7326	1/267	9.520	3.7480	1/266	9.559	3.7633	1/265	9.598	3.7787	1/264	9.637	3.7940	1/263	[illegible]	[illegible]	1/262	9.713	3.8247	1/261
9.482	3.7330	1/267	[illegible]	3.7484	1/266	9.560	3.7637	1/265	9.599	3.7791	1/264	[illegible]	[illegible]	1/263	9.677	3.8098	1/262	9.716	3.8251	1/261
9.483	3.7334	1/267	[illegible]	3.7488	1/266	[illegible]	3.7641	1/265	[illegible]	[illegible]	1/264	[illegible]	[illegible]	1/263	9.678	3.8102	1/262	9.717	3.8255	1/261
[illegible]	[illegible]	1/267	9.523	3.7492	1/266	9.562	3.7645	1/265	9.601	3.7799	1/264	9.640	3.7932	1/263	[illegible]	3.8106	1/262	9.718	3.8259	1/261
9.485	3.7342	1/267	[illegible]	3.7495	1/266	9.563	3.7649	1/265	9.602	[illegible]	1/264	9.641	3.7956	1/263	9.680	[illegible]	1/262	9.719	3.8263	1/261
9.486	3.7346	1/267	[illegible]	3.7499	1/266	[illegible]	3.7653	1/265	9.603	3.7807	1/264	[illegible]	3.7960	1/263	[illegible]	[illegible]	1/262	9.720	3.8267	1/261
9.487	3.7350	1/267	[illegible]	3.7503	1/266	[illegible]	3.7657	1/265	9.604	3.7810	1/264	9.643	3.7964	1/263	[illegible]	3.8118	1/262	9.721	[illegible]	1/261
[illegible]	[illegible]	1/267	9.527	3.7507	1/266	9.566	3.7661	1/265	9.605	3.7814	1/264	9.644	[illegible]	1/263	9.683	[illegible]	1/262	9.722	[illegible]	1/261
[illegible]	3.7358	1/267	9.529	3.7511	1/266	9.567	3.7665	1/265	9.606	[illegible]	1/264	[illegible]	3.7972	1/263	[illegible]	3.8125	1/262	[illegible]	3.8279	1/261
9.490	3.7362	1/267	9.529	3.7515	1/266	9.568	3.7669	1/265	9.607	3.7822	1/264	[illegible]	3.7976	1/263	9.685	3.8129	1/262	9.724	[illegible]	1/261
[illegible]	3.7366	1/267	[illegible]	3.7519	1/266	9.569	3.7673	1/265	[illegible]	[illegible]	1/264	9.647	3.7980	1/263	9.686	3.8133	1/262	[illegible]	[illegible]	1/261
9.492	3.7370	1/267	9.531	3.7523	1/266	9.570	3.7677	1/265	9.609	3.7830	1/264	[illegible]	3.7984	1/263	[illegible]	3.8137	1/262	[illegible]	[illegible]	1/261
[illegible]	3.7373	1/267	9.532	3.7527	1/266	9.571	3.7681	1/265	9.610	3.7834	1/264	9.649	3.7988	1/263	[illegible]	3.8141	1/262	9.727	[illegible]	1/261
9.494	3.7377	1/267	[illegible]	3.7531	1/266	[illegible]	3.7684	1/265	9.611	3.7838	1/264	[illegible]	3.7992	1/263	9.689	3.8145	1/262	[illegible]	3.8299	1/261
9.495	3.7381	1/267	9.534	3.7535	1/266	9.573	3.7688	1/265	9.612	3.7842	1/264	9.651	3.7995	1/263	9.690	3.8149	1/262	[illegible]	3.8303	1/261
[illegible]	[illegible]	1/267	[illegible]	3.7539	1/266	9.574	[illegible]	1/265	9.613	3.7846	1/264	9.652	3.7999	[illegible]	[illegible]	3.8153	1/262	9.730	3.8307	1/261
[illegible]	[illegible]	1/267	[illegible]	3.7543	1/266	9.575	3.7696	1/265	9.614	3.7850	1/264	9.653	3.8003	1/263	9.692	3.8157	1/262	9.731	3.8310	1/260
[illegible]	3.7393	1/267	[illegible]	3.7547	1/266	[illegible]	3.7700	1/265	9.615	3.7854	1/264	[illegible]	[illegible]	1/263	9.693	3.8161	1/262	9.732	3.8314	1/260
9.499	3.7397	1/267	9.538	3.7551	1/266	9.577	3.7704	1/265	9.616	3.7858	1/264	9.655	3.8011	1/263	[illegible]	3.8165	1/261	9.733	[illegible]	1/260
9.500	3.7401	1/267	[illegible]	3.7555	1/266	[illegible]	3.7708	1/265	9.617	3.7862	1/264	9.656	3.8015	1/263	[illegible]	3.8169	1/261	9.734	[illegible]	1/260
9.501	3.7405	1/267	[illegible]	3.7558	1/266	9.579	3.7712	1/265	9.618	3.7866	1/264	9.657	3.8019	1/262	9.696	3.8173	1/261	[illegible]	3.8326	1/260

I.—*Table for reduction of centimillimeters to fractions of an inch*—Continued.

Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.	Centimillimeters.	Thousandths of an inch.	Fractions of an inch.
9.736	3.8330	1/260	9.774	3.8480	1/259	9.812	3.8629	1/258	9.850	3.8779	1/257	9.888	3.8929	1/256	9.926	3.9078	1/255	9.963	3.9224	1/254
9.737	3.8334	1/260	9.775	3.8484	1/259	9.813	3.8633	1/258	9.851	3.8783	1/257	9.889	3.8932	1/256	9.927	3.9082	1/255	9.964	3.9228	1/254
9.738	3.8338	1/260	9.776	3.8488	1/259	9.814	3.8637	1/258	9.852	3.8787	1/257	9.890	3.8936	1/256	9.928	3.9086	1/255	9.965	3.9232	1/254
9.739	3.8342	1/260	9.777	3.8492	1/259	9.815	3.8641	1/258	9.853	3.8791	1/257	9.891	3.8940	1/256	9.929	3.9090	1/255	9.966	3.9236	1/254
9.740	3.8346	1/260	9.778	3.8495	1/259	9.816	3.8645	1/258	9.854	3.8795	1/257	9.892	3.8944	1/256	9.930	3.9094	1/255	9.967	3.9240	1/254
9.741	3.8350	1/260	9.779	3.8499	1/259	9.817	3.8649	1/258	9.853	3.8799	1/257	9.893	3.8948	1/256	9.931	3.9098	1/255	9.968	3.9244	1/254
9.742	3.8354	1/260	9.780	3.8503	1/259	9.818	3.8653	1/258	9.856	3.8803	1/257	9.894	3.8952	1/256	9.932	3.9102	1/255	9.969	3.9247	1/254
9.743	3.8358	1/260	9.781	3.8507	1/259	9.819	3.8657	1/258	9.857	3.8807	1/257	9.895	3.8956	1/256	9.933	3.9106	1/255	9.970	3.9251	1/254
9.744	3.8362	1/260	9.782	3.8511	1/259	9.820	3.8661	1/258	9.858	3.8810	1/257	9.896	3.8960	1/256	9.934	3.9110	1/255	9.971	3.9255	1/254
9.745	3.8366	1/260	9.783	3.8515	1/259	9.821	3.8665	1/258	9.859	3.8814	1/257	9.897	3.8964	1/256	9.935	3.9114	1/255	9.972	3.9259	1/254
9.746	3.8370	1/260	9.784	3.8519	1/259	9.822	3.8669	1/258	9.860	3.8818	1/257	9.898	3.8968	1/256	9.936	3.9118	1/255	9.973	3.9263	1/254
9.747	3.8373	1/260	9.785	3.8523	1/259	9.823	3.8673	1/258	9.861	3.8822	1/257	9.899	3.8972	1/256	9.937	3.9121	1/255	9.974	3.9267	1/254
9.748	3.8377	1/260	9.786	3.8527	1/259	9.824	3.8677	1/258	9.862	3.8826	1/257	9.900	3.8976	1/256	9.938	3.9125	1/255	9.975	3.9271	1/254
9.749	3.8381	1/260	9.787	3.8531	1/259	9.825	3.8681	1/258	9.863	3.8830	1/257	9.901	3.8980	1/256	9.939	3.9129	1/255	9.976	3.9275	1/254
9.750	3.8385	1/260	9.788	3.8535	1/259	9.826	3.8684	1/258	9.864	3.8834	1/257	9.902	3.8984	1/256	9.940	3.9133	1/255	9.977	3.9279	1/254
9.751	3.8389	1/260	9.789	3.8539	1/259	9.827	3.8688	1/258	9.865	3.8838	1/257	9.903	3.8988	1/256	9.941	3.9137	1/255	9.978	3.9283	1/254
9.752	3.8393	1/260	9.790	3.8543	1/259	9.828	3.8692	1/258	9.866	3.8842	1/257	9.904	3.8992	1/256	9.942	3.9141	1/255	9.979	3.9287	1/254
9.753	3.8397	1/260	9.791	3.8547	1/259	9.829	3.8696	1/258	9.867	3.8846	1/257	9.905	3.8995	1/256	9.943	3.9145	1/255	9.980	3.9291	1/254
9.754	3.8401	1/260	9.792	3.8551	1/259	9.830	3.8700	1/258	9.868	3.8850	1/257	9.906	3.8999	1/256	9.944	3.9149	1/255	9.981	3.9295	1/254
9.755	3.8405	1/260	9.793	3.8555	1/259	9.831	3.8704	1/258	9.869	3.8854	1/257	9.907	3.9003	1/256	9.945	3.9153	1/255	9.982	3.9299	1/254
9.756	3.8409	1/260	9.794	3.8558	1/259	9.832	3.8708	1/258	9.870	3.8858	1/257	9.908	3.9007	1/256	9.946	3.9157	1/255	9.983	3.9303	1/254
9.757	3.8413	1/260	9.795	3.8562	1/259	9.833	3.8712	1/258	9.871	3.8862	1/257	9.909	3.9011	1/256	9.947	3.9161	1/255	9.984	3.9307	1/254
9.758	3.8417	1/260	9.796	3.8566	1/259	9.834	3.8716	1/258	9.872	3.8866	1/257	9.910	3.9015	1/256	9.948	3.9165	1/255	9.985	3.9310	1/254
9.759	3.8421	1/260	9.797	3.8570	1/259	9.835	3.8720	1/258	9.873	3.8870	1/257	9.911	3.9019	1/256	9.949	3.9169	1/255	9.986	3.9314	1/254
9.760	3.8425	1/260	9.798	3.8574	1/259	9.836	3.8724	1/258	9.874	3.8873	1/257	9.912	3.9023	1/256	9.950	3.9173	1/255	9.987	3.9318	1/254
9.761	3.8429	1/260	9.799	3.8578	1/259	9.837	3.8728	1/258	9.875	3.8877	1/257	9.913	3.9027	1/256	9.951	3.9177	1/255	9.988	3.9322	1/254
9.762	3.8433	1/260	9.800	3.8582	1/259	9.838	3.8732	1/258	9.876	3.8881	1/257	9.914	3.9031	1/256	9.952	3.9181	1/255	9.989	3.9326	1/254
9.763	3.8436	1/260	9.801	3.8586	1/259	9.839	3.8736	1/258	9.877	3.8885	1/257	9.915	3.9035	1/256	9.953	3.9184	1/255	9.990	3.9330	1/254
9.764	3.8440	1/260	9.802	3.8590	1/259	9.840	3.8740	1/258	9.878	3.8889	1/257	9.916	3.9039	1/256	9.954	3.9188	1/255	9.991	3.9334	1/254
9.765	3.8444	1/260	9.803	3.8594	1/259	9.841	3.8744	1/258	9.879	3.8893	1/257	9.917	3.9043	1/256	9.955	3.9192	1/255	9.992	3.9338	1/254
9.766	3.8448	1/260	9.804	3.8598	1/259	9.842	3.8747	1/258	9.880	3.8897	1/257	9.918	3.9047	1/256	9.956	3.9196	1/255	9.993	3.9342	1/254
9.767	3.8452	1/260	9.805	3.8602	1/259	9.843	3.8751	1/258	9.881	3.8901	1/257	9.919	3.9051	1/256	9.957	3.9209	1/255	9.994	3.9346	1/254
9.768	3.8456	1/260	9.806	3.8606	1/258	9.844	3.8755	1/257	9.882	3.8905	1/257	9.920	3.9055	1/256	9.958	3.9204	1/255	9.995	3.9350	1/254
9.769	3.8460	1/259	9.807	3.8610	1/258	9.845	3.8759	1/257	9.883	3.8909	1/256	9.921	3.9058	1/255	9.959	3.9208	1/254	9.996	3.9354	1/254
9.770	3.8464	1/259	9.808	3.8614	1/258	9.846	3.8763	1/257	9.884	3.8913	1/256	9.922	3.9062	1/255	9.960	3.9212	1/254	9.997	3.9358	1/254
9.771	3.8468	1/259	9.809	3.8618	1/258	9.847	3.8767	1/257	9.885	3.8917	1/256	9.923	3.9066	1/255	9.961	3.9216	1/254	9.998	3.9362	1/254
9.772	3.8472	1/259	9.810	3.8621	1/258	9.848	3.8771	1/257	9.886	3.8921	1/256	9.924	3.9070	1/255	9.962	3.9220	1/254	9.999	3.9366	1/254
9.773	3.8476	1/259	9.811	3.8625	1/258	9.849	3.8775	1/257	9.887	3.8925	1/256	9.925	3.9074	1/255						

Now to return to the results of our measurements proper and the construction of our tables. As we have already seen, it has been deemed advisable, because of the close relation existing between them, to consider the length of the fiber, its crimp and fineness together, and the figures representing the values of these properties are therefore given in the same tables. So in Table II we must first call attention to the figures at the head of the table, under each sample, indicated by catalogue number showing length of fiber in crimp and the number of crimps per inch. The manner in which these figures were determined has already been described. The headings B^1, B^2, B^3, &c., have also been mentioned and refer to the section of the sample measured and represented, B^1 corresponding to that section of the sample nearest the root, B^3 that nearest the outer extremity of the fibers, and B^2 the intermediate portion. In the body of the table and under the letters here described we find the actual measurements in centimillimeters taken in each case, and they are given in detail for obvious reasons. An important one is that each reader may for himself make comparisons of the figures of each column with those of any other, and determine not only the measure of each sample represented, but also all the other relations to which we shall have occasion to call attention.

At the foot of each column is found the average for that column. Compared with each other the averages of the different columns show the relative value of each part and of each sample. Collected in the lower portion of the table these averages furnish the data for determination of the general average for each sample. In the latter portion of the table are also collected the extreme measurements taken upon each section, which show the general extremes for the entire sample, while the bottom lines show the number of measurements found above the average and below it, respectively, and, taken in connection with the extremes, furnish a fair indication of the evenness of the fiber in the sample. This is an important relation to manufacturers and should therefore be to breeders; hence it should become a matter of very careful study on the part of all interested in the wool industry. In this lower half of the table we have reduced the measurements from the French to the English standards. The reason for giving two sets of English standards has already been stated, and we need here only express the hope that the figures may be readily understood by all into whose hands they may come.

In a table of detailed results such as these it is difficult for general readers to work out with satisfaction the interesting and valuable relations which more careful study make apparent, and this has led us to collect and arrange in a proper manner the data serving to show what these relations may be and their influence upon the character of the staple under consideration. To render the comparisons more easy the general extremes and averages of Table II for each sample have first been collected in Table III. Here we may more easily obtain a general knowledge of the relative value of the fiber in the fleeces of different animals, but we may study the quality of the different parts of the fleeces as well. As in the previous tables and all subsequent ones, the results are arranged according to the breed to which the sample represented belongs, so that in the comparisons to be made each element not under consideration may be as far as possible left out. In this table neither sex, age, nor other conditions are taken into account. The parts of the fleece in each case may be compared with those of any other, and individual samples may be made the subject of other comparisons. For the several breeds we have at the bottom of each column the general or grand average of all the measurements taken, with the necessary reductions. As regards the fineness of fiber in each breed the question is not at all difficult to determine. This table, like its predecessor, also serves for the construction of subsequent ones showing other important relations.

In Table IV we have collected together from Table III the extremes and averages of the measurements of samples from the same parts of the fleeces of different animals, the figures for each part occupying a separate division of the table. To determine what may be the influence of the part of the fleece upon the quality of the fiber, the measurements of samples from each sex are also separated and placed in different divisions. Thus we have in one division the measurements representing the rams, and in another those representing the ewes, while in each division we have represented, in the first part, the shoulder samples; in the second, the side samples; in the third, the hip samples; and in the fourth, the belly samples. This arrangement will furnish data for interesting study for those especially interested in the uniformity of the quality of the fiber on the different parts of the body of the animal, or, in other words, in a "good covering of wool of uniform quality," as we have heard breeders express it; for this uniformity of quality is often justly considered as desirable as superior fineness, especially in stud flocks. The differences to be found in this particular are better illustrated in Table V, in which we have the averages of all the results heretofore given. First we have the averages for the whole fleece, taken from Table III, then those for the different parts represented in our samples, taken from Table IV, so that this table presents a ready means for comparison of the fineness of the different breeds, as well as that of the different parts of the fleece; and since the figures for each sex are separated from each other, it further serves for the comparison of sex as well. In an adjoining column we have also the figures representing the length of the fiber in crimp in each case. But it must be remembered that these latter figures are of only relative value, since the samples taken were in most cases of only five or six months' growth, and were therefore not of normal length.

As regards the fineness, the Merino of course stands first, and to some extent the fineness varies with the length of the fiber, the longer wools being the coarser. The following synopsis of the table will show the relation in which the several breeds stand to each other in this particular:

Breed.	Average diameter of fiber.
	Centimillimeters.
Merino	2.127
Southdown	2.936
Hampshiredown	3.298
Lincoln	3.707
Leicester	3.879
Cotswold	4.196
Oxforddown	4.365

Between the different parts of the fleece we sometimes find almost inappreciable variations. But as a general rule we find a less vigorous development of the fiber on the belly than upon other parts, and here we find the finer staple. Taken in the order of their comparative fineness, the several parts usually range as follows: belly, shoulder, side, hip. The plan followed by graders in the division of the fleece is therefore justified.

As regards the influence of sex upon the fineness of the fiber, no absolute standard or rule can be established. In the merinos and downs the ewes' wools are generally finer than those of the rams, while in the Cotswold and Lincoln the rams appear to bear the finer staple. These relations are of great interest, and they are amply illustrated in the following statement:

Breed.	Rams' fleece.	Ewes' fleece.
	Centimillimeters.	*Centimillimeters.*
Cotswold	4.227	4.252
Lincoln	3.671	3.774
Southdown	2.940	2.904
Oxforddown	4.269	4.241
Merino	2.215	2.084

Of course there will be found exceptions to the rule here apparently established, for if we look over the table we find that it will not always hold good for the same parts of the fleece, even when confirmed by the average of the whole fleece. Nor will it hold for all animals, so far as our observations have extended; but with further examination it is possible the rule would be more thoroughly established.

In Table VI we have the results collected to show the influence of age upon the fineness of the fiber. Here the sexes have also been separated to eliminate any sex influence that might be exerted, and leave the simple influence of age apparent in each case. As in the other tables, the results are arranged according to the breeds, parts of the fleece, sex, &c., and serve to show the relation in question under all the different phases in which it could be considered. In the classification according to age we begin with the lamb, the age of which is presumably four to six months; then we have exactly six months, then one year, &c. Collecting the general averages of this table and condensing them as in Table VII, the relations in question become more manifest both in different breeds and in different sexes. In neither do we find that the influence is in all cases uniform, and while it appears as a general rule that the diameter of the fiber increases with the age of the animal represented, this increase is more regular and uniform in the coarse wooled breeds than in the merinos, and in the ram than in the ewe.

In Table VIII we come to the effect of the wrinkles or folds of the skin of the merinos upon the fineness of the fiber. These characteristics of the merino breed have been, and it seems must always remain, a matter of dispute among breeders, and the fact presented in the figures here collected cannot fail to prove of interest. Some good authorities in sheep-breeding have held that there is no difference in the fineness of the fiber grown upon the folds and that grown between them; but the results given in these tables directly contradict such a statement, and we must believe that the opinion was based upon general observation rather than upon actual measurement. The tables bearing upon this point will speak for themselves. The several relations of the folds and the fineness of the fiber are shown in Tables VIII to X, inclusive. In the first table we have collected all the individual extremes and averages, showing these relations without regard to other influences. Here we may compare the effect of wrinkle in each animal, or we may compare one animal directly with another with regard to this point. In the second, these figures are classified as to sex and portion of fleece, and in Table X we have the general extremes and averages made out in Tables VIII and IX arranged to show this influence in the sexes, the whole fleece or different parts of the fleece. We also note that these differences are greater in some parts of the fleece than in others, the greatest occurring on the hip, the least on the shoulder, while those of the side are intermediate between the other two. On the neck they vary, in some cases greater, in others less. So also in another portion of the table we find that the

sex influence is marked here, and that in the ram the differences in question are more marked than in the ewe. But, from whatever side we consider the question, the fact remains prominent that the fiber is coarser upon the folds than between them or upon that portion of the skin in which no folds occur.

In view of this fact and the additional fact that the principal value of the fold resides in the increased surface for wool production, we may venture the opinion that since the fiber is very much coarser and the wool upon the folds very thin and short, it will be as well, as a general rule, for breeders to abandon their development by selection. So far as our observations extend, there appears to be no greatly increased production of wool, and since the product upon the fold is so inferior as regards fineness, it would appear of advantage to eliminate the fold if possible.

In Table XI that other disputed question of the relation of crimp in the fine wools to the fineness of the fiber is illustrated. Here we have first collected the individual extremes and averages bearing upon the point at issue. The data are at once classified with reference to sex and portion of the fleece, so that the relation under discussion may become more prominent. All the data are arranged to show the variations which wools having the same crimp may suffer as regards their fineness, and the extremes and averages for the samples having the same crimp are brought together. The general extremes and averages given by this table are afterward collected in the following one, XII, where the comparisons may be more readily made. Here we find the popular notion completely confirmed, fineness of fiber increasing with closeness of the crimp, though the rule is by no means absolute. It has been impossible to determine a definite proportion for this, though it is possible that something of the kind might be developed if more numerous data were at hand. The principal value of this property or relation resides in the fact that it places in the breeders' own hands a ready and comparatively satisfactory means for learning the value of the product. It may not invariably hold good for all samples or all parts of fleeces, but it will serve to show variations in the values of the animals. In all the tables there may be other important relations which we have overlooked, and which will be apparent to those who may have occasion to study them. Our principal object here has been so to arrange the figures as to develop the leading relations bearing upon the value of the fiber and its physical characteristics and to leave them in convenient form for further study by those interested. To us there is much in them to suggest further study, and while there is apparently much of detail throughout, we feel that this cannot fail to serve a useful purpose. We therefore submit the results with the hope that they may prove of all the benefit and advancement to the woolen industry that those interested in the work have expected.

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions.*

	COTSWOLD.																	
Catalogue number of samples..	34. SHOULDER.						34. SIDE.					34. HIP.					34. BELLY.		
Length of fiber in crimp.....	6.5 inches.						4.75 inches.					6 inches.					3.75 inches.		
Number of crimps per inch....	——						——					——					——		
Number of section.....	B^1.	B^2.	B^3.	B^4.	B^{4a}.	B^5.	B^1.	B^2.	B^3.	B^4.	B^5.	B^1.	B^2.	B^3.	B^4.	B^5.	B^1.	B^2.	B^3.
Actual measurement in centimillimeters.	4.0	4.66	6.0	3.33	4.66	3.5	5.0	4.66	5.33	4.66	5.0	3.66	5.33	3.66	5.0	5.33	4.33	4.66	4.38
	4.33	4.22	4.0	5.0	4.66	4.0	4.0	4.66	4.66	4.66	5.0	4.66	6.0	6.0	4.66	4.33	4.33	4.33	4.0
	4.33	4.66	3.833	5.66	4.66	4.5	4.0	5.33	3.33	4.66	4.0	4.66	5.0	6.33	5.33	2.0	3.33	6.0	4.0
	3.66	4.0	4.33	3.66	3.0	4.66	4.0	4.66	5.33	5.33	5.66	3.33	5.0	3.33	3.33	3.33	4.33	4.66	4.0
	4.33	5.0	5.33	4.0	3.33	4.33	4.0	5.0	4.66	5.33	4.33	3.33	5.66	2.66	4.0	4.0	4.66	4.0	4.66
	3.33	4.66	4.66	4.166	5.0	3.333	4.0	5.33	5.33	4.33	4.66	3.66	3.66	5.33	5.66	3.33	3.66	3.33	4.66
	4.0	3.66	4.0	4.833	5.33	3.66	4.0	5.33	4.66	5.66	5.0	4.0	4.66	5.33	5.0	3.66	3.33	5.33	4.33
	3.66	4.66	5.33	5.33	4.33	3.0	4.0	5.0	6.0	3.66	5.0	3.33	4.0	4.33	6.0	4.33	5.33	4.66	3.66
	3.0	4.66	4.66	5.0	4.66	4.66	3.66	4.0	4.66	3.33	3.66	3.33	3.33	6.33	4.0	4.33	4.0	5.66	5.0
	4.0	5.0	4.33	3.66	4.0	4.0	4.66	3.66	5.33	5.33	4.66	3.33	4.0	5.0	2.66	4.33	5.33	4.33	5.33
	5.33	4.66	4.66	5.33	4.0	4.33	4.66	6.0	4.33	6.0	4.0	3.33	5.0	4.66	2.66	5.66	4.0	4.33	4.66
	4.0	3.33	4.66	4.0	5.0	3.66	4.33	4.66	6.0	5.33	5.0	3.33	4.0	4.33	6.0	6.33	4.66	5.33	4.5
	3.66	5.33	4.33	4.33	5.66	4.33	5.33	6.33	6.33	3.33	4.0	3.0	4.66	5.33	5.33	5.33	4.0	4.66	4.66
	4.33	4.66	5.33	4.33	3.33	4.66	4.33	5.33	5.0	4.33	3.33	4.66	5.33	4.0	4.0	2.33	4.33	4.66	4.0
	4.33	4.33	5.0	4.33	3.166	4.33	4.66	5.33	4.33	4.0	4.66	4.66	4.66	3.66	3.33	3.33	4.33	5.33	5.0
	4.66	5.33	4.0	6.33	4.0	3.66	5.33	6.66	5.33	4.66	5.33	5.0	4.66	5.33	5.33	4.33	4.33	4.66	4.0
	4.0	5.0	5.0	6.33	4.33	5.5	4.66	5.33	4.33	4.0	3.5	4.66	4.0	4.66	4.0	5.0	4.66	5.0	4.66
	5.0	4.33	3.0	3.833	3.66	3.66	4.0	4.66	4.33	4.66	4.0	5.0	4.66	3.0	5.66	5.33	5.33	5.0	4.5
	5.66	4.33	5.66	2.66	4.33	3.33	3.66	4.0	4.66	3.66	6.0	4.66	3.66	5.66	5.33	4.0	5.66	4.33	4.5
	4.33	5.0	4.33	4.166	4.0	4.33	5.0	4.66	4.66	2.66	5.33	4.0	3.66	5.33	3.0	4.0	5.33	4.166	5.33
	3.33	5.0	4.0	3.33	4.0	3.33	4.0	4.166	4.33	5.33	4.66	4.66	4.66	2.66	5.33	4.33	4.66	3.66	5.0
	3.66	4.66	4.33	5.0	5.33	4.66	4.66	5.66	3.33	4.66	5.0	4.66	6.0	5.33	6.0	3.33	3.33	4.66	3.66
	5.0	5.0	3.66	6.0	5.66	4.833	5.66	3.33	4.0	4.33	5.33	5.33	5.66	4.33	2.33	5.33	4.0	5.33	4.33
	3.33	5.33	5.66	4.33	3.33	4.33	4.66	4.66	6.0	3.66	3.833	3.33	3.33	4.66	4.0	5.66	3.33	4.5	4.66
	4.166	4.33	5.166	4.0	3.66	5.166	4.66	5.0	6.33	5.33	6.33	2.66	4.66	3.33	6.0	5.0	4.0	4.33	3.66
Averages.....	4.137	4.640	4.619	4.573	4.286	4.150	4.436	4.936	4.903	4.595	4.650	4.009	4.609	4.582	4.613	4.330	4.315	4.666	4.443

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:												
Maximum measurements.	B^1	5.66	2.2283	B^1	5.66	2.2283	B^1	5.33	2.0984	B^1	5.66	2.2283
	B^2	5.33	2.0984	B^2	6.66	2.6220	B^2	6.0	2.3622	B^2	6.0	2.3622
	B^3	6.0	2.3622	B^3	6.33	2.4921	B^3	6.33	2.4921	B^3	5.33	2.0984
	B^4	6.33	2.4921	B^4	6.0	2.3622	B^4	6.0	2.3622	.....	.....	.....
	B^5	5.66	2.2283	B^5	6.0	2.3622	B^5	6.33	2.4921	.....	.....	.....
	B^6	5.50	1.1653	.....	.....	.....	.....	.....	.....	.....	.....	.....
Highest.....	.....	6.33	2.4921	.....	6.66	2.6220	.....	6.33	2.4921	.....	6.0	2.3622
Minimum measurements.	B^1	3.0	1.1811	B^1	3.66	1.4409	B^1	2.66	1.0472	B^1	3.33	1.3110
	B^2	3.33	1.3110	B^2	3.33	1.3110	B^2	3.33	1.3110	B^2	3.33	1.3110
	B^3	3.0	1.1811	B^3	3.33	1.3110	B^3	2.66	1.0472	B^3	3.66	1.4409
	B^4	2.66	1.0472	B^4	2.66	1.0472	B^4	2.33	1.3110	.....	.....	.....
	B^5	3.0	1.1811	[illegible]	3.33	1.3110	B^5	2.0	0.7874	.....	.....	.....
	B^6	3.0	1.1811	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lowest	.....	2.66	1.0472	.....	2.66	1.0472	.....	2.0	0.7874	.....	3.33	1.3110
Average measurements..	B^1	4.137	1.6287	B^1	4.436	1.7464	B^1	4.009	1.5783	B^1	4.315	1.6988
	B^2	4.640	1.8267	B^2	4.936	1.9433	B^2	4.609	1.8145	B^2	4.666	1.8370
	B^3	4.610	1.8149	B^3	4.903	1.9303	B^3	4.582	1.8039	B^3	4.443	1.7492
	B^4	4.573	1.8003	B^4	4.595	1.8090	B^4	4.613	1.8161	.....	.....	.....
	B^5	4.286	1.6873	B^5	4.650	1.8307	B^5	4.330	1.7047	.....	.....	.....
	B^6	4.150	1.6338	.....	.....	.....	.....	.....	.....	.....	.....	.....
Average	.....	4.399	1.7318	.....	4.704	1.8519	.....	4.428	1.7433	.....	4.474	1.7614
Measurements above average..	.....	63		.....	49		.....	64		.....	39	
Measurements below average..	.....	87		.....	76		.....	61		.....	[illegible]	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	COTSWOLD.																	
Catalogue number of samples..	35. SHOULDER.			35. SIDE.				35. HIPS.			35. BELLY.				36. SHOULDER.					
Length of fiber in crimp.....	4. 75 inches.			4. 25 inches.				5. 25 inches.			5. 30 inches.				7. 25 inches.					
Number of crimps per inch	——			——				——			——				——					
Number of section.....	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.
Actual measurement in centimillimeters.	3. 66 3. 33 2. 66 4. 66 4. 0 4. 0 5. 0 3. 33 4. 0 5. 33 3. 66 4. 66 4. 33 4. 66 4. 33 5. 0 5. 0 4. 33 4. 66 5. 0 5. 0 4. 33 4. 33 4. 66 4. 33 5. 0 4. 5	3. 0 4. 0 5. 66 4. 0 4. 66 4. 66 4. 66 3. 66 4. 0 3. 33 4. 66 5. 33 4. 66 5. 33 4. 0 4. 66 4. 0 5. 33 4. 66 4. 66 4. 66 4. 33 4. 0 4. 66 5. 66	4. 33 5. 66 4. 33 5. 0 4. 33 4. 33 4. 66 4. 66 4. 0 5. 5 4. 0 4. 0 5. 0 4. 66 4. 0 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66	4. 66 4. 0 4. 33 4. 33 4. 0 4. 0 4. 33 4. 33 4. 0 4. 33 5. 66 4. 33 3. 0 3. 66 4. 33 4. 83 5. 0 3. 33 3. 66 3. 33 4. 0 3. 33 4. 0 3. 833 5. 0 4. 33	3. 33 5. 33 4. 66 7. 0 4. 66 5. 0 5. 0 5. 0 4. 66 4. 66 5. 0 4. 66 4. 66 3. 66 4. 0 5. 33 4. 66 5. 0 5. 33 4. 66 4. 0 4. 0 5. 33 4. 0 5. 106 5. 66 4. 0 3. 833 5. 0	4. 66 3. 833 5. 0 4. 66 4. 0 4. 0 3. 33 5. 0 4. 66 3. 33 4. 0 3. 66 5. 0 4. 0 4. 0 4. 0 5. 33 3. 66 4. 0 4. 33 4. 0 4. 0 3. 33 4. 66 4. 0 3. 66 4. 33	4. 66 4. 0 5. 33 4. 66 4. 66 3. 33 4. 66 4. 66 4. 0 3. 33 4. 0 5. 33 4. 0 4. 0 4. 0 5. 0 4. 0 4. 0 4. 0 4. 0 4. 0 4. 0 4. 0 4. 0 4. 0 4. 0 4. 0	4. 0 6. 66 4. 66 4. 0 5. 33 4. 33 3. 33 4. 33 3. 33 4. 0 5. 0 4. 66 4. 0 4. 66 3. 33 4. 66 3. 33 4. 0 3. 33 6. 33 5. 33 4. 0 3. 33 4. 0 4. 66 5. 33	4. 0 4. 33 4. 66 4. 66 5. 33 5. 0 3. 33 3. 33 4. 0 3. 33 7. 0 4. 0 5. 33 4. 0 5. 0 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66	3. 33 2. 66 3. 83 4. 66 7. 0 4. 66 2. 66 3. 33 4. 0 4. 0 7. 0 4. 66 5. 33 4. 66 4. 0 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66	4. 0 4. 33 4. 33 4. 66 5. 0 4. 33 4. 66 5. 33 4. 0 5. 66 4. 66 4. 33 5. 33 4. 66 4. 0 4. 33 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66	4. 33 4. 0 4. 33 4. 66 5. 33 4. 66 4. 66 5. 33 4. 0 5. 33 5. 66 4. 33 5. 33 4. 66 4. 0 4. 33 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66	3. 33 4. 0 4. 0 3. 33 4. 0 4. 0 3. 66 4. 66 4. 66 4. 66 4. 0 4. 66 4. 33 4. 33 4. 0 4. 33 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66	3. 66 4. 0 5. 66 4. 0 4. 33 4. 66 4. 0 4. 66 4. 0 4. 66 4. 33 4. 33 4. 66 4. 33 4. 0 4. 33 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66	4. 0 4. 0 5. 66 4. 0 4. 33 4. 66 4. 0 4. 66 4. 0 4. 66 4. 33 4. 33 4. 66 4. 33 4. 0 4. 33 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66	3. 32 4. 0 3. 66 4. 0 4. 33 4. 66 4. 0 4. 66 4. 0 4. 66 4. 33 4. 33 4. 66 4. 33 4. 0 4. 33 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66 4. 66
Averages.....	4. 336	4. 502	4. 283	4. 297	4. 663	4. 370	4. 288	4. 683	4. 317	4. 996	4. 716	4. 770	4. 536	4. 490	3. 766	4. 616	4. 357	4. 037	3. 936	3. 957

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹ B² B³	5. 33 6. 33 5. 66	2. 0984 2. 4921 2. 2283	B¹ B² B³ B⁴	5. 66 7. 0 6. 6 6. 6	2. 2283 2. 7559 2. 3622 2. 3622	B¹ B² B³	6. 66 6. 33 7. 0	2. 6220 2. 4921 2. 7559	B¹ B² B³ B⁴	5. 33 5. 0 5. 66 6. 6	2. 0984 2. 3622 2. 2283 2. 3622	B¹ B² B³ B⁴ B⁵ B⁶	5. 0 5. 0 5. 33 5. 33 5. 33 5. 33	1. 9685 2. 3622 2. 0984 2. 0984 2. 0984 2. 0984
Highest.....	.....	6. 33	2. 4921	.....	7. 0	2. 7559	.....	7. 0	2. 7559	.....	6. 6	2. 6323	.....	6. 0	2. 3622
Minimum measurements.	B¹ B² B³	2. 66 3. 0 3. 0	1. 0472 1. 1811 1. 1811	B¹ B² B³ B⁴	3. 0 3. 33 3. 33 3. 33	1. 1811 1. 3110 1. 3110 1. 3110	B¹ B² B³ B⁴	3. 33 2. 66 2. 66	1. 3110 1. 0472 1. 0472	B¹ B² B³ B⁴	3. 66 3. 66 3. 66 3. 33	1. 4409 1. 4409 1. 4409 1. 3110	B¹ B² B³ B⁴ B⁵ B⁶	2. 66 3. 33 3. 33 2. 0 2. 66 3. 166	1. 0472 1. 3110 1. 3110 0. 7874 1. 0472 1. 2461
Lowest	.....	2. 66	1. 0472	.....	3. 0	1. 1811	.....	2. 66	1. 0472	.....	3. 33	1. 3110	.....	2. 0	0. 7874
Average measurements..	B¹ B² B³	4. 336 4. 502 4. 283	1. 7070 1. 7724 1. 6862	B¹ B² B³ B⁴	4. 297 4. 663 4. 370 4. 288	1. 6917 1. 8358 1. 7204 1. 6881	B¹ B² B³	4. 503 4. 317 4. 996	1. 7728 1. 6996 1. 6102	B¹ B² B³ B⁴	4. 716 4. 770 4. 556 4. 490	1. 8566 1. 8779 1. 7936 1. 7677	B¹ B² B³ B⁴ B⁵ B⁶	3. 766 4. 616 4. 357 4. 037 3. 936 3. 957	1. 4826 1. 8173 1. 7153 1. 5893 1. 5496 1. 5578
Average.....	.....	4. 373	1. 6216	.....	4. 404	1. 7338	.....	4. 303	1. 6944	.....	4. 633	1. 8240	.....	4. 111	1. 6185
Measurements above average..	.....	24		.....	45		.....	24		.....	28		.....	99	
Measurements below average..	.....	41		.....	55		.....	41		.....	42		.....	81	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	COTSWOLD.																	
Catalogue number of samples..	36. SIDE.						36. HIP.						36. BELLY.					
Length of fiber in crimp.....	8¼ inches.						8 inches.						5½ inches.					
Number of crimps per inch....	——						——						——					
Number of section.....	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.	B¹ᵃ.	B²ᵃ.	B³ᵃ.	B⁴ᵃ.	B¹ᵇ.	B²ᵇ.
Actual measurement in centimillimeters.	3.66	3.33	3.66	3.0	4.66	5.33	4.0	4.5	4.66	4.0	3.33	4.66	5.0	4.66	4.66	4.0	4.66	4.66
	4.66	4.0	4.33	4.33	4.66	4.0	3.33	3.33	3.66	4.66	3.33	4.66	4.66	3.66	4.0	4.0	4.66	4.0
	3.66	4.66	4.0	3.0	5.0	4.33	3.33	3.33	4.66	4.33	3.33	4.0	4.0	5.0	6.0	3.0	5.0	4.0
	5.0	3.66	3.33	4.0	4.33	5.33	3.66	4.33	4.0	4.0	2.66	3.0	4.33	4.0	4.33	4.0	4.66	4.0
	4.0	5.33	5.66	3.66	5.0	3.66	4.33	4.33	4.66	5.0	6.0	5.33	4.33	5.0	4.0	4.0	4.66	4.66
	3.33	3.66	4.0	4.66	3.33	4.0	3.0	4.33	5.33	3.66	4.33	3.33	4.33	4.0	4.33	4.0	4.66	4.66
	5.0	3.33	4.66	4.0	4.0	4.33	3.66	3.66	4.0	4.0	4.66	3.66	4.0	4.0	4.33	4.33	4.66	4.66
	4.33	5.0	4.66	4.0	4.0	4.0	3.66	4.66	4.33	3.33	4.33	5.0	4.166	4.0	4.66	4.33	3.0	4.66
	5.0	2.33	5.0	3.33	4.0	2.66	4.33	4.0	5.0	3.0	3.66	4.33	4.33	4.66	4.66	4.0	5.0	4.33
	4.0	4.66	2.33	4.0	3.66	4.0	3.33	5.66	5.0	2.66	2.0	3.66	4.0	4.66	4.0	4.66	4.66	5.33
	4.33	4.0	3.66	4.66	4.66	3.33	3.66	4.33	5.0	4.66	3.66	4.66	4.0	4.0	4.0	2.0	4.33	4.33
	4.0	4.66	5.33	4.0	3.66	3.33	4.0	5.33	4.66	4.0	3.0	4.66	4.33	4.33	4.33	2.66	4.66	5.33
	2.66	4.0	4.0	4.66	4.66	4.66	3.66	4.33	2.66	4.66	5.33	4.0	4.33	4.33	4.0	4.0	5.0	3.33
	4.66	5.33	5.33	3.66	4.33	3.0	3.66	2.66	3.33	5.0	3.33	4.66	4.0	4.66	4.33	3.833	4.33	4.33
	3.0	3.66	4.0	4.0	4.0	4.66	4.0	5.66	5.0	3.66	3.66	3.66	4.33	5.0	4.66	3.33	4.66	5.33
	4.33	4.66	4.0	4.66	4.0	4.0	4.0	5.0	5.0	4.33	4.0	4.0	3.33	4.5	4.0	3.5	4.33	4.33
	4.33	5.0	3.66	4.0	5.33	4.0	4.0	5.33	5.0	2.66	4.66	4.33	4.33	4.33	4.0	4.5	4.33	3.833
	5.166	5.0	3.66	4 0	4.0	4.0	3.33	3.66	5.33	4.33	4.0	3.66	4.66	4.0	4.166	3.66	4.0	5.0
	4.66	4.66	4.33	4.0	4.66	4.0	4.0	5.33	4.66	5.33	5.33	2.0	4.66	4.33	4.66	3.66	4.66	4.33
	3.66	2.0	5.33	3.33	3.66	3.33	4.33	4.0	4.33	4.66	4.33	4.33	4.0	4.33	3.833	3.33	4.5	4.33
	5.66	3.833	5.0	4.33	5.0	3.66	4.0	2.66	2.66	4.66	4.0	4.33	4.0	4.33	4.0	3.166	4.33	4.66
	4.33	4.66	3.33	4.0	4.33	4.33	4.66	4.66	4.66	5.33	5.0	4.66	4.0	5.0	3.166	4.0	4.66	4.66
	4.833	5.0	4.0	4.66	4.0	4.66	4.0	4.0	4.33	3.66	4.0	2.5	4.5	4.33	4.33	3.33	3.66	4.0
	5.0	4.66	5.33	3.833	5.0	4.66	4.0	4.66	4.33	4.33	4.66	2.833	4.0	3.833	3.33	4.66	4.33	4.66
	5.0	3.33	4.66	3.33	3.166	4.166	4.0	5.0	4.66	3.66	5.0	4.5	4.33	3.33	4.66	3.33	4.5	3.833
	4.66	4.66	4.33	3.833	3.66	4.5	4.0	3.33	4.66	4.0	5.33	4.5	3.33	4.0	4.66	4.0	4.166	4.0
	3.33	4.66	4.0	3.66	3.833	4.33	4.0	3.33	5.33	4.66	3.33	4.5	4.0	4.0	3.833	3.33	4.5	3.5
	5.166	4.0	3.33	4.0	4.66	3.5	4.0	3.33	3.33	4.0	4.0	4.66	4.0	4.0	4.66	2.833	4.0	4.0
	3.166	3.833	5.5	5.0	4.33	2.833	3.66	4.0	4.66	4.66	4.33	3.166	4.33	3.33	4.0	4.166	4.33	4.33
	3.833	5.66	4.166	4.5	4.66	4.166	4.0	4.0	5.33	4.33	4.5	3.33	4.0	4.33	4.0	3.833	3.833	3.33
Averages.....	4.280	4.239	4.285	4.003	4.274	4.024	3.866	4.256	4.477	4.388	4.102	4.118	4.186	4.264	4.252	3.714	4.457	4.346

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:									
Maximum measurements.	B¹	5.66	2.2283	B¹	4.66	1.8346	B¹ᵃ	5.0	1.9685
	B²	5.66	2.2283	B²	5.66	2.2283	B²ᵃ	5.0	1.9685
	B³	5.66	2.2283	B³	5.33	2.0984	B³ᵃ	6.0	2.3622
	B⁴	5.0	1.9685	B⁴	5.33	2.0984	B⁴ᵃ	4.66	1.8346
	B⁵	5.33	2.0984	B⁵	6.0	2.3622	B¹ᵇ	5.0	1.9685
	B⁶	5.33	2.0984	B⁶	5.33	2.0984	B²ᵇ	5.33	2.0984
Highest.....	.....	5.66	2.2283	.....	6.0	2.3622	.....	6.0	2.3622
Minimum measurements.	B¹	3.0	1.1811	B¹	3.0	1.1811	B¹ᵃ	3.33	1.3110
	B²	2.0	0.7874	B²	2.66	1.0472	B²ᵃ	3.33	1.3110
	B³	2.33	0.9173	B³	2.66	1.0472	B³ᵃ	3.166	1.2464
	B⁴	3.0	1.1811	B⁴	2.66	1.0472	B⁴ᵃ	2.0	0.7874
	B⁵	3.166	1.2464	B⁵	2.0	0.7874	B¹ᵇ	3.66	1.4509
	B⁶	2.66	1.0472	B⁶	2.0	0.7874	B²ᵇ	3.33	1.3110
Lowest	.....	2.0	0.7874	.....	2.0	0.7874	.....	2.0	0.7874
Average measurements..	B¹	4.280	1.6850	B¹	3.866	1.5220	B¹ᵃ	4.186	1 6480
	B²	4.239	1.6688	B²	4.256	1.6755	B²ᵃ	4.264	1.6787
	B³	4.285	1.6870	B³	4.477	1.7625	B³ᵃ	4.252	1.6740
	B⁴	4.003	1.5759	B⁴	4.388	1.7275	B¹ᵃ	3.714	1.4622
	B⁵	4.274	1.6826	B⁵	4.102	1.6149	B¹ᵇ	4.457	1.7547
	B⁶	4.024	1.5842	B⁶	4.018	1.5818	B²ᵇ	4.346	1.7110
Average.....	.....	4.184	1.6472	.....	4.184	1.6472	.....	4.203	1.6547
Measurements above average..		84			89			95	
Measurements below average..		96			91			85	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

COTSWOLD.

Catalogue number of samples	37. SHOULDER.						37. SIDE.						37. HIP.						
Length of fiber in crimp	9½ inches.						9½ inches.						9 inches.						
Number of crimps per inch	——						——						——						
Number of section	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.	B⁷.
Actual measurement in centimillimeters.	5.66	5.0	4.66	5.0	2.0	3.33	4.66	4.0	1.666	4.33	4.33	3.33	5.66	5.33	5.33	5.33	5.33	5.33	5.33
	4.66	3.33	6.33	4.0	4.33	2.0	5.66	4.0	5.0	4.66	3.66	2.66	5.0	4.66	6.0	5.66	4.66	4.66	5.33
	4.0	4.66	4.66	4.0	4.0	2.66	4.33	4.66	4.0	4.66	4.0	4.34	5.33	4.66	6.0	4.66	5.33	5.66	3.66
	4.0	3.66	4.66	3.33	4.0	4.0	5.33	4.66	4.0	4.66	5.33	3.33	4.0	5.33	4.66	6.0	5.33	4.66	3.0
	3.33	4.0	4.33	4.0	3.33	5.0	4.0	5.33	4.0	4.66	5.33	4.66	4.66	6.0	5.33	5.33	5.33	4.0	4.66
	4.66	4.66	4.0	5.0	3.33	4.33	3.66	5.0	5.0	4.0	4.66	4.33	5.33	5.66	5.66	5.0	5.33	3.66	5.33
	4.66	3.33	4.33	5.0	3.33	4.33	4.66	5.66	3.66	3.33	2.0	4.66	5.33	5.33	5.0	3.33	6.33	5.33	4.33
	4.66	6.0	4.0	4.66	5.0	4.66	4.0	4.0	4.33	5.33	4.0	4.66	4.66	6.66	6.66	4.66	5.0	5.66	5.0
	3.33	4.66	5.0	4.0	2.66	4.0	4.33	4.33	3.66	4.0	3.33	4.0	5.0	6.0	5.33	5.33	5.33	4.66	3.66
	4.33	3.0	3.33	3.66	3.66	3.0	5.0	6.0	4.66	4.0	4.0	3.33	5.0	5.33	4.0	4.66	4.0	4.66	4.0
	5.33	5.0	4.33	4.0	4.33	4.66	4.0	5.66	4.66	4.0	3.33	3.66	4.66	5.33	5.0	5.33	5.33	6.0	3.66
	5.33	4.66	4.66	4.0	3.0	5.33	4.33	4.66	4.33	4.0	4.0	5.0	5.66	5.0	5.33	5.66	4.33	5.66	4.33
	3.66	5.33	4.66	5.66	4.0	3.33	4.66	4.66	4.66	3.33	4.33	2.66	5.33	5.0	6.33	4.66	4.66	6.0	5.0
	4.66	4.66	4.33	4.0	4.0	4.33	4.33	4.0	4.0	3.33	4.0	4.66	4.0	4.66	5.33	4.33	5.33	4.66	4.33
	4.0	4.0	4.66	5.33	3.33	3.33	3.33	4.66	4.0	5.0	3.0	3.66	5.33	5.34	5.66	6.0	5.66	5.66	5.66
	4.66	5.66	5.0	5.0	5.33	4.66	4.66	4.66	4.33	4.66	5.0	3.66	5.33	5.66	5.0	4.66	5.33	4.33	4.66
	5.0	4.66	4.33	3.66	3.66	2.33	3.66	4.66	5.33	4.0	3.33	4.166	4.166	7.0	6.0	5.33	6.66	5.0	4.0
	4.33	5.33	3.0	5.33	5.33	4.0	4.0	5.833	3.33	4.66	4.0	4.34	5.33	5.33	5.0	5.33	5.33	4.66	5.33
	5.0	5.33	4.0	3.66	4.33	4.0	4.0	4.33	5.33	4.0	4.0	3.0	5.0	5.33	6.0	4.33	5.33	5.33	5.0
	3.33	4.166	4.66	3.0	2.33	4.66	4.0	5.0	5.0	3.0	5.0	4.5	5.33	5.0	4.0	5.66	5.33	5.34	5.33
	4.66	5.33	3.66	3.33	4.33	4.33	4.66	5.66	4.0	4.33	4.0	4.66	5.33	5.0	5.33	4.66	4.0	5.33	4.0
	5.33	5.0	4.66	2.0	5.33	5.166	4.66	4.0	4.33	4.33	4.66	4.33	4.66	4.66	6.0	5.0	4.66	5.166	4.33
	3.66	6.33	4.33	4.0	4.66	3.33	4.66	4.0	3.0	4.66	2.66	4.5	4.66	4.66	5.33	5.0	5.33	5.33	4.0
	4.66	3.66	4.66	4.66	5.66	3.166	5.0	5.66	5.66	5.33	3.33	5.33	4.66	5.66	5.33	4.33	4.66	5.0	4.0
	4.66	4.33	3.66	4.66	4.0	3.66	4.0	4.0	4.66	4.66	3.66	3.0	4.66	4.66	5.33	5.66	5.33	5.33	4.66
	3.33	4.0	5.66	3.66	3.33	3.5	5.0	4.0	4.0	4.833	5.66	4.66	4.66	5.0	5.166	5.33	4.66	4.5	4.0
	4.66	4.66	5.166	4.0	3.5	3.66	5.33	3.833	3.66	4.66	3.33	3.833	5.0	4.66	5.66	4.0	4.33	5.33	5.33
	4.66	5.66	4.66	4.66	3.166	2.0	4.66	4.5	4.5	4.33	4.0	4.5	4.5	5.66	6.33	4.66	5.0	4.33	5.5
	5.33	5.0	5.33	5.33	3.0	3.833	4.33	4.5	5.0	2.66	3.166	3.33	5.0	5.66	5.0	5.0	4.5	4.66	
	4.66	4.166	5.66	4.0	3.833	3.33	3.833	5.166	3.33	5.0	4.0	3.33	5.33	5.166	5.33	5.166	5.66	5.166	4.5
Averages	4.384	4.734	4.551	4.153	3.696	3.719	4.424	4.502	4.233	4.280	3.903	3.919	4.972	5.312	5.425	4.957	5.107	5.029	4.619

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:									
Maximum measurements.	B¹	5.33	2.0984	B¹	5.66	2.2283	B¹	5.66	2.2283
	B²	6.33	2.4921	B²	6.0	2.3622	B²	7.0	2.7559
	B³	6.33	2.4921	B³	5.33	2.0984	B³	6.66	2.6220
	B⁴	5.33	2.0984	B⁴	5.33	2.0984	B⁴	6.0	2.3622
	B⁵	5.66	2.2283	B⁵	5.66	2.2283	B⁵	6.33	2.4921
	B⁶	5.33	2.0984	B⁶	5.0	1.9685	B⁶	6.0	2.3622
							B⁷	6.0	2.3622
Highest		6.33	2.4921		6.0	2.3622		7.0	2.7559
Minimum measurements.	B¹	3.33	1.3110	B¹	3.33	1.3110	B¹	4.0	1.5748
	B²	3.0	1.1811	B²	4.66	1.4509	B²	4.66	1.8346
	B³	3.0	1.1811	B³	4.0	1.1811	B³	4.0	1.5748
	B⁴	2.0	0.7874	B⁴	2.66	1.0472	B⁴	3.33	1.3110
	B⁵	2.0	0.7874	B⁵	2.0	0.7874	B⁵	4.0	1.5748
	B⁶	2.0	0.7874	B⁶	2.33	0.9173	B⁶	3.66	1.4509
							B⁷	3.66	1.4509
Lowest		2.0	0.7874		2.0	0.7874		3.33	1.3110
Average measurements.	B¹	4.384	1.7260	B¹	4.424	1.7417	B¹	4.972	1.9574
	B²	4.734	1.8598	B²	4.502	1.7724	B²	5.312	2.0913
	B³	4.551	1.7917	B³	4.233	1.6665	B³	5.425	2.1358
	B⁴	4.153	1.6350	B⁴	4.280	1.6850	B⁴	4.957	1.9515
	B⁵	3.896	1.5338	B⁵	3.903	1.5366	B⁵	5.107	2.0106
	B⁶	3.719	1.4641	B⁶	3.919	1.5429	B⁶	5.029	1.9803
							B⁷	4.169	1.6413
Average		4.237	1.0641		4.210	1.6574		4.995	1.9665
Measurements above average		93			93			135	
Measurements below average		81			87			75	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	COTSWOLD.																		
Catalogue number of samples..	37. BELLY.				38. SHOULDER.				38. SIDE.				38. HIP.				38. BELLY.		
Length of fiber in crimp	5¾ inches.				4 inches.				4½ inches.				5½ inches.				3¼ inches.		
Number of crimps per inch	——				——				——				——				——		
Number of section.....	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.
Actual measurement in centimillimeters.	4.66	4.0	4.0	3.33	4.0	3.33	5.66	4.33	5.33	3.33	3.33	4.66	5.0	5.33	5.0	5.0	4.33	4.0	3.66
	4.0	3.33	4.0	6.0	4.0	4.66	5.66	3.66	4.66	4.66	4.66	5.33	4.66	5.33	5.0	3.66	5.0	4.0	3.66
	4.0	4.66	4.66	4.0	3.66	4.66	4.0	3.66	4.0	4.66	3.66	4.66	4.66	5.0	5.66	5.0	4.66	4.0	5.66
	4.0	5.33	4.66	4.66	4.33	4.66	4.66	3.33	5.0	5.33	3.33	5.0	6.0	5.33	5.0	5.33	4.0	4.0	2.66
	3.0	5.0	4.66	6.0	4.66	3.66	5.0	4.33	4.66	5.0	4.33	5.33	5.0	6.0	4.66	5.33	4.33	6.0	4.0
	4.33	5.0	4.66	2.33	4.33	5.33	3.33	5.0	4.66	6.0	4.0	5.66	4.66	5.66	5.33	5.0	3.66	4.0	3.33
	3.33	4.66	4.66	5.33	4.0	4.00	5.33	4.0	4.66	4.66	3.33	5.66	4.66	6.0	5.0	6.0	4.33	4.33	3.0
	4.0	4.66	2.66	4.0	4.66	4.66	5.33	3.66	5.32	4.0	4.33	4.66	5.33	6.66	4.66	5.66	5.33	4.66	3.33
	4.0	4.66	4.66	3.66	4.0	5.33	5.0	4.66	4.66	5.0	4.66	4.0	4.66	5.33	5.33	5.33	5.33	4.33	4.0
	5.0	5.0	3.66	4.0	4.0	4.66	4.0	3.33	5.33	4.66	4.66	4.33	5.33	5.33	4.0	4.0	5.33	4.66	3.33
	5.0	4.66	5.0	4.66	4.0	5.0	3.33	4.0	4.0	5.66	4.33	3.66	5.0	5.33	4.66	4.66	4.66	3.66	3.66
	4.66	4.33	4.0	5.0	4.0	4.0	4.66	4.0	3.33	4.0	3.33	4.33	5.0	4.66	5.0	5.33	3.33	3.66	4.33
	5.0	4.66	4.66	5.0	5.0	5.33	3.66	4.66	4.0	4.0	5.0	3.0	4.66	5.0	5.0	5.33	3.33	4.66	4.66
	4.66	4.66	3.33	5.0	4.66	4.66	4.66	3.33	4.33	4.66	5.0	4.33	4.33	4.33	5.0	5.0	4.0	4.0	4.66
	5.0	5.33	4.66	4.33	4.66	4.66	5.33	4.33	4.66	5.33	4.33	3.66	5.33	5.0	5.66	5.66	5.33	4.0	3.0
	3.33	4.66	4.33	4.0	4.66	5.66	4.66	4.33	5.0	5.66	3.0	3.66	5.0	6.0	4.33	5.66	4.66	4.66	4.33
	4.0	5.0	4.33	3.833	4.33	5.0	3.66	4.0	4.66	4.66	3.33	5.0	5.33	5.833	4.0	4.66	5.33	4.0	4.0
	4.33	5.0	5.0	4.5	3.66	5.0	4.66	4.0	5.0	5.0	4.66	3.66	4.66	5.33	6.0	5.33	4.0	4.0	5.33
	4.66	4.0	4.0	4.0	5.33	4.33	5.66	4.0	4.33	6.0	4.0	3.0	5.33	5.833	4.33	4.66	4.66	4.66	4.66
	4.0	4.66	3.33	5.33	4.66	3.33	3.66	2.66	4.66	5.0	3.0	4.0	5.0	4.66	4.66	4.66	4.0	3.66	2.33
	4.66	5.66	4.0	4.33	4.66	4.0	4.0	4.0	4.33	4.66	4.66	4.33	4.5	5.0	6.0	4.5	4.66	4.0	4.0
	4.66	6.33	4.833	5.166	4.33	4.66	5.0	4.33	5.0	5.33	4.0	4.66	4.66	4.833	4.66	4.33	4.66	4.0	4.66
	4.33	4.33	4.66	5.0	4.0	4.0	5.33	4.0	5.33	5.33	4.0	3.0	4.33	4.66	5.33	5.166	4.66	3.0	4.0
	4.33	4.33	4.33	4.66	4.66	5.0	3.33	4.0	5.0	5.66	4.66	3.66	5.33	5.0	5.33	4.66	6.33	3.66	4.66
	4.0	4.66	5.66	4.66	4.0	4.66	4.33	4.0	5.166	2.33	4.0	4.0	5.0	5.166	4.66	5.33	4.33	2.66	4.66
	4.33	4.0	4.33	5.166	4.66	3.33	4.66	2.0	4.833	3.0	4.66	4.66	4.833	4.33	5.0	3.833	5.0	3.33	3.33
	4.66	5.0	4.33	5.0	4.66	4.0	4.66	3.66	4.0	4.0	4.0	4.66	5.0	5.33	4.33	3.33	5.33	5.0	3.33
	4.66	5.0	3.33	4.66	4.33	4.0	4.66	4.33	4.0	4.66	4.66	2.66	4.66	5.166	5.0	4.5	4.66	4.0	4,0
	4.33	3.33	3.833	4.0	3.66	5.33	2.66	4.66	3.833	4.66	4.66	4.33	4.66	5.66	5.166	5.166	4.0	4.66	3.66
	4.0	4.0	3.66	4.66	3.833	4.66	4.0	4.0	3.66	4.33	5.33	3.33	5.166	5.0	5.33	4.66	5.33	4.33	4.66
Averages	4.197	4.663	4.262	4.542	4.313	4.515	4.457	3.944	4.580	4.707	4.163	4.229	4.929	5.266	4.802	4.891	4.615	4.088	3.985

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	5.0	1.9685	B¹	5.33	2.0984	B¹	5.33	2.0984	B¹	6.0	2.3622	B¹	6.33	2.4921
	B²	6.33	2.4921	B²	5.66	2.2283	B²	6.0	2.3622	B²	6.66	2.6220	B²	6.0	2.3622
	B³	5.66	2.2283	B³	5.66	2.2283	B³	5.33	2.0984	B³	6.0	2.3622	B³	5.66	2.2283
	B⁴	6.0	2.3622	B⁴	5.0	1.9685	B⁴	5.66	2.2283	B⁴	6.0	2.3622	B⁴	.....	.....
Highest	.....	6.33	2.4921	.....	5.66	2.2283	.....	6.0	2.3622	.....	6.66	2.6220	.....	6.33	2.4921
Minimum measurements.	B¹	3.0	1.1811	B¹	3.66	1.4509	B¹	3.33	1.3110	B¹	4.33	1.7047	B¹	3.33	1.3110
	B²	3.33	1.3110	B²	3.33	1.3110	B²	2.33	0.9173	B²	4.33	1.7047	B²	3.0	1.1811
	B³	2.66	1.0472	B³	2.66	1.0472	B³	3.0	1.1811	B³	4.0	1.5748	B³	3.0	1.1811
	B⁴	2.33	0.9173	B⁴	2.0	0.7874	B⁴	2.66	1.0472	B⁴	3.33	1.3110	B⁴	.....	.....
Lowest	.....	2.33	0.9173	.....	2.0	0.7874	.....	2.33	0.9173	.....	3.33	1.3110	.....	3.0	1.1811
Average measurements..	B¹	4.197	1.6523	B¹	4.313	1.6980	B¹	4.580	1.8031	B¹	4.929	1.9405	B¹	4.615	1.8169
	B²	4.663	1.8358	B²	4.515	1.7775	B²	4.707	1.8531	B²	5.266	2.0732	B²	4.088	1.6094
	B³	4.262	1.6779	B³	4.451	1.7523	B³	4.163	1.6389	B³	4.802	1.8976	B³	3.985	1.5688
	B⁴	4.542	1.7881	B⁴	3.944	1.5527	B⁴	4.229	1.6649	B⁴	4.891	1.9255	B⁴	.....	.....
Average	.....	4.416	1.7385	.....	4.305	1.6948	.....	4.419	1.7397	.....	4.972	1.9574	.....	4.220	1.6649
Measurements above average..	.....	64		.....	38		.....	65		.....	76		.....	44	
Measurements below average..	.....	56		.....	54		.....	55		.....	44		.....	46	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

COTSWOLD.

Catalogue number of samples	39. SHOULDER.				39. SIDE.				39. HIP.				39. BELLY.			109. ——.				
Length of fiber in crimp	4½ inches.				4½ inches.				5½ inches.				3½ inches.			——				
Number of crimps per inch	——				——				——				——			——				
Number of section	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B⁵.
Actual measurement in centimillimeters.	3.33	3.33	4.0	4.0	4.66	4.33	2.66	4.66	4.0	4.33	5.0	5.66	4.0	3.33	5.33	3.125	3.5	3.25	2.5	2.75
	4.0	4.33	4.33	4.0	4.66	4.0	3.33	4.33	4.33	4.66	4.66	3.33	3.0	4.0	4.66	3.75	2.25	3.5	3.0	2.25
	4.0	4.0	4.66	5.0	4.0	3.33	4.0	5.33	4.66	5.33	5.0	5.33	4.0	4.0	4.66	2.75	3.0	3.5	3.0	3.5
	3.66	3.33	4.0	4.33	5.0	3.5	4.66	4.66	4.33	4.66	4.33	4.5	4.0	4.33	5.0	3.375	3.5	3.5	3.0	3.5
	5.33	4.66	3.33	5.33	4.33	5.0	3.33	4.66	4.66	4.66	4.66	4.33	3.66	4.66	4.66	1.5	3.0	3.0	3.0	2.75
	5.33	4.66	2.66	4.66	4.66	3.33	4.66	4.0	4.0	4.66	5.33	4.66	4.0	4.33	3.33	3.0	3.25	3.5	3.0	3.25
	2.66	3.33	3.0	4.0	5.66	4.33	2.66	5.0	4.33	4.33	4.33	4.66	4.33	4.0	4.0	2.5	1.5	2.25	2.25	2.5
	3.66	3.33	4.0	3.33	4.0	3.33	5.0	5.33	4.33	4.33	3.66	4.66	4.66	5.66	4.33	1.75	2.75	2.75	2.75	3.0
	4.0	5.33	3.33	4.33	3.33	5.0	4.0	5.33	4.33	5.33	4.33	3.66	4.0	3.66	5.66	2.875	3.25	3.25	3.0	3.0
	4.0	3.33	4.66	4.66	4.66	4.66	5.0	5.0	3.0	4.66	4.0	5.33	4.0	4.0	4.0	2.875	3.5	3.5	3.5	3.25
	4.0	4.0	4.33	3.66	4.0	3.66	5.33	4.33	5.0	5.66	4.66	4.66	4.66	5.33	3.166	2.5	3.0	2.25	2.5	3.25
	2.66	4.0	5.0	3.0	4.66	4.66	4.66	5.33	4.0	5.0	4.66	4.0	4.0	4.0	4.66	3.5	4.25	2.25	3.5	3.5
	3.33	4.0	3.0	3.33	4.0	4.66	4.66	4.66	4.0	4.0	4.66	4.66	5.33	3.33	3.66	3.0	2.0	3.5	3.25	3.5
	3.66	4.33	4.66	5.66	2.66	4.0	4.66	5.33	4.66	4.33	4.0	4.0	4.0	4.66	5.0	2.0	2.75	2.75	3.0	3.5
	5.0	4.66	4.33	3.66	4.66	4.0	3.66	4.0	4.66	3.33	5.0	3.5	3.33	3.66	3.33	2.5	2.5	2.75	3.5	2.25
	4.0	4.66	4.66	4.33	5.33	4.0	4.66	4.33	4.66	4.66	5.0	5.33	3.66	5.0	3.33	2.375	3.5	3.5	3.75	3.5
	4.66	3.33	4.33	3.0	3.66	5.33	5.0	5.0	4.66	4.33	4.33	4.66	6.33	4.66	3.66	1.75	3.5	3.75	3.0	3.0
	5.0	4.33	3.0	4.0	4.66	5.66	4.33	5.0	3.33	4.0	5.0	4.66	4.0	4.0	3.33	3.25	3.5	2.5	4.25	3.5
	5.0	2.66	4.66	3.0	3.33	4.66	5.0	3.0	5.0	5.0	4.66	3.33	4.66	4.66	4.0	3.0	3.0	3.5	2.5	3.5
	3.33	4.0	3.33	4.0	3.0	4.33	5.0	4.66	4.0	4.66	5.33	4.66	4.33	4.66	3.66	2.75	3.5	2.75	3.0	3.5
	4.66	4.0	4.33	4.0	4.0	5.66	5.33	3.0	4.33	4.66	4.0	5.33	4.0	4.66	3.66	3.0	2.5	2.5	3.25	3.5
	3.33	3.33	3.66	4.66	4.33	6.0	5.0	4.0	5.0	5.66	4.33	3.0	6.5	3.833	3.33	3.25	3.75	3.25	2.75	3.25
	4.33	3.66	3.33	4.66	3.66	4.66	5.33	3.66	3.0	3.66	4.0	5.66	3.33	3.66	4.33	3.0	2.75	3.0	2.5	3.5
	4.0	4.0	4.66	4.0	3.33	4.66	4.66	4.33	4.66	4.0	3.33	5.66	3.0	3.833	3.33	3.0	2.5	2.75	2.76	3.0
	3.33	3.66	4.33	4.66	3.66	4.66	4.66	4.5	4.66	3.66	5.33	4.33	3.33	4.66	2.66	2.875	3.5	3.5	3.0	3.0
	3.33	3.66	3.33	4.0	4.66	2.0	4.0	4.5	5.0	3.66	5.0	4.66	4.0	4.66	3.66	2.75	3.5	3.0	3.25	3.0
	4.0	5.33	4.33	5.0	3.33	4.66	4.0	4.33	4.66	4.33	5.33	3.66	3.833	3.66	4.0	2.875	3.0	2.75	3.25	3.5
	3.33	4.33	5.66	3.0	3.33	3.33	5.33	4.0	5.0	4.0	5.66	3.66	6.166	7.0	3.833	2.875	3.25	3.25	3.25	2.5
	4.33	4.66	4.33	4.66	5.0	4.66	4.33	5.166	5.0	5.33	5.0	4.33	4.66	5.0	4.66	3.375	3.0	3.0	2.5	2.75
	3.66	4.33	3.66	3.33	5.33	4.66	5.0	3.33	4.66	4.0	4.33	4.33	3.66	3.66	3.33	2.625	3.5	2.25	2.5	3.25
Averages	3.920	4.085	4.163	4.175	4.151	4.357	4.363	4.391	4.397	4.496	4.620	4.556	4.214	4.385	4.397	2.791	3.075	3.041	3.000	3.063

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	5.33	2.0984	B¹	5.66	2.2283	B¹	5.0	1.9685	B¹	6.5	2.5591	B¹	3.5	1.3779
	B²	5.66	2.2283	B²	5.66	2.3622	B²	5.66	2.2283	B²	7.0	2.7559	B²	4.25	1.6732
	B³	5.66	2.2283	B³	5.33	2.0984	B³	5.66	2.2283	B³	6.0	2.3622	B³	4.75	1.4763
	B⁴	5.66	2.2283	B⁴	6.0	2.3622	B⁴	5.66	2.2283	.....	.....	.....	B⁴	4.25	1.6732
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B⁵	3.5	1.3779
Highest	.....	5.66	2.2283	.....	6.0	2.3622	.....	5.66	2.2283	.....	7.0	2.7559	.....	4.25	1.6732
Minimum measurements.	B¹	2.66	1.0472	B¹	2.0	0.7874	B¹	2.0	1.1811	B¹	3.0	1.1811	B¹	1.5	0.5905
	B²	3.66	1.0472	B²	2.0	0.7874	B²	3.33	1.3110	B²	3.33	1.3110	B²	1.5	0.5905
	B³	2.66	1.0472	B³	2.0	0.7874	B³	3.33	1.3110	B³	2.66	1.0472	B³	2.25	0.8858
	B⁴	3.0	1.1811	B⁴	3.33	1.3110	B⁴	3.33	1.3110	.....	.....	.....	B⁴	2.25	0.8858
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B⁵	2.25	0.8858
Lowest	.....	2.66	1.0472	.....	2.0	0.7874	.....	3.3	1.1811	.....	2.66	1.0472	.....	1.5	0.5905
Average measurements.	B¹	3.920	1.5472	B¹	4.151	1.6342	B¹	4.397	1.7310	B¹	4.214	1.6590	B¹	2.791	1.0986
	B²	4.085	1.6082	B²	4.357	1.7153	B²	4.496	1.7700	B²	4.385	1.7263	B²	3.075	1.2106
	B³	4.163	1.6389	B³	4.363	1.7177	B³	4.630	1.8228	B³	3.907	1.5381	B³	3.041	1.1972
	B⁴	4.175	1.6436	B⁴	4.691	1.8468	B⁴	4.556	1.7936	.....	.....	.....	B⁴	3.000	1.1811
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B⁵	3.063	1.2187
Average	.....	4.088	1.6094	.....	4.390	1.7283	.....	4.519	1.7786	.....	4.135	1.6279	.....	2.998	1.1803
Measurements above average	.....	54		.....	66		.....	67		.....	33		.....	11	
Measurements below average	.....	66		.....	54		.....	53		.....	88		.....	23	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	COTSWOLD.																		
Catalogue number of samples..	170. SHOULDER.			170. SIDE.			170. HIP.			170. BELLY.			171. SHOULDER.			171. SIDE.			
Length of fiber in crimp	3⅞ inches.			4 inches.			3½ inches.			2.25 inches.			6 inches.			6.5 inches.			
Number of crimps per inch....	——			——			——			——			——			——			
Number of section.....	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	4.5	4.75	4.0	5.125	5.375	5.125	4.25	3.5	2.125	3.5	3.5	4.0	3.875	3.625	3.875	3.0	2.625	4.0	3.0
	4.0	3.625	3.0	3.125	2.25	4.75	3.75	4.25	4.875	4.125	3.875	3.625	4.375	4.0	3.875	3.875	4.625	4.0	4.875
	3.875	2.5	4.0	3.5	3.625	3.0	4.25	3.0	4.375	4.125	3.625	3.5	4.25	3.0	3.0	2.0	3.5	3.0	4.75
	4.0	4.5	2.375	4.25	4.0	3.125	3.75	4.0	4.0	4.125	2.75	2.875	4.375	3.75	3.25	2.125	2.125	3.5	2.875
	3.625	4.5	3.25	3.875	4.125	4.0	4.0	4.0	4.75	4.25	3.75	4.125	4.5	3.375	3.375	3.5	2.5	3.0	1.25
	3.375	4.5	4.75	4.5	4.75	4.5	4.0	4.125	4.0	4.0	3.75	3.25	5.125	2.625	2.375	2.875	2.625	3.625	2.75
	4.125	3.25	3.75	3.375	3.5	4.625	3.5	3.5	2.375	3.25	3.375	3.375	4.5	4.375	4.375	3.875	5.25	3.5	2.0
	3.875	4.0	4.875	4.5	5.5	4.25	3.5	3.5	4.125	3.75	3.875	3.875	3.625	4.5	3.5	3.875	3.5	3.5	3.875
	3.75	3.375	4.875	3.75	5.375	4.75	5.0	4.0	3.5	4.5	4.25	3.375	2.75	3.875	5.25	3.125	3.25	3.0	3.875
	4.0	3.875	2.75	3.25	5.125	4.5	3.875	3.5	3.375	5.0	3.875	2.375	3.25	4.375	4.25	4.0	2.625	3.75	3.375
	4.375	4.75	3.375	4.0	5.5	4.0	4.625	4.25	5.125	4.375	3.75	2.25	4.375	2.75	3.75	3.75	4.375	5.25	5.375
	4.5	4.125	2.875	4.25	3.5	4.625	3.5	4.5	4.125	3.75	2.875	4.0	2.5	4.0	3.625	4.125	3.375	4.25	3.375
	2.5	3.875	3.375	4.625	4.875	4.5	4.25	4.0	4.25	4.5	4.125	4.0	4.375	3.625	4.625	3.625	3.875	4.375	3.875
	4.25	3.75	4.0	5.0	3.375	3.75	3.25	3.375	3.375	4.75	3.5	4.5	3.875	4.125	4.125	3.375	2.125	3.5	3.875
	4.25	4.375	4.625	2.875	2.375	3.5	4.25	4.0	4.875	2.875	3.75	4.0	3.75	2.875	2.375	3.375	3.5	3.25	3.75
	4.25	5.0	4.375	6.375	5.375	3.5	3.5	4.0	2.375	5.5	4.375	3.625	3.125	2.875	1.625	2.375	4.0	2.125	1.75
	4.25	2.75	4.875	4.25	4.0	3.0	4.375	4.0	4.375	3.5	4.125	3.625	3.875	4.0	4.125	3.75	3.75	2.625	1.875
	4.5	3.375	3.75	5.0	3.375	4.875	4.5	3.0	3.75	3.5	4.0	3.0	3.875	3.125	4.0	2.5	2.875	3.375	2.5
	4.25	4.0	4.5	3.875	4.5	3.75	3.0	3.0	2.25	3.375	3.75	4.5	5.0	3.75	1.625	3.0	3.875	2.75	3.5
	3.875	3.0	4.25	3.875	3.5	4.75	3.0	4.125	3.625	3.125	4.0	5.0	3.625	4.625	4.75	3.375	2.5	3.25	3.375
	4.375	4.25	4.0	3.75	3.375	4.5	5.0	2.625	2.875	3.75	5.375	5.125	4.125	3.375	3.375	3.75	2.875	3.0	3.25
	4.5	2.25	3.875	5.375	5.0	3.5	4.25	4.0	2.125	3.875	3.0	3.25	3.5	4.5	3.875	3.875	3.5	4.5	3.25
	2.75	3.375	4.125	3.375	3.375	3.875	3.875	4.0	4.375	3.25	3.5	3.625	4.0	4.25	2.375	3.25	5.375	4.375	4.5
	4.375	3.0	4.0	4.875	3.125	4.5	4.0	3.875	3.375	4.125	3.0	3.5	3.75	2.0	3.25	3.75	3.375	3.375	3.375
	4.375	4.125	4.375	3.5	3.5	4.0	4.375	4.0	3.25	4.375	4.375	4.0	3.125	5.0	3.625	2.875	4.0	2.625	3.25
	3.5	4.125	3.75	4.0	4.875	4.5	4.125	4.125	3.75	3.125	3.625	2.625	4.375	2.375	4.5	3.5	4.0	4.0	3.75
	3.625	4.0	4.5	2.625	2.375	5.0	5.0	4.875	3.375	3.0	4.625	4.875	4.125	4.875	4.0	3.75	3.875	3.0	2.125
	5.25	3.0	2.625	3.125	3.625	4.375	5.25	3.5	5.125	4.125	3.875	3.375	4.0	4.5	3.5	3.875	4.875	4.375	2.5
	5.5	2.375	4.25	4.125	5.375	3.875	3.875	3.5	3.25	5.0	3.0	3.5	2.875	4.375	3.125	3.5	2.875	3.5	5.5
	3.875	3.25	5.375	5.125	3.0	3.75	2.75	4.0	3.75	4.25	3.25	4.875	3.75	3.0	3.5	2.25	3.125	2.625	1.75
Averages.....	4.075	3.754	3.950	4.108	4.087	4.158	4.020	3.804	3.662	3.958	3.750	3.720	3.886	3.716	3.562	3.329	3.491	3.500	3.304

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹.	5.5	2.1653	B¹.	6.375	2.5098	B¹.	5.25	2.0669	B¹.	5.50	2.1653	B¹.	5.125	2.0177	B¹.	4.125	1.6240
	B².	5.0	1.9685	B².	5.5	2.1653	B².	4.875	1.9192	B².	5.375	2.1161	B².	5.00	1.9685	B².	5.375	2.1161
	B³.	5.375	2.1161	B³.	5.125	2.0177	B³.	5.125	2.0177	B³.	5.125	2.0177	B³.	5.25	2.0669	B³.	5.25	2.0669
																B⁴.	5.50	2.1653
Highest		5.5	2.1653		6.375	2.5098		5.25	2.0669		5.50	2.1653		5.25	2.0669		5.50	2.1653
Minimum measurements.	B¹.	2.5	0.9842	B¹.	2.625	1.0334	B¹.	2.75	1.0826	B¹.	2.875	1.1318	B¹.	2.50	0.9842	B¹.	2.00	0.7874
	B².	2.25	0.8858	B².	2.25	0.8858	B².	2.625	1.0334	B².	2.75	1.0826	B².	2.00	0.7874	B².	2.125	0.8366
	B³.	2.375	0.9350	B³.	3.0	1.1811	B³.	2.125	0.8366	B³.	2.25	0.8858	B³.	1.625	0.6397	B³.	2.125	0.8366
																B⁴.	1.25	0.4921
Lowest		2.25	0.8858		2.25	0.8858		2.125	0.8366		2.25	0.8858		1.625	0.6397		1.25	0.4921
Average measurements..	B¹.	4.075	1.6043	B¹.	4.108	1.6173	B¹.	4.020	1.5826	B¹.	3.958	1.5582	B¹.	3.886	1.5299	B¹.	3.329	1.3106
	B².	3.754	1.4779	B².	4.087	1.6090	B².	3.804	1.4976	B².	3.750	1.4763	B².	3.716	1.4629	B².	3.491	1.3754
	B³.	3.950	1.5551	B³.	4.158	1.6370	B³.	3.662	1.4417	B³.	3.720	1.4645	B³.	3.562	1.4023	B³.	3.500	1.3779
																B⁴.	3.304	1.3007
Average		3.926	1.5456		4.117	1.6208		3.828	1.5070		3.810	1.4999		3.721	1.4649		3.406	1.3409
Measurements above average..			51			43			52			41			52			50
Measurements below average..			39			47			38			47			38			48

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	COTSWOLD.															
Catalogue number of samples..	171. HIP.					171. BELLY.				172. SHOULDER.				172. SIDE.			
Length of fiber in crimp.....	6 inches.					3½ inches.				4½ inches.				6 inches.			
Number of crimps per inch....	——					——				——				——			
Number of section.....	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	3.75	4.375	4.875	4.5	4.0	3.875	3.5	3.625	4.0	3.5	2.875	2.5	2.875	4.0	3.875	3.875	2.625
	4.0	4.625	4.125	3.5	3.0	3.125	3.75	2.875	2.25	3.375	3.375	3.0	2.375	3.75	4.25	4.25	3.25
	3.625	3.75	4.375	3.375	2.5	4.375	3.5	3.375	3.875	3.375	3.625	3.875	2.625	4.0	3.625	4.0	2.875
	4.625	4.75	4.375	4.375	4.0	4.125	3.5	3.0	3.0	3.625	3.0	3.625	2.875	3.0	3.375	3.125	2.5
	4.5	5.875	5.0	4.5	4.0	3.0	3.5	4.375	4.125	3.0	2.625	2.75	3.25	3.5	3.625	4.25	3.5
	4.125	4.125	4.0	5.0	4.0	4.375	3.25	3.625	3.5	3.0	3.5	3.125	2.75	4.0	3.75	3.875	2.875
	3.875	5.25	5.375	3.875	4.125	3.625	3.5	3.625	3.25	3.0	2.5	3.875	2.75	4.0	3.875	4.0	2.5
	3.75	4.5	2.625	4.375	4.375	3.875	3.5	4.625	3.75	2.875	3.0	2.875	3.875	3.875	3.375	3.875	3.5
	4.0	3.25	4.375	4.125	3.25	4.0	3.25	4.75	3.5	3.5	3.5	3.0	2.0	3.75	2.5	3.625	2.375
	3.375	4.25	3.375	4.0	4.25	3.125	3.5	3.0	3.375	3.5	3.875	3.5	2.75	2.875	3.625	3.5	4.0
	4.75	4.125	5.375	4.5	4.625	4.0	3.5	3.25	3.0	3.0	3.25	4.375	3.0	3.5	5.25	3.375	4.125
	4.25	3.875	4.75	4.0	4.5	3.875	4.25	3.75	4.0	3.75	3.0	2.875	2.75	4.125	3.5	3.75	3.5
	5.125	5.0	4.375	4.0	4.5	4.0	4.375	3.75	2.875	3.375	3.125	3.125	3.75	3.5	3.625	3.875	2.875
	4.0	3.25	4.125	4.125	3.875	3.75	4.0	3.25	2.5	3.0	3.5	3.25	3.625	2.875	4.0	2.75	3.0
	4.125	4.875	4.875	4.375	3.0	4.0	4.0	4.0	3.375	2.875	3.375	3.5	4.0	4.375	4.0	3.125	3.625
	4.625	4.0	3.875	4.0	2.875	3.5	3.125	3.625	3.875	3.375	3.875	4.5	3.375	3.25	2.75	3.75	4.0
	3.5	4.25	4.5	4.75	4.0	3.5	4.0	4.375	2.0	3.125	3.375	2.0	3.375	3.375	3.75	3.875	2.625
	4.125	4.5	3.875	3.75	4.0	4.0	4.75	4.25	4.0	3.5	1.75	3.0	2.5	3.375	3.25	3.0	2.75
	4.75	4.25	4.0	4.125	4.0	3.5	4.0	3.0	4.375	3.0	2.75	3.0	2.875	3.0	4.0	3.5	4.25
	2.375	4.25	4.125	3.25	4.125	3.0	3.875	4.0	3.5	3.375	3.0	3.0	2.375	3.25	3.75	3.125	3.0
	5.0	3.125	3.0	4.25	4.125	4.0	4.625	3.75	4.0	3.75	3.375	3.125	3.0	4.375	4.0	4.5	2.75
	4.25	5.25	4.5	2.75	2.875	3.5	3.25	3.5	3.625	2.25	3.0	4.0	3.0	4.125	3.625	4.5	3.875
	5.375	4.75	4.375	4.125	3.625	4.125	4.0	4.375	3.375	2.875	2.875	2.875	3.375	3.25	3.875	3.125	3.5
	3.5	4.5	4.0	3.5	4.5	4.375	4.0	3.5	3.75	3.375	3.375	3.5	3.375	3.375	3.375	3.25	3.375
	4.125	3.75	4.75	4.125	4.5	3.75	4.0	3.875	3.25	3.5	4.375	3.375	3.0	3.0	3.125	2.6	3.625
	4.0	4.875	5.0	3.625	2.5	4.375	4.125	3.25	2.5	2.5	3.875	3.875	3.0	2.75	4.0	1.625	3.5
	4.5	4.5	4.75	4.75	3.5	4.125	3.5	3.75	4.375	3.375	2.625	2.5	3.25	4.375	3.25	3.0	2.75
	4.375	4.375	3.875	2.0	2.5	3.5	4.25	3.75	4.375	3.125	3.25	3.5	2.75	3.75	3.375	3.25	2.75
	2.875	3.75	4.375	3.625	5.25	3.75	3.875	3.0	1.875	3.625	3.0	3.0	2.375	4.875	3.75	3.75	4.5
	4.25	4.375	3.0	4.375	3.875	4.375	4.0	4.0	4.625	3.25	3.75	3.875	2.75	3.375	2.625	3.375	5.0
Averages	4.116	4.345	4.400	3.987	3.808	3.804	3.808	3.645	3.445	3.228	3.212	3.295	2.970	3.621	3.568	3.462	3.354

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:												
Maximum measurements.	B¹	5.375	2.1161	B¹	4.50	1.7716	B¹	3.875	1.5255	B¹	4.875	1.9192
	B²	5.875	2.3129	B²	4.75	1.8700	B²	4.375	1.7224	B²	5.25	2.0669
	B³	5.375	2.1161	B³	4.75	1.8700	B³	4.50	1.7716	B³	4.50	1.7716
	B⁴	5.0	1.9685	B⁴	4.625	1.8197	B⁴	4.0	1.5748	B⁴	5.0	1.9685
	B⁵	5.25	2.0669									
Highest		5.875	2.3129		4.75	1.8700		4.50	1.7710		5.25	2.0669
Minimum measurements.	B¹	2.375	0.9350	B¹	3.00	1.1811	B¹	2.50	0.9842	B¹	2.75	1.0826
	B²	3.125	1.2303	B²	3.125	1.2303	B²	1.75	0.6889	B²	2.50	0.9842
	B³	2.625	1.0334	B³	2.75	1.0826	B³	2.0	0.7874	B³	1.625	0.6397
	B⁴	2.0	0.7874	B⁴	1.875	0.7381	B⁴	2.25	0.8858	B⁴	2.375	0.9350
	B⁵	2.50	0.9842									
Lowest		2.0	0.7874		1.875	0.7381		1.75	0.6889		1.625	0.6397
Average measurements..	B¹	4.116	1.4204	B¹	3.804	1.4970	B¹	3.228	1.2709	B¹	3.621	1.4255
	B²	4.345	1.7106	B²	3.808	1.4992	B²	3.212	1.2645	B²	3.558	1.4007
	B³	4.400	1.7322	B³	3.645	1.4350	B³	3.295	1.2972	B³	3.462	1.3629
	B⁴	3.987	1.5696	B⁴	3.445	1.3562	B⁴	2.970	1.1692	B⁴	3.354	1.3209
	B⁵	3.808	1.4992									
Average		4.131	1.6263		3.675	1.4468		3.175	1.2499		3.499	1.3775
Measurements above average..		71			64			58			58	
Measurements below average..		79			56			62			54	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	COTSWOLD.																	
Catalogue number of samples..	172. HIP.				172. BELLY.			173. SHOULDER.				173. SIDE.				173. HIP.			
Length of fiber in crimp.....	4½ inches.				3½ inches.			3½ inches.				4½ inches.				——			
Number of crimps per inch....	——				——			——				——				——			
Number of section.....	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	3.0	4.625	4.375	3.5	3.5	3.375	3.75	3.25	3.5	3.5	3.5	4.5	4.0	2.875	4.0	4.25	6.25	5.0	7.125
	3.5	2.0	3.875	2.75	3.625	3.5	3.0	3.75	4.0	2.5	3.75	3.25	4.125	4.0	3.375	5.75	5.75	5.0	5.375
	3.5	3.75	4.375	4.625	3.875	3.5	3.125	2.875	3.375	4.125	4.875	4.625	4.375	5.375	3.5	4.875	3.5	4.5	5.0
	3.5	3.375	3.375	2.625	3.3	2.875	3.5	4.0	3.375	4.625	3.875	4.125	5.0	4.25	3.875	4.75	5.25	5.375	6.375
	4.375	3.25	2.5	2.5	3.375	3.25	3.5	3.125	3.25	3.75	3.875	4.5	3.25	4.0	3.5	2.75	4.875	5.5	5.5
	3.375	3.5	2.75	3.5	3.5	3.5	3.625	4.0	3.75	4.5	3.375	4.5	3.125	3.75	6.25	4.375	1.75	5.0	6.125
	2.375	2.875	3.25	3.5	3.125	3.25	2.75	3.625	3.875	3.75	2.125	2.75	3.875	3.875	4.375	4.0	3.5	4.875	3.875
	4.375	3.125	1.875	2.875	3.75	4.25	3.875	3.75	3.25	4.0	4.375	4.625	3.375	5.5	3.875	4.375	5.375	4.5	5.5
	3.5	3.375	2.5	3.375	3.0	3.25	3.0	4.0	3.5	4.5	4.625	4.375	4.5	3.875	3.0	5.0	4.5	4.375	5.5
	3.375	4.875	3.5	2.875	3.75	3.375	3.5	3.25	4.375	4.25	4.375	3.25	3.125	4.375	5.0	3.25	4.75	4.875	3.75
	2.5	3.375	3.875	3.0	3.5	2.875	1.375	5.0	3.375	3.5	4.125	5.0	4.125	5.375	2.5	4.5	5.875	4.0	6.75
	2.375	2.0	3.125	2.875	3.125	3.5	2.375	4.875	3.125	4.25	3.875	3.125	4.125	5.5	4.375	4.5	4.875	3.75	4.875
	2.625	3.25	3.75	3.875	3.375	4.0	2.0	4.5	3.25	3.125	4.25	2.875	3.625	5.5	4.875	3.875	4.375	5.5	3.875
	5.0	3.875	4.5	4.0	3.875	2.875	4.0	3.5	3.875	5.625	5.375	5.0	5.0	3.5	3.375	5.375	5.0	6.0	5.5
	3.25	3.5	2.75	3.75	3.25	3.0	3.75	4.25	3.75	4.0	4.125	3.5	4.375	4.25	5.375	3.5	5.75	4.5	6.375
	2.5	2.0	3.375	3.875	3.25	4.0	2.875	4.5	3.5	3.25	4.0	2.875	3.25	3.5	4.5	4.5	3.0	6.25	4.375
	2.75	3.375	3.875	3.0	3.5	3.25	3.625	4.0	3.75	5.0	4.0	4.375	4.0	4.0	4.5	4.5	5.25	4.75	3.625
	4.0	3.0	4.375	3.0	3.875	3.5	2.5	3.875	4.0	5.0	4.125	6.0	5.25	4.5	4.0	5.875	4.0	5.125	7.75
	4.0	3.0	3.25	3.875	3.75	3.5	3.875	4.0	4.375	4.875	3.75	2.625	4.375	4.375	2.625	5.125	4.25	4.875	5.5
	2.5	3.75	4.375	5.5	3.0	3.5	2.625	4.625	4.125	4.5	3.875	4.25	4.375	4.625	2.75	6.375	4.0	5.0	4.5
	3.0	4.25	3.625	2.625	2.625	3.375	3.125	4.875	4.25	4.25	3.125	3.875	2.375	3.875	4.25	3.25	3.0	3.5	7.5
	3.875	3.0	3.875	5.0	4.0	3.625	4.0	3.5	2.5	4.375	3.375	4.0	3.625	4.875	5.0	3.375	4.25	4.5	4.25
	4.375	4.5	3.5	2.75	3.375	2.875	2.5	4.0	3.25	3.5	5.125	4.125	4.25	3.875	2.875	2.5	6.375	6.5	5.75
	3.375	2.5	3.125	3.875	2.625	2.75	4.0	4.125	3.5	3.375	3.5	5.25	4.5	4.0	4.25	3.875	4.0	3.375	3.375
	4.875	4.25	3.25	3.5	3.5	3.375	3.5	4.0	4.5	5.375	3.5	4.5	7.0	2.5	4.625	4.125	6.5	2.5	5.0
	3.875	3.5	3.0	2.75	3.125	3.375	2.5	3.5	3.75	3.75	3.625	4.125	3.125	5.5	5.0	5.5	3.0	4.0	4.0
	3.5	3.75	3.25	2.0	3.875	2.25	3.75	4.25	3.625	4.25	2.375	4.375	3.0	3.0	4.5	4.5	5.875	4.0	5.5
	3.375	3.0	4.5	3.0	3.0	3.25	3.625	3.875	4.25	5.25	4.375	3.625	5.0	5.25	5.5	5.25	4.375	4.5	6.5
	2.875	3.25	3.5	2.125	3.25	3.5	3.125	3.75	4.125	4.75	4.375	3.375	3.25	5.5	6.25	5.75	4.5	5.25	6.25
	3.375	1.75	3.0	3.375	2.875	3.25	3.0	2.75	4.375	4.25	3.875	4.0	3.0	4.375	2.375	2.875	6.5	4.0	5.25
Averages.....	3.429	3.320	3.475	3.329	3.385	3.225	3.191	3.912	3.683	4.191	3.916	4.045	4.012	4.325	4.141	4.416	4.675	4.695	5.354

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	5.00	1.9685	B¹	4.00	1.5748	B¹	5.0	1.9685	B¹	6.0	2.3622	B¹	6.375	2.5098
	B²	4.875	1.9192	B²	4.25	1.6732	B²	4.50	1.7716	B²	7.0	2.7559	B²	6.50	2.5590
	B³	4.50	1.7716	B³	4.00	1.5748	B³	5.625	2.2145	B³	5.50	2.1653	B³	6.50	2.5590
	B⁴	5.50	1.1653	.....	.....	.....	B⁴	5.375	2.1161	B⁴	6.25	2.4606	B⁴	7.75	3.0511
Highest.....	.....	5.50	2.1653	.....	4.25	1.6732	.....	5.625	2.2145	.....	7.0	2.7559	.....	7.75	3.0511
Minimum measurements.	B¹	2.375	0.5413	B¹	2.625	1.0334	B¹	2.75	1.0826	B¹	2.625	1.0334	B¹	2.50	0.9842
	B²	1.75	0.6889	B²	2.25	0.8858	B²	2.50	0.9842	B²	2.375	0.9350	B²	1.75	0.6889
	B³	1.875	0.7381	B³	1.375	0.5413	B³	2.50	0.9842	B³	2.50	0.9842	B³	2.50	0.9842
	B⁴	2.0	0.7874	.....	.....	.....	B⁴	2.125	0.8366	B⁴	2.50	0.9842	B⁴	3.375	1.3287
Lowest	.....	1.75	0.6889	.....	1.375	0.5413	.....	2.125	0.8366	.....	2.375	0.9350	.....	1.75	0.6889
Average measurements..	B¹	3.429	1.3499	B¹	3.385	1.3326	B¹	3.912	1.5401	B¹	4.045	1.5925	B¹	4.416	1.7385
	B²	3.320	1.3070	B²	3.225	1.2696	B²	3.683	1.4499	B²	4.012	1.5795	B²	4.675	1.8405
	B³	3.475	1.3681	B³	3.191	1.2562	B³	4.191	1.6499	B³	4.325	1.7027	B³	4.695	1.8484
	B⁴	3.329	1.3106	.....	.....	.....	B⁴	3.916	1.5417	B⁴	4.141	1.6303	B⁴	5.354	2.1078
Average	.....	3.388	1.3338		3.267	1.2862		3.925	1.5452		4.130	1.6259		4.785	1.8839
Measurements above average..	.....	54		.....	50		.....	60		.....	58		.....	60	
Measurements below average..	.....	66		.....	40		.....	60		.....	62		.....	60	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitualations and reductions*—Cont'd.

	COTSWOLD.																
Catalogue number of samples	173. BELLY.			174. SHOULDER.				174. SIDE.				174. HIP.				174. BELLY.		
Length of fiber in crimp	2 inches.			4½ inches.				4½ inches.				4½ inches.				2½ inches.		
Number of crimps per inch	——			——				——				——				——		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.
Actual measurement in centimillimeters.	3.75	3.75	3.625	3.75	4.0	3.5	4.0	4.75	4.25	3.25	2.875	3.5	3.5	3.0	5.0	2.375	4.125	3.875
	3.5	3.5	5.0	3.625	4.125	4.0	4.0	3.5	3.375	3.625	2.875	4.25	4.25	3.5	5.0	3.0	3.75	3.625
	3.75	3.875	4.25	2.5	4.125	3.375	4.0	4.25	4.75	3.875	4.25	3.375	4.25	4.5	3.875	3.75	4.25	3.5
	2.75	4.125	3.5	4.125	3.625	4.0	3.0	2.875	3.875	4.625	3.75	3.0	3.25	4.375	5.25	3.5	3.625	3.5
	4.25	3.0	4.375	4.125	3.5	3.75	4.5	4.375	4.375	3.75	4.375	3.5	4.25	4.0	4.625	4.0	3.875	4.0
	4.375	3.375	4.375	3.875	3.125	4.25	4.5	4.375	4.75	3.875	4.5	5.75	4.125	2.25	3.25	4.0	3.75	3.125
	4.5	4.375	4.0	3.5	5.0	3.5	3.0	4.0	3.875	3.5	4.25	3.75	4.5	4.375	5.75	4.0	3.75	4.5
	4.25	4.5	5.375	3.375	3.625	4.75	4.0	4.5	4.5	3.5	4.25	4.0	4.375	5.25	4.5	3.0	3.75	3.75
	4.25	3.375	3.5	3.5	4.0	4.25	3.875	3.75	2.0	3.75	4.125	3.75	4.875	4.25	5.0	4.0	3.875	3.25
	3.875	3.875	4.25	3.5	4.0	3.75	5.0	3.25	4.0	4.375	4.625	4.0	3.875	3.375	4.25	3.125	4.5	3.125
	5.0	4.375	5.0	3.75	4.0	4.0	4.0	3.0	5.0	4.25	3.0	3.5	4.0	4.0	5.0	3.375	3.875	3.375
	3.75	3.25	4.0	4.0	3.75	4.25	4.375	4.0	4.0	5.0	5.0	3.5	3.25	4.5	3.375	4.0	4.0	3.375
	3.125	3.875	4.0	3.75	3.375	3.875	3.5	3.5	3.875	4.75	4.75	3.75	4.75	3.75	5.25	4.125	4.375	3.875
	3.25	4.375	4.5	3.5	4.0	3.5	4.0	3.25	3.375	3.5	2.25	3.75	4.0	3.5	4.375	3.5	3.5	2.625
	3.5	4.75	3.5	3.875	3.25	3.875	3.875	2.375	4.5	3.25	3.0	4.625	4.5	4.5	4.375	3.375	3.875	3.125
	3.0	5.375	4.5	3.25	4.25	3.875	4.0	3.25	4.375	4.375	4.5	4.0	5.0	4.75	4.25	3.0	3.5	2.5
	5.0	4.375	4.875	3.0	4.25	4.0	3.375	4.25	4.5	4.5	3.75	3.5	4.75	5.25	3.0	1.175	3.5	3.5
	3.5	3.25	3.5	3.75	3.375	3.875	3.875	3.75	4.75	2.875	4.0	2.375	4.625	4.125	2.25	3.625	3.125	2.875
	4.625	4.0	4.0	3.75	4.0	3.5	3.5	4.375	4.5	2.875	4.25	3.75	3.5	4.0	2.375	3.75	3.375	3.75
	4.25	3.5	3.875	3.625	3.75	3.375	3.875	4.25	4.375	3.375	4.875	3.25	3.375	3.875	3.0	3.25	3.875	3.75
	2.75	4.0	3.875	3.875	3.625	3.75	4.0	3.875	6.0	4.875	4.5	3.75	4.5	4.125	4.375	3.75	3.125	4.25
	3.875	4.25	3.875	4.125	3.875	3.75	4.875	4.125	3.875	3.875	3.5	4.0	3.375	3.75	3.375	3.625	3.5	4.0
	3.75	3.5	3.875	3.75	3.875	4.875	4.125	4.875	5.0	4.25	4.5	3.75	4.0	4.0	4.875	2.875	3.125	3.5
	4.125	3.375	3.375	4.0	3.375	3.5	4.375	4.125	4.5	3.5	4.75	3.375	4.0	4.0	4.25	4.25	3.875	3.875
	3.5	3.875	4.5	4.125	3.625	3.5	4.25	4.0	4.5	4.25	3.75	3.75	4.5	4.0	5.375	3.875	2.875	3.625
	3.75	3.875	4.25	3.0	2.75	4.375	4.5	4.0	3.5	3.25	4.125	3.75	3.25	5.375	4.5	3.5	3.125	2.875
	4.375	3.5	3.5	4.25	3.5	3.75	3.0	3.75	3.375	4.375	3.0	4.25	3.5	4.375	4.0	3.5	3.125	3.5
	3.875	4.0	4.0	3.75	3.75	3.0	3.875	3.75	5.0	2.5	3.5	4.875	4.0	4.125	4.25	3.0	3.125	4.0
	3.5	3.75	3.75	3.75	3.0	2.5	3.875	3.875	4.875	3.875	3.5	4.0	4.5	5.25	3.5	3.0	3.0	3.5
	4.125	3.5	3.875	3.375	3.5	3.375	4.5	4.0	4.5	3.5	4.75	4.5	4.0	3.375	4.5	3.5	3.875	3.75
Averages	3.845	3.883	4.095	3.670	3.733	3.754	3.907	3.866	4.141	3.820	4.007	3.795	4.154	4.116	4.325	3.433	3.633	3.529
	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reductions:															
Maximum measurements.	B¹	5.0	1.9685	B¹	4.25	1.6732	B¹	4.875	1.9192	B¹	5.75	2.2637	B¹	4.25	1.6732
	B²	5.375	2.1161	B²	5.0	1.9685	B²	5.0	1.9685	B²	5.5	2.1653	B²	4.5	1.7716
	B³	5.375	2.1161	B³	4.875	1.9192	B³	6.25	2.4606	B³	5.375	2.1161	B³	4.5	1.7716
	.....	.....	.....	B⁴	5.0	1.9685	B⁴	5.0	1.9685	B⁴	5.75	2.2637	.....	.....	.....
Highest	.....	5.375	2.1161	.....	5.0	2.9685	.....	6.25	2.4606	.....	5.75	2.2637	.....	4.5	1.7716
Minimum measurements.	B¹	2.75	1.0826	B¹	2.5	0.9842	B¹	2.375	0.9350	B¹	2.5	0.9842	B¹	1.75	0.6889
	B²	3.0	1.1811	B²	2.75	1.0826	B²	2.0	0.7874	B²	3.25	1.2795	B²	2.875	1.1318
	B³	3.5	1.3779	B³	2.5	0.9842	B³	2.5	0.9842	B³	2.25	0.8858	B³	2.5	0.9842
	.....	.....	.....	B⁴	3.0	1.1811	B⁴	2.25	0.8858	B⁴	2.25	0.8858	.....	.....	.....
Lowest	.....	2.75	1.0826	.....	2.5	0.9842	.....	2.0	0.7874	.....	2.25	0.8858	.....	1.75	0.6889
Average measurements.	B¹	3.845	1.5137	B¹	3.670	1.4448	B¹	3.866	1.5220	B¹	3.795	1.4940	B¹	3.445	1.3562
	B²	3.883	1.5287	B²	3.733	1.4696	B²	4.141	1.6303	B²	4.154	1.6354	B²	3.633	1.4370
	B³	4.095	1.6122	B³	3.754	1.4779	B³	3.820	1.5039	B³	4.116	1.6204	B³	3.529	1.3893
	.....	.....	.....	B⁴	3.907	1.5696	B⁴	4.007	1.5775	B⁴	4.325	1.7027	.....	.....	.....
Average	.....	3.941	1.5515	.....	3.786	1.4905	.....	3.938	1.5582	.....	4.097	1.6129	.....	3.541	1.3941
Measurements above average	.....	41		.....	41		.....	54		.....	58		.....	45	
Measurements below average	.....	49		.....	50		.....	34		.....	42		.....	45	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	COTSWOLD.																			
Catalogue number of samples..	175. SHOULDER.				175. SIDE.				175. HIP.				175. BELLY.			176. SHOULDER.				
Length of fiber in crimp.....	2⅞ inches,				3¼ inches.				2¾ inches.				2 inches.			4⅛ inches.				
Number of crimps per inch....	——				——				——				——			——				
Number of section.....	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	
Actual measurement in centimillimeters.	5.625	4.25	4.875	5.0	5.0	4.0	5.5	4.625	5.0	5.5	5.25	5.25	4.75	4.5	4.625	3.75	4.25	4.0	4.0	
	3.0	4.375	4.375	4.875	3.625	3.875	3.875	5.0	4.75	5.5	4.75	6.5	4.0	3.75	4.5	4.75	3.75	3.875	3.5	
	5.0	4.875	4.875	5.0	5.0	4.0	2.5	5.375	5.25	5.875	4.25	5.375	4.0	5.375	3.625	4.5	3.75	4.375	3.75	
	5.25	4.625	4.375	5.0	4.75	5.0	4.25	3.875	5.75	5.75	5.875	6.5	5.125	4.875	4.25	4.5	3.5	4.0	3.875	
	5.0	4.875	4.75	4.5	4.0	5.0	5.5	3.875	5.5	5.5	4.875	6.625	3.875	4.25	3.625	4.5	5.25	5.25	4.375	
	4.0	4.5	5.375	4.0	5.875	5.125	5.0	3.5	5.375	4.5	5.375	5.375	5.375	5.25	5.5	3.875	4.5	4.5	3.5	
	5.25	4.375	4.875	4.5	4.375	4.5	5.25	4.0	4.5	5.0	5.25	6.125	5.125	5.375	4.5	5.5	3.5	4.25	4.375	
	4.875	4.625	4.75	4.0	5.25	4.5	5.125	4.625	5.0	4.875	5.0	5.875	4.5	4.5	3.75	3.75	4.0	3.5	4.25	
	4.25	4.375	4.5	3.5	4.5	5.25	4.875	4.5	5.5	5.625	5.5	5.5	4.625	5.5	3.75	4.5	3.5	5.125	5.125	
	3.375	4.5	4.625	5.25	4.25	4.5	5.0	2.125	6.125	5.75	4.5	5.75	3.875	4.0	4.5	4.5	3.25	4.5	3.5	
	4.375	4.45	5.5	4.75	4.375	5.0	3.75	4.375	5.75	2.875	4.875	5.5	4.875	6.25	3.5	4.5	4.0	4.125	5.375	
	4.375	5.0	5.0	5.0	4.0	5.875	4.625	4.0	4.875	4.75	5.0	6.5	3.125	4.5	4.0	4.25	4.5	4.5	3.375	
	5.0	4.0	5.5	5.0	6.875	4.75	4.875	3.125	5.375	5.25	5.75	5.5	3.5	4.0	5.25	4.125	4.75	5.375	4.875	
	5.0	5.0	3.625	4.75	4.25	3.5	4.125	5.0	5.5	3.5	7.0	6.625	4.5	4.75	4.5	4.0	4.0	4.125	4.0	
	4.375	3.375	5.5	3.0	3.125	4.125	5.75	4.875	5.5	6.0	4.875	4.375	4.375	3.5	4.5	4.5	4.25	3.5	2.875	
	5.0	1.75	3.0	2.875	3.875	4.75	2.375	4.75	5.5	5.375	4.875	5.0	4.375	4.5	4.875	4.0	3.5	4.5	4.0	
	4.5	3.625	4.875	3.875	4.0	5.75	3.875	5.0	5.25	4.875	3.25	4.25	3.5	4.75	4.125	4.5	4.875	4.5	4.125	
	3.875	3.375	5.0	4.75	4.5	4.375	5.75	5.75	5.0	3.25	5.0	2.875	4.5	5.0	4.75	4.125	4.0	4.0	4.5	
	3.5	4.0	3.0	4.5	4.25	6.25	5.25	5.5	4.375	5.0	5.375	4.625	4.375	3.5	4.0	4.0	4.125	4.0	4.5	
	4.375	2.5	4.5	5.0	4.0	3.5	5.125	5.75	5.125	6.125	5.875	5.25	3.125	3.5	5.0	4.25	5.0	4.25	3.5	
	4.5	4.375	3.875	5.0	4.5	4.5	5.5	4.5	4.0	4.5	5.5	5.375	3.625	4.25	4.0	3.875	4.25	3.75	3.75	
	4.375	4.625	5.25	4.5	5.375	4.625	5.75	5.25	4.375	4.625	5.25	5.5	4.5	4.25	3.875	4.5	4.25	4.0	4.0	
	4.75	4.25	3.875	4.5	4.375	4.625	5.25	5.0	5.375	5.875	6.875	4.0	4.375	4.5	3.5	5.0	4.0	4.875	4.125	
	5.375	4.5	4.625	4.125	3.875	2.25	4.75	4.625	5.0	6.25	5.0	6.0	4.625	4.25	3.5	4.0	4.0	3.625	4.5	
	5.0	4.5	5.0	4.5	4.5	5.0	5.5	5.5	4.5	6.0	3.75	3.875	3.375	3.625	5.125	3.875	4.5	5.25	4.5	
	4.25	4.5	5.75	3.875	4.875	5.375	4.375	4.5	4.625	4.5	5.75	5.25	4.875	3.75	4.75	5.0	4.125	4.5	4.5	
	5.375	4.875	4.5	4.75	4.625	4.5	4.75	4.5	5.625	5.0	5.875	5.25	4.5	4.875	4.625	4.0	4.0	4.5	4.0	
	4.5	3.875	4.5	5.0	4.5	5.875	3.875	4.0	5.0	5.5	5.375	5.0	4.875	5.0	4.125	5.375	4.5	4.375	3.875	
	5.125	3.875	5.0	4.75	4.25	5.25	4.0	5.0	5.25	5.75	4.75	3.875	4.0	4.5	4.0	4.0	4.5	4.25	4.0	
	5.125	4.0	5.0	4.625	4.375	4.5	4.5	5.125	4.375	4.75	5.5	3.5	4.0	4.375	4.0	4.0	4.5	4.0	4.0	
Averages.....	4.612	4.194	4.675	4.491	4.504	4.670	4.694	4.587	5.104	5.120	5.204	5.233	4.275	4.500	4.287	4.333	4.162	4.244	4.087	

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	5.625	2.2145	B¹	6.875	2.7066	B¹	6.125	2.4114	B¹	5.375	2.1161	B¹	5.5	2.1653
	B²	5.0	1.9685	B²	6.25	2.4606	B²	6.25	2.4606	B²	6.25	2.4606	B²	5.25	2.0669
	B³	5.75	2.2637	B³	5.75	2.2637	B³	6.875	2.7066	B³	5.25	2.0669	B³	5.375	2.1161
	B⁴	5.25	2.0669	B⁴	5.75	2.2637	B⁴	6.625	2.6082	.....	.....	.....	B⁴	5.375	2.1161
Highest	.....	5.75	2.2637	.....	6.875	2.7066	.....	6.875	2.7066	.....	6.25	2.4606	.....	5.5	2.1653
Minimum measurements.	B¹	3.0	1.1811	B¹	3.125	1.2303	B¹	4.0	1.5748	B¹	3.125	1.2303	B¹	3.75	1.4763
	B²	1.75	0.6889	B²	2.25	0.8858	B²	2.875	1.1318	B²	3.5	1.3779	B²	3.25	1.2795
	B³	3.0	1.1811	B³	2.375	0.9350	B³	3.25	1.2795	B³	3.5	1.3779	B³	3.5	1.3779
	B⁴	2.875	1.1318	B⁴	2.125	0.8366	B⁴	2.875	1.1318	.....	.....	.....	B⁴	2.875	1.1318
Lowest	.....	1.75	0.6889	.....	2.125	0.8366	.....	2.875	1.1318	.....	3.125	1.2303	.....	2.875	1.1318
Average measurements..	B¹	4.612	1.8157	B¹	4.504	1.7732	B¹	5.104	2.0094	B¹	4.275	1.6830	B¹	4.333	1.7059
	B²	4.194	1.6511	B²	4.670	1.8385	B²	5.120	2.0157	B²	4.500	1.7716	B²	4.162	1.6385
	B³	4.675	1.8405	B³	4.694	1.8480	B³	5.204	2.0488	B³	4.287	1.6877	B³	4.244	1.6708
	B⁴	4.491	1.7681	B⁴	4.587	1.8059	B⁴	5.233	2.0602	.....	.....	.....	B⁴	4.087	1.6090
Average	.....	4.493	1.7688	.....	4.613	1.8161	.....	5.165	2.0334	.....	4.354	1.7141	.....	4.206	1.6559
Measurements above average..	.....	76		.....	61		.....	67		.....	50		.....	58	
Measurements below average..	.....	44		.....	59		.....	53		.....	40		.....	62	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

COTSWOLD.

Catalogue number of samples	176. SIDE.				176. HIP.				176. PELLY.				177. SHOULDER.				177. SIDE.			
Length of fiber in crimp	4½ inches.				4½ inches.				2⅝ inches.				3½ inches.				3½ inches.			
Number of crimps per inch	——				——				——				——				——			
Number of section	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	3.375	4.75	5.0	3.0	4.0	4.0	5.75	5.375	3.25	4.75	4.125	3.625	2.375	4.5	3.5	3.5	4.375	4.625	3.5	4.25
	5.5	4.875	3.5	4.25	5.25	3.75	4.25	3.875	3.375	4.25	3.75	3.25	4.625	4.0	4.0	4.375	4.5	5.0	4.0	5.0
	3.625	5.125	4.75	5.375	4.125	4.75	5.5	4.5	3.875	5.25	3.5	4.25	3.125	3.5	5.125	3.75	5.0	5.0	5.0	4.75
	3.5	4.25	3.625	4.125	5.0	3.5	4.5	5.375	4.25	4.125	3.5	3.5	2.625	3.5	4.25	2.75	5.375	5.0	5.0	3.25
	6.0	4.0	3.875	4.25	3.5	3.125	4.0	3.375	3.625	4.5	3.5	4.0	4.25	3.5	4.25	4.0	5.5	4.875	3.875	5.0
	5.25	4.375	4.375	3.25	4.875	5.25	5.5	4.375	3.625	5.0	3.875	4.375	3.875	3.125	4.0	3.5	4.25	4.0	3.75	4.875
	4.375	5.375	4.25	4.375	3.875	4.125	3.5	4.5	4.375	2.875	4.0	3.75	3.5	3.625	4.375	3.75	4.25	5.0	5.0	4.25
	4.0	5.25	4.0	4.375	3.25	5.0	3.125	4.5	4.0	4.875	3.875	4.5	2.875	2.25	3.875	4.25	4.0	3.75	4.0	5.0
	5.25	3.875	5.0	4.0	2.0	6.75	4.375	5.0	4.0	4.0	4.125	4.125	3.5	2.875	3.625	3.5	4.125	4.5	5.25	4.0
	5.375	4.5	4.0	5.75	5.0	4.375	4.875	4.75	4.25	4.0	4.5	3.75	3.0	2.5	2.625	3.75	4.25	4.375	5.0	5.0
	3.875	5.0	5.0	5.125	3.75	3.625	4.375	5.0	4.0	4.375	5.0	4.0	3.125	3.875	3.0	4.125	3.75	5.125	4.625	5.0
	4.375	3.875	3.5	4.0	4.125	4.0	5.375	4.75	3.875	4.0	4.375	3.75	2.375	3.875	2.75	3.0	4.25	4.125	4.75	5.5
	4.5	3.625	4.5	4.5	4.0	3.875	4.5	5.0	4.5	3.875	4.25	3.75	3.875	4.375	3.25	3.75	4.75	3.75	4.875	4.75
	4.375	4.75	4.0	5.0	3.25	3.75	5.75	4.375	4.375	3.75	4.0	3.75	3.125	4.5	3.0	3.875	4.75	5.25	4.625	4.25
	4.875	4.875	4.0	5.0	3.0	4.75	5.0	4.375	4.5	4.375	3.75	3.75	4.25	3.25	2.0	4.375	4.625	3.75	4.25	4.0
	3.875	4.25	4.125	5.25	4.125	5.0	5.0	5.25	4.25	4.0	4.75	3.875	3.125	3.5	3.5	3.75	4.375	4.0	5.0	4.75
	3.875	4.375	4.0	5.0	3.875	4.5	4.75	5.5	4.75	4.75	4.125	3.75	2.5	3.625	3.5	4.0	4.25	4.0	3.875	4.0
	3.625	4.0	3.875	3.25	4.5	5.25	3.875	4.875	3.125	4.0	3.75	3.25	4.125	3.5	4.0	4.25	4.375	3.5	3.875	3.875
	3.5	4.0	3.5	4.0	5.0	5.0	3.5	4.5	4.125	5.25	3.875	3.5	2.875	4.75	3.0	2.25	5.375	4.375	3.5	4.5
	4.5	3.0	5.0	4.0	4.0	4.5	5.0	3.875	4.0	4.0	4.0	4.0	3.0	4.0	5.75	4.625	4.5	5.0	4.25	4.5
	5.125	4.5	4.5	4.5	3.625	4.0	5.625	3.75	2.5	4.875	3.5	4.625	4.875	3.0	2.375	4.0	4.25	4.875	3.875	4.0
	4.375	5.0	5.0	4.75	4.75	4.375	4.5	3.5	3.5	4.875	4.5	4.5	3.0	4.625	3.0	4.375	5.0	3.75	3.625	4.375
	3.875	4.5	4.25	4.5	3.75	4.5	4.5	4.5	4.375	4.0	5.0	4.0	4.25	3.5	4.875	5.125	5.0	4.5	3.875	4.625
	4.875	4.0	4.375	3.875	3.25	4.0	5.0	4.375	4.5	4.5	4.5	5.0	3.25	3.5	4.125	3.75	4.25	4.5	4.0	4.75
	4.75	4.875	3.625	3.75	4.5	4.5	4.5	3.875	3.875	3.875	3.875	4.0	4.5	2.5	4.5	4.5	4.75	5.0	5.75	4.25
	4.5	4.5	4.0	4.75	4.125	4.125	3.875	5.75	4.375	4.0	4.875	4.0	3.5	4.5	2.5	4.5	4.25	4.0	5.25	5.125
	3.375	4.375	5.0	4.25	5.125	3.5	4.0	4.75	4.25	3.75	3.875	4.0	4.0	3.0	5.375	3.375	3.625	4.0	3.75	3.25
	4.125	4.0	4.5	3.75	4.5	4.375	4.0	4.25	4.25	4.25	3.875	3.25	2.625	3.5	3.0	3.5	5.75	4.875	4.375	4.125
	4.125	4.75	4.5	3.75	3.625	3.625	3.75	4.375	4.25	4.625	4.375	4.0	3.0	4.25	2.5	3.5	4.0	4.375	4.0	3.625
	4.875	5.25	4.0	4.5	4.375	3.5	3.75	6.25	4.375	4.25	4.75	3.25	3.0	2.625	3.875	3.75	4.75	3.5	4.375	4.25
Averages	4.230	4.460	4.120	4.341	4.070	4.279	4.545	4.616	3.912	4.296	4.130	3.874	3.547	3.505	3.697	3.666	4.475	4.291	4.302	4.429

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹.	6.0	2.3622	B¹.	6.5	2.0669	B¹.	4.5	1.7716	B¹.	5.0	1.9685	B¹.	5.75	2.2631
	B².	5.375	2.1161	B².	6.75	2.6574	B².	5.25	2.0669	B².	4.75	1.8700	B².	5.25	2.0669
	B³.	5.0	1.9685	B³.	6.5	2.5590	B³.	5.0	1.9685	B³.	5.75	2.2637	B³.	5.75	2.2637
	B⁴.	5.75	2.2637	B⁴.	6.25	2.4606	B⁴.	5.0	1.9685	B⁴.	5.125	2.0177	B⁴.	5.5	2.1653
Highest	.....	6.0	2.3622	.....	6.5	2.5590	.....	5.25	2.0669	.....	5.75	2.2637	.....	5.75	2.2637
Minimum measurements.	B¹.	3.375	1.3287	B¹.	2.0	0.7874	B¹.	1.75	0.6889	B¹.	2.375	0.9350	B¹.	3.5	1.3779
	B².	3.6	1.1811	B².	2.75	1.0826	B².	2.875	1.1318	B².	2.25	0.8858	B².	3.0	1.1811
	B³.	3.5	1.3779	B³.	3.125	1.2303	B³.	3.5	1.3779	B³.	2.0	0.7874	B³.	3.6	0.7874
	B⁴.	3.0	1.1811	B⁴.	3.375	1.3287	B⁴.	3.25	1.2795	B⁴.	2.25	0.8858	B⁴.	3.25	1.2795
Lowest	.....	3.0	1.1811	.....	2.0	0.7874	.....	1.75	0.6889	.....	2.0	0.7874	.....	2.0	0.7874
Average measurements.	B¹.	4.230	1.7007	B¹.	4.070	1.6023	B¹.	3.912	1.5401	B¹.	3.547	1.3961	B¹.	4.475	1.7618
	B².	4.460	1.7559	B².	4.279	1.6846	B².	4.296	1.6913	B².	3.505	1.3799	B².	4.291	1.6893
	B³.	4.120	1.6220	B³.	4.545	1.7893	B³.	4.130	1.6260	B³.	3.697	1.4200	B³.	4.302	1.6779
	B⁴.	4.341	1.7090	B⁴.	4.616	1.8173	B⁴.	3.874	1.5251	B⁴.	3.666	1.5220	B⁴.	4.429	1.7437
Average	.....	4.310	1.6968	.....	4.377	1.7232	.....	4.078	1.6055	.....	3.631	1.4295	.....	4.364	1.7181
Measurements above average	.....	63		.....	56		.....	53		.....	56		.....	51	
Measurements below average	.....	57		.....	64		.....	67		.....	64		.....	69	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	COTSWOLD.																	
Catalogue number of samples..	177. HIP.				177. BELLY.			178. SHOULDER.				178. SIDE.				178. HIP.			
Length of fiber	3⅜ inches.				2¾ inches.			3⅛ inches.				3¼ inches.				2⅞ inches.			
Number of crimps per inch	——				——			——				——				——			
Number of section	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B¹	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.
Actual measurement in centi-Millimeters.	4.75	4.75	5.0	6.0	3.875	4.0	3.75	3.75	4.5	4.5	4.75	4.25	4.5	4.5	4.0	3.5	4.25	4.625	4.625
	4.875	4.5	3.5	4.5	3.25	3.875	4.5	4.0	4.5	4.5	3.75	3.375	5.75	3.125	3.0	4.0	4.75	4.375	5.5
	4.0	4.375	5.5	4.75	3.5	4.375	3.5	4.375	4.0	4.625	4.75	3.25	3.0	4.25	3.25	3.5	4.125	5.0	5.0
	4.0	3.125	3.25	5.0	4.5	4.5	4.75	3.75	4.375	4.0	3.875	3.75	4.625	4.0	4.75	2.75	4.75	4.5	4.0
	4.625	2.75	5.375	4.75	3.5	2.875	4.5	2.5	3.75	5.125	4.25	4.25	5.0	4.0	3.75	2.75	4.0	2.5	4.0
	3.75	2.875	4.5	5.0	5.0	3.5	4.0	4.0	4.0	4.25	3.875	3.5	5.125	3.5	5.5	4.875	4.25	4.875	4.875
	4.0	4.875	5.125	4.625	4.5	3.5	3.625	4.25	3.0	4.25	3.0	4.25	4.0	3.0	2.875	3.0	4.375	5.25	4.75
	2.75	4.875	4.0	5.875	3.75	4.25	4.0	4.25	4.25	4.5	3.875	4.5	4.125	3.75	3.5	4.5	5.25	5.0	5.375
	5.0	4.125	4.0	4.875	4.5	3.25	4.25	4.5	3.75	3.875	4.625	4.0	3.75	4.25	4.75	4.0	3.875	4.125	5.125
	5.5	4.375	3.875	3.0	4.0	4.125	4.25	4.5	4.875	3.75	4.25	3.25	3.5	5.0	3.25	4.875	4.25	5.75	4.5
	5.5	3.25	4.5	4.5	3.75	3.75	3.875	3.875	4.5	5.25	4.25	4.0	3.5	4.0	3.5	4.75	3.0	4.875	4.375
	2.875	3.5	5.0	4.5	4.5	4.0	4.25	5.0	4.125	5.0	4.25	3.0	3.875	4.125	3.625	3.75	3.75	5.0	5.0
	4.125	2.875	4.25	4.875	4.0	3.25	4.625	4.0	2.25	3.875	3.25	3.5	4.125	3.625	2.0	4.625	4.375	4.5	4.5
	4.125	5.5	4.375	5.0	4.5	3.75	3.5	2.875	2.75	4.25	5.0	3.5	4.0	4.0	4.375	4.5	6.0	5.5	4.875
	4.25	4.625	4.875	5.625	3.5	4.0	3.375	3.875	4.125	4.75	4.875	3.625	4.375	4.25	4.0	4.125	4.0	5.0	5.75
	5.0	4.75	3.0	3.0	4.75	3.5	5.0	3.5	3.375	3.625	2.5	4.25	4.0	3.75	4.375	4.75	5.125	4.5	5.375
	5.0	4.375	4.125	3.625	4.0	3.5	3.0	4.25	3.75	4.5	4.0	3.375	4.0	3.25	4.875	2.875	5.25	4.875	4.75
	4.5	5.25	5.375	4.375	3.75	3.875	4.5	3.5	5.0	5.5	5.0	4.875	4.75	4.375	4.0	3.375	4.0	4.5	4.625
	3.0	4.625	3.5	4.125	4.0	4.25	3.875	4.0	5.625	4.625	5.5	4.125	3.75	3.875	3.75	4.75	3.75	4.5	4.5
	3.375	4.5	5.5	2.75	4.0	3.375	4.25	4.5	4.625	4.0	5.0	3.5	4.75	4.0	3.75	4.125	4.25	4.875	4.5
	4.875	4.5	5.75	5.25	3.75	4.0	4.25	2.875	4.75	5.125	4.375	3.25	3.0	4.5	4.5	4.0	4.75	5.125	4.625
	4.5	2.5	4.375	4.5	4.5	3.625	4.75	4.0	4.5	4.25	4.75	3.375	4.0	4.25	2.0	4.5	5.0	4.75	3.25
	5.875	6.75	2.375	5.25	3.5	4.0	4.375	4.375	2.5	4.5	4.75	4.0	4.0	4.0	2.125	4.5	4.5	5.375	4.5
	4.625	3.0	4.75	5.5	4.375	3.5	3.875	4.0	5.75	4.125	3.75	3.875	3.73	4.25	2.0	4.625	4.5	5.0	2.75
	5.0	4.875	5.0	5.5	4.5	4.0	3.75	4.5	4.25	4.375	3.25	4.0	4.375	4.0	3.875	5.375	4.875	4.625	5.375
	5.5	3.5	4.875	5.625	3.625	3.5	4.25	5.5	3.75	3.75	4.875	3.5	3.5	4.0	3.5	3.375	5.875	4.375	3.75
	5.375	5.0	5.75	4.75	3.25	3.0	4.0	4.25	3.75	4.25	3.5	3.0	4.5	3.375	4.0	5.0	4.5	4.375	4.25
	3.875	6.0	2.875	4.5	4.25	4.0	4.0	4.0	4.625	4.0	5.0	3.875	3.625	4.75	3.5	4.5	3.25	3.25	4.625
	4.75	2.875	4.75	5.375	3.5	4.625	4.25	3.5	4.375	3.625	4.375	4.0	4.75	4.375	4.375	5.0	5.0	4.25	4.375
	4.125	5.875	4.375	4.75	4.125	3.5	3.0	3.5	4.875	4.0	4.125	3.625	3.375	3.0	2.0	4.25	6.0	3.875	2.625
Averages	4.450	4.291	4.466	4.708	4.016	3.775	4.062	3.991	4.141	4.358	4.245	3.754	4.145	4.004	3.658	4.150	4.520	4.636	4.537

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹.	5.875	2.3129	B¹.	5.0	1.9685	B¹.	5.5	2.1653	B¹.	4.875	1.9192	B¹.	5.375	2.1161
	B².	6.75	2.6574	B².	4.625	1.8205	B².	5.75	2.2637	B².	5.75	2.2637	B².	6.0	2.3622
	B³.	5.75	2.2637	B³.	5.0	1.9685	B³.	5.5	2.1653	B³.	5.0	1.9685	B³.	5.75	1.2637
	B⁴.	6.0	2.3622	.....	.....	.....	B⁴.	5.5	2.1653	B⁴.	5.5	2.1653	B⁴.	5.75	2.2637
Highest	.....	6.75	2.6574	.....	5.0	1.9685	.....	5.75	2.2637	.....	5.75	2.2637	.....	6.0	2.3622
Minimum measurements.	B¹.	2.75	1.0826	B¹.	3.25	1.2795	B¹.	2.5	0.9842	B¹.	3.0	1.1811	B¹.	2.75	1.0826
	B².	2.5	0.9842	B².	2.875	1.1318	B².	2.25	0.8858	B².	3.0	1.1811	B².	3.0	1.1811
	B³.	2.375	0.9350	B³.	3.0	1.1811	B³.	3.625	1.4271	B³.	3.0	1.1811	B³.	3.0	0.9842
	B⁴.	2.75	1.0826	.....	.....	.....	B⁴.	2.5	0.9842	B⁴.	2.0	0.7874	B⁴.	2.625	1.0334
Lowest	.....	2.375	0.9350	.....	2.875	1.1318	.....	2.25	0.8858		2.0	0.7874	.....	2.5	0.9842
Average measurements.	B¹.	4.450	1.7519	B¹.	4.016	1.5810	B¹.	3.991	1.5712	B¹.	3.754	1.4779	B¹.	4.150	1.6338
	B².	4.291	1.6893	B².	3.775	1.4862	B².	4.141	1.6303	B².	4.145	1.6318	B².	4.520	1.7795
	B³.	4.466	1.7582	B³.	4.062	1.5992	B³.	4.358	1.7157	B³.	4.004	1.5763	B³.	4.636	1.8251
	B⁴.	4.708	1.8535	.....	.....	.....	B⁴.	4.245	1.6712	B⁴.	3.658	1.4401	B⁴.	4.537	1.7862
Average	.....	4.478	1.7629	.....	3.951	1.5555	.....	4.183	1.6468		3.890	1.5314	.....	4.460	1.7559
Measurements above average	.....	73		.....	49		.....	65		.....	63		.....	73	
Measurements below average	.....	47		.....	41		.....	55		.....	57		.....	47	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	COTSWOLD.																	
Catalogue number of samples..	178. BELLY.			179. SHOULDER.				179. SIDE.				179. HIP.				179. BELLY.			
Length of fiber in crimp	2½ inches.			3½ inches.				4½ inches.				3½ inches.				3 inches.			
Number of crimps per inch	——			——				——				——				——			
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	3.5	3.25	3.375	3.25	4.125	2.5	1.875	3.625	4.375	4.75	5.375	6.25	4.875	5.5	5.5	4.125	3.75	5.5	4.75
	4.5	4.25	4.375	3.75	3.875	4.75	4.375	3.375	3.625	3.625	5.75	4.5	4.875	5.0	5.875	3.875	5.0	3.0	4.625
	2.75	3.125	3.5	3.75	4.125	3.375	5.0	3.5	4.875	4.75	5.25	5.375	5.375	4.375	5.375	3.75	3.625	3.375	4.25
	3.875	3.0	4.25	4.0	4.25	5.5	4.875	1.75	3.75	2.875	3.25	5.5	4.25	5.5	5.75	4.0	4.0	4.0	5.375
	3.625	4.0	3.75	4.875	4.375	4.5	4.5	1.875	5.0	4.0	5.875	4.375	4.375	6.0	6.375	3.5	3.375	4.125	4.25
	3.875	3.875	3.625	5.0	3.875	4.625	4.625	5.5	3.75	5.025	5.6	4.5	5.0	6.375	5.375	4.0	3.875	4.125	5.0
	3.75	3.625	4.0	4.125	4.0	5.25	5.5	3.25	4.75	4.875	6.0	5.625	4.75	5.75	5.5	4.0	4.375	4.5	4.0
	4.0	4.0	3.375	4.5	4.25	5.0	5.6	5.25	4.5	5.5	5.0	5.875	4.75	5.375	6.0	3.375	3.875	4.0	2.75
	3.625	3.75	3.625	3.625	3.875	4.5	4.75	3.625	4.5	6.0	4.875	4.375	4.0	4.375	6.5	3.25	4.0	5.0	4.375
	2.625	3.75	4.0	3.875	4.5	4.25	5.25	2.0	5.0	5.75	5.875	4.625	4.0	5.75	5.25	4.875	3.5	4.0	4.375
	2.75	4.75	3.375	4.75	3.0	4.75	5.375	4.5	5.125	5.875	5.375	4.75	4.5	5.5	5.6	3.75	3.125	4.25	3.625
	3.25	3.625	3.0	4.125	5.0	3.125	5.125	3.25	6.0	3.0	5.375	5.375	4.375	5.0	4.6	3.0	3.875	4.375	4.375
	4.0	3.25	4.5	4.375	4.5	4.0	5.125	3.875	3.0	5.5	4.75	5.125	4.75	4.875	5.25	3.625	3.5	5.125	4.25
	3.5	3.75	3.875	3.875	4.75	4.875	5.875	4.0	4.5	3.5	5.5	5.875	4.0	4.5	5.0	3.625	3.5	3.75	4.0
	3.0	3.25	4.25	3.75	3.25	4.625	5.0	4.5	4.375	5.25	5.0	5.5	4.875	5.25	5.5	3.75	3.0	4.5	4.75
	3.0	3.5	3.0	4.0	5.25	4.5	3.5	4.5	4.375	5.75	4.5	5.25	4.5	6.0	5.5	4.5	3.5	4.625	4.875
	3.75	3.375	4.375	3.125	4.0	3.5	4.375	2.625	4.375	5.0	5.0	4.125	4.5	5.5	5.875	4.375	4.25	3.875	4.5
	3.0	3.0	3.875	4.375	4.375	4.375	5.0	4.375	4.125	3.875	5.375	5.0	5.125	6.25	5.5	4.5	4.0	4.875	5.0
	3.0	3.5	3.5	4.5	3.25	3.875	5.0	4.5	5.375	5.125	3.875	4.5	4.75	6.25	5.75	5.0	3.375	4.0	4.125
	4.0	3.75	4.125	3.125	4.125	2.0	4.0	5.0	2.875	4.75	5.3	4.875	5.375	5.375	6.25	4.375	4.375	5.0	4.5
	3.125	3.25	3.5	4.5	3.875	4.875	4.0	5.875	4.5	5.75	5.25	5.375	5.25	5.375	5.5	4.125	3.5	4.0	5.0
	3.0	3.0	3.5	4.25	3.375	5.0	4.625	4.5	4.375	4.25	4.5	5.5	2.75	5.375	4.625	3.75	3.5	4.0	5.0
	3.125	3.0	4.25	4.25	3.75	4.25	5.25	4.75	3.75	3.875	4.5	5.375	4.75	6.0	6.5	4.25	3.5	2.625	5.0
	3.75	3.5	4.5	3.75	4.0	2.875	5.0	5.0	3.25	4.375	5.625	6.25	4.3	6.0	5.125	4.375	3.5	4.375	3.5
	3.5	4.0	4.5	3.5	3.875	4.75	4.125	5.25	3.75	5.0	3.75	4.625	4.0	4.0	5.0	3.75	3.25	4.25	4.3
	4.375	4.0	4.0	3.625	3.5	4.375	4.75	4.5	3.75	4.0	5.125	4.875	5.0	5.0	6.0	3.375	4.25	2.75	4.875
	4.0	4.375	2.875	4.0	4.5	4.5	4.5	5.0	3.0	5.375	6.625	6.125	5.5	5.75	4.75	2.5	3.25	4.5	4.5
	3.25	3.125	3.0	3.0	4.25	4.875	4.875	5.0	4.75	4.5	5.5	5.875	5.3	5.25	5.0	4.375	3.875	4.25	5.125
	4.75	3.5	3.5	3.25	3.875	3.875	5.0	4.875	5.25	5.25	5.25	5.875	4.5	5.75	2.5	3.76	4.0	4.5	4.5
	4.0	4.375	4.0	3.5	3.75	4.875	5.25	4.75	4.5	3.5	5.5	5.3	4.75	5.375	5.6	4.75	4.625	4.5	4.125
Averages	3.541	3.616	3.770	3.912	4.050	4.304	4.736	4.212	4.258	4.691	5.137	5.228	4.683	5.379	5.704	3.941	3.770	4.191	4.496

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	4.75	1.8700	B¹	5.6	1.9685	B¹	5.875	2.3129	B¹	6.25	2.4606	B¹	5.6	1.9685
	B²	4.75	1.8700	B²	5.25	2.0696	B²	6.0	2.3622	B²	5.5	2.1653	B²	5.0	1.9685
	B³	4.5	1.7716	B³	5.5	2.1635	B³	6.0	2.3622	B³	6.375	2.5098	B³	5.56	2.1653
	.....	.....	.....	B⁴	5.875	2.3392	B⁴	6.625	2.6082	B⁴	6.5	2.5590	B⁴	6.0	2.3622
Highest.....	.....	4.75	1.8700	.....	5.875	2.3129	.....	6.625	2.6082	.....	6.5	2.5590	.....	6.0	2.3622
Minimum measurements.	B¹	2.625	1.0334	B¹	2.875	1.1318	B¹	1.75	0.6889	B¹	4.125	1.6240	B¹	2.50	0.9842
	B²	3.0	1.1811	B²	3.0	1.1811	B²	2.875	1.1318	B²	2.75	1.0826	B³	3.0	1.1811
	B³	2.875	1.1318	B³	2.5	0.9842	B³	2.875	1.1318	B³	3.375	1.3287	B³	2.625	1.0334
	.....	.....	.....	B⁴	1.875	0.7381	B⁴	3.25	1.2795	B⁴	2.5	0.9842	B⁴	2.75	1.0826
Lowest	.....	2.625	1.0334	.....	1.875	0.7381	.....	1.75	0.6889	.....	2.5	0.9842	.....	2.50	0.9842
Average measurements..	B¹	3.541	1.3940	B¹	3.912	1.5401	B¹	4.212	1.6582	B¹	5.228	2.0582	B¹	3.941	1.5515
	B²	3.616	1.4236	B²	4.050	1.5744	B²	4.258	1.6763	B²	4.683	1.8436	B²	3.770	1.4842
	B³	3.770	1.4877	B³	4.304	1.6944	B³	4.691	1.8468	B³	5.379	2.1177	B³	4.191	1.6499
	.....	.....	.....	B⁴	4.736	1.8645	B⁴	5.137	2.0224	B⁴	5.704	2.1669	B⁴	4.496	1.7696
Average.....	.....	3.645	1.4350	.....	4.250	1.6732	.....	4.574	1.8007	.....	5.198	2.0464	.....	4.099	1.6137
Measurements above average..	.....	43		.....	53		.....	61		.....	68		.....	61	
Measurements below average..	.....	58		.....	53		.....	59		.....	52		.....	59	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	COTSWOLD.																	
Catalogue number of samples..	180. SHOULDER.				180. SIDE.				180. HIP.				181. SHOULDER.			181. SIDE.			
Length of fiber in crimp.....	3⅞ inches.				4⅜ inches.				5¼ inches.				4½ inches.			4 inches.			
Number of crimps per inch....	——				——				——				——			——			
Number of section.....	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	5.0	5.5	5.0	4.625	4.75	4.5	4.5	6.0	3.5	5.125	3.375	4.125	4.875	5.375	4.625	4.75	4.875	4.5	4.75
	3.875	3.75	5.0	4.375	5.0	3.5	2.125	4.25	4.875	5.125	5.0	4.5	4.75	5.625	3.875	5.25	6.25	4.125	5.125
	4.0	3.75	3.875	4.875	3.875	3.25	2.375	2.75	4.875	4.75	5.375	5.75	4.0	4.25	3.5	3.875	3.875	6.25	2.875
	3.875	3.625	3.875	2.75	4.0	4.375	5.5	4.5	4.875	5.25	5.375	4.875	4.0	2.375	4.125	5.0	5.25	2.25	5.5
	4.75	3.875	2.5	3.0	5.5	4.5	2.875	2.25	4.375	4.125	4.25	4.75	4.25	5.0	4.875	4.25	4.5	5.25	4.875
	4.5	4.25	4.75	3.875	4.75	3.25	4.75	4.0	5.0	4.5	5.0	4.5	3.5	4.375	3.75	5.25	4.125	5.875	3.25
	4.375	4.375	5.0	4.125	3.25	2.875	4.0	2.75	4.5	4.5	5.25	5.5	4.5	5.375	4.375	4.375	3.875	4.125	3.875
	5.0	3.5	4.75	3.125	4.0	4.875	4.625	3.375	3.625	5.375	5.375	5.875	4.375	2.875	3.625	4.0	4.625	4.5	5.0
	5.0	5.75	4.0	2.875	3.375	3.0	5.0	4.75	5.25	4.5	4.375	3.5	3.75	4.375	3.25	4.75	6.0	4.5	5.5
	4.0	5.375	6.5	4.625	4.875	4.25	2.375	4.0	4.125	4.0	3.75	4.0	4.125	4.5	2.875	5.0	4.75	3.875	4.625
	4.5	4.125	5.5	4.0	5.875	4.375	2.875	5.375	3.875	4.375	5.25	4.375	3.5	3.75	3.0	5.625	5.375	3.625	5.0
	3.375	5.125	5.25	3.375	4.875	4.5	5.0	4.0	5.75	4.875	5.375	4.0	4.25	5.125	3.375	3.625	4.875	3.5	3.375
	5.25	3.75	4.375	6.0	5.0	5.125	1.75	2.875	5.0	4.5	1.875	3.75	4.375	4.0	4.5	4.5	5.5	4.75	5.0
	4.75	5.5	4.0	4.25	4.5	3.75	4.375	3.0	4.0	4.5	5.5	3.375	4.875	3.875	3.5	5.5	3.125	3.625	5.0
	3.875	4.75	3.25	3.875	4.375	5.25	5.625	5.0	5.25	4.5	4.375	4.5	4.5	4.75	4.375	6.0	5.125	5.0	5.25
	4.25	4.75	4.375	4.375	4.875	4.0	6.375	2.125	5.25	4.125	5.5	5.5	5.5	4.5	4.0	4.0	4.875	5.25	3.75
	5.125	3.25	5.0	5.0	5.5	4.625	4.0	5.5	4.25	4.5	5.375	5.75	3.75	4.75	4.375	3.75	5.625	3.875	5.25
	5.0	5.25	5.5	4.0	4.0	3.375	4.125	3.5	5.375	4.5	5.375	3.25	4.375	3.5	4.5	4.375	5.375	6.0	3.0
	4.375	4.625	5.5	3.875	5.5	5.25	4.375	3.75	4.25	3.875	5.625	4.875	3.75	3.5	4.25	5.5	4.125	5.5	4.375
	4.875	5.0	4.125	5.0	3.5	4.5	5.125	5.0	5.0	5.375	4.875	4.375	3.375	3.625	4.0	3.875	6.375	4.0	5.0
	3.375	5.375	4.125	3.125	5.5	4.125	3.75	4.375	4.5	3.875	5.5	4.875	5.0	3.25	4.625	2.875	4.875	4.5	4.375
	5.25	6.25	4.875	5.0	4.5	4.875	4.375	4.5	5.0	3.0	3.75	5.0	4.0	4.5	4.5	6.0	4.0	4.5	3.5
	5.0	4.0	5.0	3.75	5.375	3.375	4.0	4.5	3.875	5.25	3.75	4.375	4.5	5.0	3.375	5.625	4.625	4.5	3.5
	4.875	4.875	3.75	4.375	4.0	2.375	3.25	4.25	4.0	5.75	4.75	3.75	4.75	4.75	5.0	5.375	5.0	3.125	5.125
	4.0	4.75	4.0	3.0	5.5	5.875	4.125	3.5	4.875	4.75	6.25	6.0	6.25	4.625	4.375	4.375	4.25	3.0	3.5
	6.0	4.625	2.625	4.75	3.0	4.5	4.75	4.5	4.75	5.0	5.125	3.75	4.375	3.875	4.25	4.0	4.75	3.375	4.125
	4.0	3.875	3.875	2.375	4.25	4.0	2.5	3.625	5.125	5.0	6.25	5.0	3.625	3.75	3.75	4.0	4.5	4.375	5.5
	3.625	5.375	2.75	3.375	3.75	3.5	4.625	4.875	5.5	5.625	4.5	6.5	4.0	5.125	4.5	5.5	2.5	4.0	4.875
	3.375	4.625	3.875	4.0	2.875	2.875	2.0	4.5	4.0	4.875	2.75	3.625	4.75	5.25	3.0	4.25	4.5	4.5	3.375
	5.0	2.5	3.125	4.75	4.75	4.625	4.125	3.5	3.375	5.0	4.0	3.75	5.375	5.0	4.0	4.0	4.625	5.625	4.0
Averages.....	4.475	4.537	4.337	4.049	4.495	4.108	3.975	4.029	4.600	4.676	4.762	4.591	4.363	4.360	4.036	4.641	4.770	4.395	4.475

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	6.0	2.3622	B¹	5.875	2.3129	B¹	5.75	2.2637	B¹	6.25	2.4606	B¹	6.0	2.3622
	B²	6.25	2.4606	B²	5.875	2.3129	B²	5.75	2.2637	B²	5.625	2.2145	B²	6.375	2.5098
	B³	6.50	2.5590	B³	6.375	2.5098	B³	4.25	2.4606	B³	5.0	1.9685	B³	6.25	2.4606
	B⁴	6.0	2.3622	B⁴	6.0	2.3622	B⁴	6.50	2.5590	.....	.....	.....	B⁴	5.50	2.1653
Highest.....	.....	6.50	2.5590	.....	6.375	2.5098	.....	6.50	2.5590	.....	6.25	2.4606	.....	6.375	2.5098
Minimum measurements.	B¹	3.375	1.3287	B¹	2.875	1.1318	B¹	3.375	1.3287	B¹	3.375	1.3287	B¹	2.875	1.1318
	B²	2.50	0.9842	B²	2.375	0.9350	B²	3.0	1.1811	B²	2.375	0.9350	B²	2.50	0.9842
	B³	2.50	0.9842	B³	1.75	0.6889	B³	1.875	0.7381	B³	2.875	1.1318	B³	2.25	0.8858
	B⁴	2.375	0.9350	B⁴	2.125	0.8366	B⁴	3.25	1.2795	.....	.....	.....	B⁴	2.875	1.1318
Lowest	.....	2.375	0.9350	.....	1.75	0.6889	.....	1.875	0.7381	.....	2.375	0.9350	.....	2.25	0.8858
Average measurements..	B¹	4.475	1.7618	B¹	4.495	1.7696	B¹	4.600	1.8110	B¹	4.363	1.7177	B¹	4.641	1.8271
	B²	4.537	1.7862	B²	4.108	1.6173	B²	4.676	1.8409	B²	4.360	1.7165	B²	4.770	1.8779
	B³	4.337	1.7074	B³	3.975	1.5649	B³	4.762	1.8747	B³	4.036	1.5889	B³	4.395	1.7303
	B⁴	4.049	1.5940	B⁴	4.020	1.5862	B⁴	4.591	1.8074	.....	.....	.....	B⁴	4.475	1.7618
Average.....	.....	4.350	1.7125	.....	4.151	1.6342	.....	4.657	1.8334	.....	4.253	1.6744	.....	4.570	1.7992
Measurements above average..	.....	[illegible]		.....	64		.....	63		.....	46		.....	58	
Measurements below average..	.....	57		.....	56		.....	57		.....	44		.....	62	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	COTSWOLD.																			
Catalogue number of samples	181. HIP.				181. BELLY.			182. SHOULDER.			182. SIDE.			182. HIP.				182. BELLY.		
Length of fiber in crimp	4½ inches.				3½ inches.			3½ inches.			3½ inches.			4½ inches.				3½ inches.		
Number of crimps per inch	——				——			——			——			——				——		
Number of section	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.
Actual measurement in centimillimeters.	5.625	3.5	4.0	5.125	5.0	4.875	4.0	2.5	5.0	4.5	4.375	4.5	4.5	5.125	6.75	5.5	4.5	4.375	4.5	4.0
	8.375	6.25	6.625	4.875	4.75	3.75	4.0	4.875	4.625	4.75	4.625	4.25	3.5	4.0	5.375	6.0	4.5	4.25	4.625	5.125
	4.75	6.375	8.25	4.25	4.625	4.125	4.0	5.0	5.375	4.625	3.5	5.25	5.0	3.5	4.125	5.5	5.0	3.875	4.5	4.625
	5.5	5.5	3.125	4.5	4.75	5.25	3.5	4.625	4.125	3.5	5.0	3.75	3.125	5.5	4.25	4.5	5.0	4.375	5.25	4.0
	4.75	7.375	4.75	2.75	5.0	4.125	4.625	3.25	3.75	1.75	5.375	5.0	4.5	5.375	6.0	5.0	4.75	4.75	4.625	4.125
	4.75	5.0	4.0	6.125	4.0	5.375	3.25	5.0	3.125	5.25	5.0	4.75	5.5	4.5	5.375	4.5	4.625	3.875	4.75	4.25
	5.125	5.0	5.5	4.75	5.0	4.875	4.0	4.75	3.875	4.0	3.75	5.25	5.5	3.75	5.5	5.25	3.75	4.25	4.875	3.875
	6.625	6.5	5.25	3.75	4.5	3.875	3.5	3.875	5.625	4.875	4.125	3.375	3.875	6.125	5.75	5.25	4.5	3.875	5.0	4.5
	5.5	5.5	5.75	5.0	4.375	4.375	4.75	3.875	5.0	1.875	4.25	5.375	5.875	2.5	5.875	5.625	4.5	3.5	5.5	4.0
	5.375	7.0	3.625	5.125	5.0	3.875	4.625	3.375	3.625	4.5	4.0	4.125	5.25	4.375	5.0	5.75	3.75	4.0	4.0	4.0
	5.875	4.125	6.625	5.0	5.25	3.75	4.375	4.0	4.875	3.875	4.75	4.75	5.125	5.125	5.5	5.875	3.75	4.0	4.0	3.25
	4.0	5.5	4.5	4.0	5.125	4.625	3.0	4.375	5.0	5.25	5.75	1.5	5.0	4.0	4.5	4.875	6.5	3.875	4.0	4.25
	5.0	4.0	4.75	5.5	5.375	4.5	3.875	4.5	3.25	5.5	4.25	5.75	5.0	2.375	2.5	6.5	5.5	4.5	4.125	4.25
	5.75	5.0	4.5	6.25	5.125	3.625	3.25	5.0	4.5	4.5	3.5	4.5	4.75	6.25	5.125	4.0	4.875	4.25	4.5	1.125
	5.0	4.5	3.75	4.375	4.625	4.625	3.5	5.0	5.0	5.25	5.375	4.75	4.0	4.875	4.375	6.5	3.25	3.625	4.25	4.5
	5.75	5.25	5.125	4.0	5.0	4.875	4.875	4.0	4.625	4.75	3.875	4.875	4.375	5.125	4.875	6.0	3.5	4.5	4.875	4.0
	4.5	5.0	3.875	4.375	4.0	5.0	3.875	3.25	3.0	5.0	2.5	4.25	4.5	5.0	6.25	4.75	5.75	4.25	4.75	3.5
	5.75	4.625	5.0	3.75	4.75	3.875	5.0	2.875	4.75	5.5	3.5	4.0	5.0	5.875	5.0	5.0	4.875	3.5	4.25	3.75
	4.0	5.5	6.625	5.25	4.625	3.25	3.75	5.375	4.75	4.0	5.375	4.75	3.875	4.625	6.0	3.375	4.0	4.5	4.0	4.375
	3.875	5.75	5.875	5.375	4.5	5.0	4.25	4.75	3.625	4.375	3.5	4.75	5.5	5.5	2.875	5.0	5.0	3.625	3.25	3.5
	5.0	3.75	5.875	6.75	4.875	5.0	4.875	3.75	4.625	5.5	2.875	4.625	5.375	5.375	4.5	6.0	5.375	4.0	4.375	4.25
	4.0	5.75	6.625	4.875	4.875	4.25	4.75	3.75	4.125	4.25	5.0	5.75	2.125	5.75	4.25	3.0	3.75	4.5	4.125	4.375
	4.75	5.0	4.0	4.5	4.375	4.375	4.125	3.375	5.0	4.25	2.5	2.0	3.625	3.5	2.25	3.0	3.375	3.875	4.75	4.0
	5.0	5.25	4.5	5.0	5.125	4.375	4.75	3.375	3.5	4.5	2.75	3.0	3.0	3.5	5.75	2.375	4.0	4.25	4.375	4.0
	6.5	5.0	5.375	2.875	4.875	4.0	3.75	4.375	3.875	2.625	3.25	3.0	3.875	4.75	5.375	5.375	5.375	3.875	4.375	3.5
	4.375	5.0	6.0	4.5	5.375	4.25	3.75	3.5	4.125	2.75	3.75	4.0	4.875	4.75	4.25	4.375	3.875	4.5	4.375	3.875
	5.0	4.25	5.625	3.75	3.5	4.375	3.5	4.5	4.375	4.0	4.5	5.875	5.375	4.125	4.25	3.0	3.875	4.5	4.0	4.125
	5.0	5.75	5.375	4.375	3.75	4.5	3.875	2.75	4.375	3.125	3.875	5.0	4.625	4.625	5.0	4.5	4.125	4.0	4.125	3.0
	5.375	4.25	5.25	5.0	5.0	4.0	3.875	7.5	4.5	4.75	5.25	5.875	4.125	4.0	4.5	5.0	4.875	3.0	4.875	3.75
	4.875	5.375	4.875	5.125	5.875	4.875	4.375	3.875	3.875	4.625	5.5	4.75	2.0	4.5	5.0	5.0	4.5	4.5	4.25	3.75
Averages	4.975	5.287	5.131	4.700	4.766	4.320	4.037	3.933	4.276	4.200	4.160	4.476	4.357	4.616	4.770	4.745	4.501	4.116	4.433	3.929

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	6.625	2.6082	B¹	5.875	2.3129	B¹	5.0	1.9685	B¹	5.75	2.2637	B¹	6.75	2.6574	B³	4.75	1.8700
	B³	7.375	2.9035	B³	5.0	1.9685	B³	5.625	2.2145	B³	5.875	2.3129	B³	6.75	2.6574	B³	5.50	2.1653
	B²	8.25	3.2480	B³	5.0	1.9685	B²	5.50	2.1653	B²	5.875	2.3129	B²	6.50	2.5591	B³	5.125	2.0177
	B⁴	6.75	2.6574	.....	.....	.....	.....	.....	.....	.....	.....	.....	B⁴	6.50	2.5591	.....	.....	.....
Highest	.....	8.25	3.2480	.....	6.0	2.3622	.....	5.625	2.2145	.....	5.875	2.3129	.....	6.75	2.6574	.....	5.50	2.1653
Minimum measurements.	B¹	3.0	1.1811	B¹	3.50	1.3779	B¹	2.50	0.9842	B¹	2.50	0.9842	B¹	2.375	0.9350	B³	3.0	1.1811
	B³	3.50	1.3779	B³	3.0	1.1811	B²	2.0	1.1811	B³	1.50	0.5905	B³	2.375	0.9350	B³	3.0	1.811
	B³	3.125	1.2303	B³	3.0	1.1811	B³	1.75	0.6889	B³	2.0	0.7874	B²	2.0	0.7874	B³	1.125	0.4429
	B⁴	2.75	1.0826	.....	.....	.....	.....	.....	.....	.....	.....	.....	B⁴	3.25	1.2795	.....	.....	.....
Lowest	.....	2.75	1.0826	.....	3.0	1.1811	.....	1.75	0.6889	.....	1.50	0.5905	.....	2.0	0.7874	.....	1.125	0.4429
Average measurements.	B¹	4.975	1.9586	B¹	4.766	1.8763	B¹	3.933	1.5484	B¹	4.160	1.6413	B¹	4.616	1.8173	B³	4.116	1.6204
	B³	5.287	2.0814	B³	4.320	1.7007	B³	4.276	1.6834	B³	4.476	1.7622	B³	4.770	1.8779	B³	4.433	1.7452
	B²	5.131	2.0200	B²	4.037	1.5893	B²	4.200	1.6535	B²	4.357	1.7153	B²	4.745	1.8681	B²	3.929	1.5433
	B⁴	4.700	1.8503	.....	.....	.....	.....	.....	.....	.....	.....	.....	B⁴	4.510	1.7755	.....	.....	.....
Average	.....	5.023	1.9775	.....	4.374	1.7220	.....	4.136	1.6283	.....	4.334	1.7062	.....	4.660	1.8346	.....	4.156	1.6362
Measurements above average	.....	53		.....	52		.....	47		.....	52		.....	62		.....	47	
Measurements below average	.....	68		.....	38		.....	43		.....	[illegible]		.....	58		.....	[illegible]	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	COTSWOLD.																			
Catalogue number of samples..	183. SHOULDER.						183. SIDE.					183. HIP.					183. BELLY.			
Length of fiber in crimp	10¼ inches.						10½ inches.					9⅞ inches.					8 inches.			
Number of crimps per inch	——						——					——					——			
Number of section	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	4.5	5.0	4.125	4.5	4.375	3.75	4.0	4.0	4.0	3.875	4.125	5.0	5.75	5.75	4.0	3.0	5.125	4.0	4.75	3.25
	3.125	4.75	4.875	3.75	5.25	4.0	4.0	4.125	4.375	4.5	4.5	3.375	5.5	6.0	4.5	5.375	3.5	4.875	3.0	4.0
	4.5	5.5	5.25	5.0	4.375	4.5	4.25	3.75	4.5	3.0	4.25	4.375	4.25	6.0	3.625	6.0	3.375	2.75	4.75	4.5
	3.75	4.75	3.375	4.5	3.625	4.0	4.5	5.0	5.0	4.5	4.5	4.5	4.125	5.5	5.5	3.875	3.5	3.5	4.0	3.875
	4.5	4.0	4.5	3.5	5.25	4.25	4.5	4.375	4.0	3.0	4.5	4.0	2.875	4.25	4.0	4.375	4.25	4.5	4.375	3.25
	4.125	4.875	3.5	4.25	3.125	3.875	3.75	4.25	4.375	5.5	4.5	3.875	3.25	4.0	4.875	3.875	4.0	3.875	4.0	3.5
	5.0	5.0	4.25	4.25	3.375	4.625	5.625	4.375	4.0	4.875	3.875	5.5	5.0	5.5	4.5	5.375	3.875	5.125	4.875	3.0
	4.625	4.5	5.5	4.25	4.5	3.875	3.25	4.75	3.25	3.875	3.75	2.875	3.5	5.375	4.5	4.875	3.875	3.5	4.75	3.25
	3.75	4.625	4.5	4.75	4.0	4.75	4.25	4.625	3.75	4.25	2.0	4.375	5.5	2.5	2.0	4.5	4.25	4.375	4.875	2.0
	4.75	4.25	3.5	3.25	3.5	3.625	3.75	4.5	4.0	3.5	2.0	4.25	3.5	4.0	4.375	4.75	3.5	4.25	4.875	3.0
	5.0	5.0	4.375	5.0	3.375	4.5	4.25	3.75	3.75	4.5	3.75	3.875	5.0	4.0	4.0	5.0	4.75	5.0	5.375	3.5
	3.75	4.5	5.625	4.0	3.75	3.75	3.75	4.5	3.375	5.0	4.25	3.375	4.875	5.5	2.5	4.0	5.125	3.0	4.625	3.5
	4.375	5.375	4.5	4.5	4.75	4.0	2.875	3.625	3.75	4.5	4.5	4.875	3.875	3.25	5.0	3.125	3.625	4.5	4.875	3.75
	5.0	4.5	4.875	4.875	4.0	2.5	4.0	5.25	4.5	5.0	5.25	5.375	2.875	4.375	4.0	4.25	4.0	4.5	3.625	3.25
	3.875	3.75	4.75	4.5	5.0	4.0	4.25	4.625	3.375	4.875	4.5	4.5	4.875	3.5	4.0	3.875	4.375	4.875	4.875	5.0
	4.25	4.5	5.0	4.5	3.0	3.25	4.75	4.5	4.25	4.5	2.25	4.25	3.875	3.75	3.625	5.0	4.5	5.25	2.5	4.75
	5.0	5.25	3.375	4.5	4.5	4.25	4.25	5.5	2.875	4.125	3.875	4.75	4.375	3.75	3.5	2.625	4.25	4.375	3.75	5.875
	4.5	3.625	4.5	3.75	5.25	4.5	3.75	4.5	4.0	3.75	4.375	4.0	3.875	3.5	5.0	3.0	4.25	4.5	4.375	4.0
	5.0	4.5	4.5	4.5	3.125	4.25	4.0	5.0	5.125	4.5	5.5	3.875	5.25	5.0	5.5	4.75	4.5	4.5	4.875	3.625
	3.5	4.75	4.0	5.25	3.875	4.0	3.875	4.5	3.625	3.0	5.25	3.0	4.75	4.875	3.125	3.0	3.5	4.125	4.375	4.375
	3.875	4.75	4.25	4.0	3.5	4.625	3.875	3.0	3.5	2.75	4.0	4.5	4.5	5.375	3.875	5.0	3.75	3.875	3.875	2.875
	3.5	4.375	4.0	5.0	4.5	4.625	4.0	4.0	2.0	4.0	4.0	4.375	5.25	4.0	4.5	3.0	4.875	4.5	4.5	4.625
	4.25	4.25	3.25	5.375	4.5	2.875	3.5	3.375	2.5	4.0	4.25	4.0	4.0	3.75	4.875	5.0	4.5	5.5	5.0	5.25
	4.375	4.375	3.5	4.5	3.5	4.5	4.0	4.0	4.875	5.0	3.0	5.25	4.5	3.25	5.125	4.5	3.875	4.5	4.0	3.75
	5.0	4.0	3.75	4.0	2.5	5.0	4.25	4.625	4.5	3.5	4.125	3.75	5.375	5.375	5.0	4.25	4.125	4.5	4.5	3.375
	4.5	4.25	3.625	4.125	5.5	4.375	4.375	4.125	3.625	3.25	5.5	4.0	3.875	3.5	3.25	5.0	4.625	3.75	4.75	3.5
	3.875	3.875	5.375	4.875	3.5	3.75	2.875	3.625	3.5	5.0	4.25	3.25	3.75	4.0	4.75	4.5	4.375	3.75	4.5	3.5
	4.125	4.5	4.375	4.5	4.0	4.5	4.125	5.25	5.0	4.25	3.125	4.0	3.875	4.5	3.5	3.0	4.125	3.5	4.5	4.75
	3.375	4.75	4.125	4.375	3.0	4.5	4.5	3.5	3.5	2.125	3.75	3.5	3.875	5.5	3.25	2.5	3.625	4.0	4.375	2.5
	4.5	4.5	4.5	3.5	4.0	3.0	5.0	4.625	5.0	3.75	4.375	3.875	4.375	4.375	2.25	4.0	3.125	5.0	4.875	4.0
Averages	4.275	4.554	4.320	4.420	4.016	4.066	4.104	4.320	3.929	4.075	4.062	4.150	4.375	4.466	4.083	4.179	4.121	4.275	4.399	3.779

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:												
Maximum measurements.	B¹	5.0	1.9685	B¹	5.625	2.2145	B¹	5.5	2.1653	B¹	5.125	2.0177
	B²	5.5	2.1653	B²	5.5	2.1653	B²	5.75	2.2637	B²	5.5	2.1653
	B³	5.625	2.2145	B³	5.125	2.0177	B³	6.0	2.3622	B³	5.375	2.1161
	B⁴	5.375	2.1161	B⁴	5.5	2.1653	B⁴	5.5	2.1653	B⁴	5.875	2.3129
	B⁵	5.5	2.1653	B⁵	5.5	2.1653	B⁵	6.0	2.3622	.....	.....	.....
	B⁶	5.0	1.9685	.....	.....	.....	.....	.....	.....	.....	.....	.....
Highest	.....	5.625	2.2145	.....	5.625	2.2145	.....	6.0	2.3622	.....	5.875	2.3129
Minimum measurements.	B¹	3.125	1.2303	B¹	2.875	1.1318	B¹	2.875	1.1318	B¹	3.125	1.2303
	B²	3.625	1.4271	B²	3.0	1.1811	B²	2.875	1.1318	B²	2.75	1.0826
	B³	3.25	1.2795	B³	2.0	0.7874	B³	2.5	0.9842	B³	2.5	0.9842
	B⁴	3.25	1.2795	B⁴	2.125	0.8366	B⁴	2.0	0.7874	B⁴	2.0	0.7874
	B⁵	2.5	0.9842	B⁵	2.0	0.7874	B⁵	2.5	0.9842	.....	.....	.....
	B⁶	2.5	0.9842	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lowest	.....	2.5	0.9842	.....	2.0	0.7874	.....	2.0	0.7874	.....	2.0	0.7874
Average measurements..	B¹	4.275	1.6830	B¹	4.104	1.6157	B¹	4.150	1.6338	B¹	4.121	1.6224
	B²	4.554	1.7929	B²	4.320	1.7007	B²	4.375	1.7224	B²	4.275	1.6830
	B³	4.320	1.7007	B³	3.929	1.5468	B³	4.466	1.7582	B³	4.399	1.7318
	B⁴	4.420	1.7401	B⁴	4.075	1.6043	B⁴	4.083	1.6074	B⁴	3.779	1.4877
	B⁵	4.016	1.5810	B⁵	4.062	1.5992	B⁵	4.179	1.6452	.....	.....	.....
	B⁶	4.066	1.6007	.....	.....	.....	.....	.....	.....	.....	.....	.....
Average	.....	4.275	1.6830	.....	4.098	1.6133	.....	4.245	1.6712	.....	4.143	1.6310
Measurements above average..	.....	96		.....	79		.....	77		.....	63	
Measurements below average..	.....	84		.....	71		.....	73		.....	57	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	COTSWOLD.																	
Catalogue number of samples..	184. SHOULDER.				184. SIDE.				184. HIP.				184. BELLY.			185. SHOULDER.			
Length of fiber in crimp.....	6½ inches.				6½ inches.				8 inches.				3½ inches.			8½ inches.			
Number of crimps per inch....	——				——				——				——			——			
Number of section	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	4.125	4.0	3.625	4.625	4.75	3.875	4.75	5.25	5.0	5.25	5.25	4.75	3.375	3.25	4.375	4.5	4.125	3.875	4.25
	3.125	4.75	3.625	5.5	5.0	5.5	4.375	5.0	4.5	5.25	5.25	5.0	5.375	4.75	4.375	5.0	5.25	4.0	3.25
	4.5	4.0	2.5	4.5	4.25	3.625	5.75	4.875	4.0	6.625	5.875	4.0	4.0	4.0	4.5	3.75	4.5	3.75	3.5
	4.75	3.25	4.75	4.125	5.25	5.0	5.375	4.5	4.0	4.75	5.25	5.875	3.5	3.125	4.375	5.0	5.0	4.25	4.375
	4.75	5.5	3.5	5.875	3.0	4.5	3.875	4.0	5.5	5.5	6.0	4.375	4.375	4.25	4.0	3.25	3.0	4.875	2.875
	4.5	3.5	4.25	3.5	4.375	4.375	5.0	5.25	3.75	5.75	3.75	4.125	4.0	3.5	4.5	3.75	3.875	4.25	3.5
	4.25	4.0	3.5	5.625	4.875	3.875	5.125	3.375	4.875	5.375	5.5	4.75	4.5	4.125	3.375	3.5	5.375	4.125	4.5
	4.375	3.625	4.375	5.375	3.25	3.25	4.25	4.5	4.5	5.875	5.5	4.0	4.25	3.0	5.0	3.625	4.875	4.125	4.5
	3.25	3.875	2.625	2.625	3.75	4.375	5.375	4.5	3.875	4.5	5.0	4.125	4.0	3.5	4.75	3.5	4.0	4.0	4.5
	3.75	4.0	3.25	4.375	5.0	4.125	5.0	5.0	4.5	5.5	4.5	4.875	4.375	4.75	4.5	4.25	4.5	4.0	3.25
	4.75	5.375	4.375	4.875	4.625	4.5	4.25	4.5	4.25	5.0	4.75	4.75	4.25	4.75	3.625	3.5	4.5	3.375	3.5
	4.5	3.375	5.5	5.125	5.125	5.625	5.0	4.0	4.625	4.25	5.25	6.0	4.5	5.0	3.5	3.0	4.75	1.5	3.75
	3.5	4.625	3.5	3.375	4.0	3.875	4.75	6.0	5.5	5.5	5.25	4.875	4.25	5.25	5.25	4.0	4.5	3.375	3.5
	3.5	3.0	2.875	5.5	3.5	4.0	5.25	5.25	5.25	5.25	4.0	4.5	4.875	5.125	3.875	3.375	3.125	3.5	4.125
	3.0	3.75	4.5	4.125	3.5	6.25	5.5	5.75	4.375	5.75	4.625	5.875	5.375	4.125	3.25	4.0	4.125	4.0	5.0
	3.625	5.5	5.5	5.0	5.625	4.5	5.25	5.5	4.25	5.375	4.75	5.5	5.0	5.375	3.5	3.375	3.875	4.75	4.0
	4.5	3.5	3.5	5.5	4.0	3.5	5.5	5.0	4.0	5.25	5.25	4.75	4.625	4.125	3.5	3.75	4.875	3.75	3.5
	2.75	3.75	5.0	4.0	5.0	5.75	4.5	4.375	3.875	4.5	5.5	5.375	5.5	4.875	3.5	4.0	4.125	4.0	3.0
	3.5	0.0	4.5	3.25	4.875	5.5	5.0	4.5	4.625	4.75	4.75	5.0	3.25	3.875	3.25	3.625	4.375	4.5	3.375
	4.25	4.5	5.5	3.5	3.875	5.375	5.0	3.5	4.375	4.875	4.5	5.0	4.0	5.25	5.25	4.0	4.5	3.625	3.75
	3.0	4.5	4.375	2.5	4.5	5.5	4.25	5.625	5.0	5.75	4.25	5.375	4.875	5.0	4.125	3.5	5.75	3.625	4.5
	3.125	4.75	4.375	3.125	3.875	3.75	3.875	5.0	4.875	5.625	5.375	5.0	3.25	4.625	3.5	4.0	4.75	3.625	4.0
	4.0	4.0	4.75	2.75	3.25	5.0	3.375	3.25	4.5	5.0	4.875	5.0	5.0	3.375	3.75	3.25	4.875	4.0	3.0
	3.375	4.0	4.375	3.875	1.125	4.75	0.0	5.5	4.5	5.25	4.625	4.5	4.375	3.875	4.25	4.0	4.875	5.75	3.5
	3.5	0.0	5.25	4.375	4.375	4.5	4.0	4.5	5.0	5.25	4.5	4.75	4.375	4.0	4.0	3.5	5.0	3.75	3.5
	2.5	5.875	4.0	3.375	4.625	5.375	4.75	5.375	3.75	4.625	5.375	5.5	3.5	4.375	4.125	4.25	4.875	4.0	4.375
	4.875	4.625	5.25	3.5	3.5	6.0	4.75	3.375	4.875	5.375	5.125	5.0	3.5	5.5	3.5	4.25	4.875	4.625	4.375
	3.75	5.5	4.0	4.0	4.125	4.5	3.875	4.25	4.5	6.25	4.75	5.125	5.0	4.5	3.5	3.75	3.75	3.75	4.125
	5.0	4.5	3.5	3.375	3.5	5.0	5.0	5.375	4.0	5.25	5.0	5.5	5.5	3.875	5.0	4.5	4.5	3.625	3.5
Averages	3.8	4.875	4.025	3.25	3.25	4.875	4.0	3.5	4.75	5.0	5.375	5.25	3.875	4.875	4.25	4.375	4.75	4.125	2.875
	3.840	4.416	4.174	4.050	4.208	4.720	4.758	4.612	4.512	5.108	4.975	4.866	4.337	4.090	4.085	2.870	4.556	3.883	3.858

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	5.0	1.9685	B²	5.625	2.2145	B¹	5.5	2.1653	B¹	5.5	2.1653	B¹	5.0	1.9685
	B²	6.0	2.3622	B²	6.25	2.4606	B²	6.625	2.6082	B²	5.5	2.1653	B²	5.75	2.2637
	B³	5.5	2.1653	B³	6.0	2.3622	B³	6.0	2.3622	B³	5.25	2.0669	B³	5.75	2.2637
	B⁴	5.875	2.3129	B⁴	6.0	2.3622	B⁴	6.0	2.2632	.....	.....	.....	B⁴	5.25	2.0669
Highest	.....	6.0	2.3622	.....	6.25	2.4606	.....	6.625	2.6082	.....	5.5	2.1653	.....	5.75	2.2637
Minimum measurements.	B¹	2.5	0.9842	B¹	3.0	1.1811	B¹	3.75	1.4763	B¹	3.25	1.2795	B¹	3.0	1.1811
	B²	3.0	1.1811	B²	3.25	1.2795	B²	2.75	1.0826	B²	3.0	1.1811	B²	3.125	1.2303
	B³	2.5	0.9842	B³	3.375	1.3287	B³	3.75	1.4763	B³	3.25	1.2795	B³	1.5	0.5905
	B⁴	2.5	0.9842	B⁴	3.0	1.1811	B⁴	3.0	1.1811	.....	.....	.....	B⁴	2.875	1.1318
Lowest	.....	2.5	0.9842	.....	3.0	1.1811	.....	2.75	1.0826	.....	3.0	1.1811	.....	1.5	0.5905
Average measurements..	B¹	3.849	1.5153	B¹	4.208	1.6506	B¹	4.512	1.7763	B¹	4.337	1.7074	B¹	3.870	1.5236
	B²	4.416	1.7385	B²	4.720	1.8582	B²	5.108	2.0110	B²	4.090	1.7318	B²	4.556	1.7944
	B³	4.174	1.6433	B³	4.758	1.8732	B³	4.975	1.9586	B³	4.085	1.6082	B³	3.883	1.5287
	B⁴	4.050	1.5944	B⁴	4.612	1.8157	B⁴	4.866	1.9157	.....	.....	.....	B⁴	3.858	1.5188
Average	.....	4.122	1.6228	.....	4.574	1.8007	.....	4.865	1.9153	.....	4.273	1.6822	.....	4.042	1.5013
Measurements above average..		44			58			57			43			54	
Measurements below average..		44			58			53			47			54	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

COTSWOLD.

Catalogue number of samples	185. SIDE.					185. HIP.				185. BELLY.				186. SHOULDER.				186. SIDE.			
Length of fiber in crimp	9½ inches.					7½ inches.				6½ inches.				6 inches.				6¾ inches.			
Number of crimps per inch	——					——				——				——				——			
Number of section	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	3.875	4.25	4.0	3.625	3.25	4.0	3.5	4.5	4.0	3.625	3.75	2.0	2.875	5.0	5.0	5.25	5.625	3.875	4.375	4.375	3.875
	3.625	4.25	4.25	4.25	3.5	4.5	4.5	4.0	4.5	3.0	3.375	4.75	2.5	4.375	4.0	4.625	4.5	3.0	4.875	4.375	3.5
	4.0	4.5	3.0	5.375	5.25	4.0	4.875	4.125	5.25	4.75	3.875	3.375	3.75	4.0	3.875	5.0	5.0	2.5	4.125	5.375	5.375
	4.25	4.125	4.0	5.0	3.75	3.25	4.625	4.375	4.125	3.5	4.0	4.75	3.75	4.75	5.375	4.0	4.5	5.375	4.25	5.25	4.875
	4.5	4.0	3.875	5.5	5.0	3.375	4.625	4.5	5.0	4.0	4.625	4.0	3.25	4.25	3.625	4.5	4.0	3.0	3.875	3.75	4.5
	4.0	5.0	3.625	4.875	4.25	3.0	3.875	3.75	2.0	3.375	3.5	4.5	3.25	4.5	4.5	5.875	6.0	4.0	4.125	5.375	2.875
	4.5	3.5	3.875	3.875	2.875	3.5	4.625	3.875	4.5	4.125	4.5	3.875	3.75	4.25	3.375	4.0	4.75	4.5	2.875	4.0	2.25
	4.0	5.25	3.125	4.125	5.25	4.75	4.875	5.5	4.0	3.0	3.5	3.875	3.625	4.375	4.75	4.5	3.5	3.625	4.0	5.5	6.0
	4.25	4.5	4.0	5.0	3.25	5.0	6.0	4.125	5.25	3.375	4.125	3.375	4.5	4.25	5.875	5.0	5.25	4.5	5.5	4.0	5.0
	4.5	4.125	4.125	3.25	4.375	5.5	4.125	4.625	5.0	4.0	4.25	4.25	2.75	4.875	3.5	4.25	4.5	4.0	3.5	3.0	4.5
	3.5	3.625	4.5	3.75	4.375	3.875	5.625	5.0	4.5	3.75	4.375	4.0	3.5	4.25	3.5	5.25	4.5	5.0	5.75	4.0	3.875
	4.375	4.0	3.625	4.5	4.25	3.375	5.5	4.5	2.5	4.5	3.25	3.375	3.0	3.875	4.875	5.875	4.75	4.75	3.0	5.0	4.375
	3.5	4.75	4.75	5.0	3.875	4.625	4.25	4.5	4.125	4.5	4.375	4.375	4.0	4.875	4.75	4.25	4.5	4.0	4.5	2.375	5.0
	4.125	4.5	4.25	4.875	4.5	4.5	4.125	5.25	5.0	3.5	2.875	4.0	4.5	5.25	5.375	4.0	5.0	5.25	5.0	3.5	2.375
	3.875	4.0	3.875	4.75	3.875	3.375	6.0	4.25	5.25	3.5	4.25	3.875	3.25	3.75	4.0	5.75	4.0	3.5	5.5	4.0	4.0
	3.625	4.0	3.375	3.25	4.25	4.375	4.875	4.5	4.0	3.875	4.875	3.875	4.0	3.375	5.0	4.0	4.5	4.5	3.875	2.75	4.75
	4.5	3.875	4.0	4.25	3.25	5.0	4.0	3.625	5.25	4.0	4.5	4.5	3.25	5.875	4.375	4.75	5 5	4.25	4.75	3.25	4.5
	4.0	3.5	3.625	4.0	3.5	4.75	5.25	3.75	3.75	3.25	3.5	4.75	4.25	4.5	5.375	4.0	4 25	4.875	3.875	4.125	4.5
	4.25	3.0	4.375	4.875	4.875	4.25	4.625	4.125	4.875	3.25	3.5	4.0	4.0	3.815	5.0	4.75	3.375	4.25	3.5	4.25	2.875
	4.125	4.5	3.25	4.625	4.625	4.375	5.375	3.625	5.125	3.75	3.25	4.125	3.75	4.75	4.625	4.375	4.5	4.875	4.625	4.25	3.0
	4.375	4.0	4.25	3.5	4.75	3.5	4.5	2.25	4.625	4.375	4.75	4.0	4.0	3.375	4.375	4.25	4.375	3.5	2.5	3.125	5.0
	5.0	5.125	4.0	4.375	4.0	4.5	5.0	4.25	3.5	4.0	3.5	4.0	4.5	3.75	5.0	4.0	5.75	3.375	3.375	4.0	5.25
	4.0	4.875	3.75	4.375	3.875	5.0	4.5	3.875	2.125	4.375	4.0	4.75	4.375	3.75	4.5	4.5	4.125	4.0	2.625	4.5	3.75
	4.0	4 75	4.0	3.875	4.75	4.375	4.875	5.25	4.875	4.75	4.5	4.5	3.375	5.0	4.5	4.125	5.25	5.0	4.375	4.5	4.5
	4.0	3.0	4.25	4.0	4.25	4.375	4.75	4.5	5.25	4.5	4.0	4.5	3.25	5.375	4.375	5.25	3.625	2.875	6.0	4.5	4.25
	3.5	4.75	3.875	4.125	4.0	4.375	4.0	2.75	4.5	3.25	3.0	3.125	3.5	4.5	5.625	5.25	3.0	4.0	5.5	4.125	5.0
	4.0	4.625	4.25	5.0	4.875	3.875	4.875	4.875	5.0	4.75	4.25	5.0	4.0	4.75	5.0	4.25	3.5	4.25	4.75	5.625	5.0
	4.375	3.625	4.875	4.875	3.875	4.875	3.25	4.25	4.875	3.75	3.5	3.75	4.0	4.625	4.0	4.75	3.5	6.0	5.25	3.5	7.0
	3.625	4.25	4.25	4.25	3.75	4.0	5.25	4.625	4.5	4.0	4.0	4.0	4.625	4.0	4.0	4.875	4.875	3.75	5.5	4.125	5.0
	3.875	5.0	4.375	5.0	4.75	4.5	2.75	4.75	5.75	4.875	4.5	4.0	3.375	3.5	5.0	6.0	4.375	4.875	5.25	5.125	6.5
Averages	4.070	4.208	3.972	4.404	4.151	4.225	4.633	4.262	4.433	5.908	3.908	4.041	3.683	4.387	4.570	4.708	4.362	4.165	4.300	4.187	4.441

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements	B¹	5.0	1.9685	B¹	5.5	2.1653	B¹	4.875	1.9192	B¹	5.875	2.3129	B¹	6.000	2.3622
	B²	5.25	2.0669	B²	6.0	2.3622	B²	4.875	1.9192	B²	5.875	2.3129	B²	6.000	2.3622
	B³	4.875	1.9192	B³	5.5	2.1653	B³	5.000	1.9685	B³	6.000	2.3622	B³	5.750	2.2637
	B⁴	5.5	2.1653	B⁴	5.75	2.2637	B⁴	4.625	1.8208	B⁴	6.000	2.3622	B⁴	6,500	2.5590
	B⁵	5.25	2.0669	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Highest	.....	5.5	2.1653	.....	6.0	2.3622	.....	5.000	1.9685	.....	6.000	2.3622	.....	6.500	2.5590
Minimum measurements	B¹	3.5	1.3779	B¹	3.0	1.1811	B¹	3.000	1.1811	B¹	3.375	1.3287	B¹	2.500	0.9842
	B²	3.0	1.1811	B²	2.75	1.0826	B²	2.875	1.1318	B²	3.375	1.3287	B²	2.500	0.9842
	B³	3.0	1.1811	B³	2.25	0.8858	B³	2.000	0.7874	B³	4.000	1.5748	B³	2.375	0.9350
	B⁴	3.25	1.2795	B⁴	2.0	0.7874	B⁴	2.500	0.9842	B⁴	3.000	1.1811	B⁴	2.250	0.8858
	B⁵	2.875	1.1318	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lowest	.....	2.875	1.1318	.....	2.0	0.7874	.....	2.000	0.7874	.....	3.000	1.1811	.....	2.250	0.8858
Average measurements	B¹	4.070	1.6023	B¹	4.225	1.6633	B¹	3.908	1.5385	B¹	4.387	1.7271	B¹	4.165	1.6397
	B²	4.208	1.6566	B²	4.633	1.8240	B²	3.908	1.5385	B²	4.570	1.7992	B²	4.800	1.6929
	B³	3.972	1.5637	B³	4.262	1.6779	B³	4.041	1.5909	B³	4.708	1.8535	B³	4.187	1.6484
	B⁴	4.404	1.7338	B⁴	4.433	1.7452	B⁴	3.683	1.4490	B⁴	4.362	1.7173	B⁴	4.441	1.7484
	B⁵	4.151	1.6342	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Average	.....	4.161	1.6381	.....	4.388	1.7275	.....	3.885	1.5295	.....	4.506	1.7740	.....	4.273	1.6822
Measurements above average	.....	72		.....	67		.....	64		.....	52		.....	58	
Measurements below average	.....	78		.....	53		.....	56		.....	68		.....	62	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	COTSWOLD.															
Catalogue number of samples..	186. HIP.				186. BELLY.			187. SHOULDER.					187. SIDE.				
Length of fiber in crimp.....	9 inches.				5½ inches.			7½ inches.					8½ inches.				
Number of crimps per inch...	——				——			——					——				
Number of section	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.	B⁵.
Actual measurement in centimillimeters.	4.75	5.5	5.875	3.5	4.0	5.75	4.375	3.875	3.75	4.25	3.75	4.0	4.25	5.5	5.0	3.625	3.0
	4.875	7.125	4.5	6.0	4.75	5.375	5.625	3.875	5.0	3.75	3.75	4.875	4.5	3.75	3.875	4.0	3.25
	4.0	4.0	3.5	3.5	4.75	6.125	3.625	4.375	4.0	5.375	3.625	4.5	4.0	5.5	4.0	3.75	3.5
	5.5	4.875	5.5	4.875	4.75	4.375	3.25	4.0	4.375	4.375	5.25	5.0	4.5	5.0	4.0	3.125	4.125
	4.5	4.875	5.5	5.125	4.625	5.0	3.0	4.125	3.5	3.75	3.5	3.75	2.875	5.25	3.125	2.0	4.25
	3.25	4.375	3.5	1.75	6.0	5.5	3.5	3.75	4.5	4.0	4.5	4.75	4.125	5.125	3.75	2.125	5.0
	4.5	5.0	5.625	3.75	3.75	5.0	4.375	5.0	4.875	5.75	3.875	5.75	3.5	5.75	3.25	3.0	4.0
	5.375	7.25	3.75	4.5	4.0	5.875	4.0	3.5	3.625	4.25	1.75	3.875	3.25	5.25	2.875	3.0	5.0
	5.0	4.375	5.5	4.75	4.875	3.375	3.375	3.5	5.25	4.875	2.5	2.875	4.5	5.375	4.75	3.5	5.375
	6.25	4.5	5.75	1.5	5.5	4.625	3.75	4.0	4.0	2.875	3.375	3.75	5.25	4.875	4.5	4.625	2.75
	4.0	4.0	3.75	4.25	3.75	5.0	4.625	4.0	3.875	4.0	3.25	2.625	4.0	7.0	3.25	2.5	3.875
	4.625	5.0	5.625	4.0	6.5	4.25	4.375	4.5	5.25	2.125	2.875	4.75	4.25	5.0	3.75	4.125	5.375
	4.125	3.25	4.375	2.5	3.375	5.5	3.0	3.5	4.125	3.25	4.375	3.5	3.75	5.0	6.25	2.875	4.25
	5.0	6.25	3.75	4.5	3.75	3.375	4.875	3.25	4.5	3.5	4.875	4.375	3.875	6.0	3.375	5.0	5.25
	4.125	5.0	5.5	2.25	6.0	3.75	4.0	3.5	4.25	5.0	2.875	1.875	4.75	3.375	4.75	5.5	3.5
	4.25	4.75	4.625	3.5	3.875	5.75	3.375	4.75	4.5	4.625	3.875	3.75	3.25	3.875	3.5	5.625	3.875
	6.5	5.125	3.0	3.5	3.875	5.375	5.75	4.5	3.375	3.875	4.125	2.875	4.125	4.875	3.5	4.0	2.875
	4.0	5.5	5.25	3.25	3.75	4.5	4.5	4.25	4.5	4.375	4.0	2.875	4.0	3.5	2.75	3.5	3.5
	6.0	4.0	3.0	4.5	4.875	4.375	4.25	4.25	5.25	4.75	4.875	2.875	5.75	4.5	2.25	4.25	3.875
	4.125	6.0	4.25	3.0	5.25	5.75	4.875	3.75	5.25	4.875	1.875	3.5	4.875	3.5	4.0	3.5	4.875
	4.375	4.75	3.25	6.5	3.875	4.25	5.0	4.375	3.875	4.125	3.5	3.5	4.0	5.75	5.5	2.5	2.75
	2.375	5.75	3.875	4.25	4.75	4.5	4.5	3.25	4.5	3.625	4.0	3.75	3.75	5.25	4.0	4.0	2.5
	4.75	4.5	3.5	5.25	4.875	3.75	4.875	2.625	5.75	3.875	3.75	3.625	5.625	4.875	3.5	4.375	3.875
	5.875	5.0	6.5	6.25	4.5	4.5	4.25	4.0	4.25	5.0	4.25	2.875	3.25	3.875	3.75	4.875	3.875
	5.5	4.75	4.625	2.75	4.125	5.25	4.75	3.75	4.625	4.5	4.0	3.25	4.375	4.5	4.5	2.75	4.5
	6.5	6.125	4.0	4.75	3.875	5.25	3.375	4.25	4.375	2.75	3.5	3.875	4.0	3.5	4.75	2.75	3.5
	5.25	3.75	4.0	4.875	5.875	4.75	4.75	3.5	4.0	3.75	4.0	3.75	4.25	4.5	3.25	4.0	4.75
	5.5	4.0	6.5	5.0	4.25	4.25	4.25	4.5	2.875	5.0	3.875	3.75	3.0	3.875	3.125	3.0	4.625
	4.875	3.0	4.25	3.125	5.0	4.0	4.5	4.125	4.0	3.5	3.375	3.375	5.25	3.5	4.25	4.375	4.625
	4.5	4.375	5.25	3.75	5.25	4.75	5.625	4.5	4.0	5.125	4.125	3.0	3.875	3.25	4.5	5.375	5.0
Averages	4.807	4.891	4.595	3.933	4.629	4.770	4.345	3.970	4.333	4.052	3.679	3.554	4.150	4.529	3.950	3.687	3.909

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:												
Maximum measurements.	B¹	6.500	2.5590	B¹	6.500	2.5590	B¹	5.000	1.9685	B¹	5.625	2.2145
	B²	7.125	2.8051	B²	6.125	2.4114	B²	5.750	2.2637	B²	7.000	2.7559
	B³	6.500	2.5590	B³	5.750	2.2637	B³	5.375	2.1161	B³	6.250	2.4606
	B⁴	6.500	2.5590	.....	.....	.....	B⁴	5.250	2.0669	B⁴	5.625	2.2145
	.....	.....	.....	.....	.....	.....	B⁵	5.000	1.9685	B⁵	5.375	2.1161
Highest	.....	7.125	2.8051	.....	6.500	2.5590	.....	5.750	2.2637	.....	7.000	2.7559
Minimum measurements.	B¹	2.375	0.9350	B¹	3.375	1.3287	B¹	2.625	1.0334	B¹	3.375	1.3287
	B²	3.000	1.1811	B²	3.875	1.3287	B²	3.375	1.3318	B²	3.000	1.1811
	B³	3.000	1.1811	B³	3.000	1.1811	B³	2.125	0.8366	B³	2.250	0.8858
	B⁴	1.500	0.5905	.....	.....	.....	B⁴	1.750	0.6889	B⁴	2.000	0.7874
	.....	.....	.....	.....	.....	.....	B⁵	1.875	0.7381	B⁵	2.500	0.9842
Lowest	.....	1.500	0.5905	.....	3.000	1.1811	.....	1.750	0.6889	.....	2.000	0.7874
Average measurements ..	B¹	4.807	1.8925	B¹	4.629	1.8224	B¹	3.936	1.5629	B¹	4.150	1.6339
	B²	4.891	1.9255	B²	4.770	1.8779	B²	4.333	1.7059	B²	4.529	1.7830
	B³	4.595	1.8090	B³	4.345	1.7106	B³	4.052	1.5952	B³	3.950	1.5551
	B⁴	4.030	1.5866	.....	.....	.....	B⁴	3.679	1.4484	B⁴	3.687	1.4515
	.....	.....	.....	.....	.....	.....	B⁵	3.554	1.3992	B⁵	3.930	1.5507
Average	.....	4.580	1.8031	.....	4.681	1.8035	.....	3.917	1.5421	.....	4.051	1.5946
Measurements above average	.....	59		.....	11		.....	76		.....	67	
Measurements below average	.....	61		.....	48		.....	74		.....	83	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	COTSWOLD.																	
Catalogue number of samples..	187. HIP.				187. BELLY.			188. SHOULDER.				188. SIDE.				188. HIP.			
Length of fiber in crimp	7½ inches.				4 inches.			6½ inches.				7½ inches.				7½ inches.			
Number of crimps per inch	——				——			——				——				——			
Number of section.....	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.
Actual measurements of centimillimeters.	3.5	4.5	3.75	4.0	3.25	2.875	4.0	3.25	4.5	4.0	1.875	4.0	3.875	5.0	4.5	3.0	7.75	2.75	3.75
	4.0	4.75	4.875	5.875	3.375	3.625	3.375	3.375	3.25	4.0	1.5	3.875	3.75	4.375	4.5	3.875	4.5	3.875	3.625
	4.875	5.375	4.0	4.5	4.0	2.625	3.5	3.625	4.0	4.0	3.0	3.875	4.5	3.375	4.125	3.25	3.0	5.0	3.5
	4.5	5.5	5.0	5.625	4.0	3.75	4.0	3.25	3.375	2.5	2.5	3.75	4.25	3.625	2.5	3.5	4.25	4.75	4.5
	4.75	4.5	5.375	5.0	4.0	2.5	3.125	3.75	4.25	3.0	2.875	4.0	3.5	5.0	2.75	3.0	5.0	4.75	3.875
	5.375	4.75	4.0	4.5	2.625	3.5	2.875	3.25	3.0	2.375	2.0	2.875	3.0	3.25	1.5	3.125	3.5	3.25	3.375
	4.5	6.0	4.5	5.5	3.5	3.75	4.0	4.75	3.75	2.5	2.375	3.375	4.0	4.0	4.0	3.125	2.25	4.5	5.5
	4.875	4.5	4.5	4.0	3.25	3.5	4.5	3.375	4.0	4.0	3.75	4.375	3.25	4.375	2.75	3.5	3.875	2.5	3.0
	5.375	4.625	4.875	3.875	3.25	4.0	3.0	3.25	3.75	3.5	1.875	4.75	3.25	4.5	3.5	3.375	5.25	3.5	3.5
	4.0	3.875	5.625	4.0	3.5	3.25	2.5	3.0	2.5	2.5	4.75	2.75	4.375	3.375	1.25	3.125	5.125	5.25	4.25
	5.0	5.0	4.0	4.25	3.5	3.625	4.0	4.0	2.5	3.0	3.875	4.25	5.5	4.125	2.5	4.125	4.125	2.25	4.25
	4.0	3.5	4.875	4.5	3.25	3.25	3.375	4.0	4.375	2.375	3.375	3.5	3.5	4.0	3.875	4.125	5.875	5.0	3.75
	4.75	5.125	3.25	3.5	4.0	3.25	3.25	2.875	2.75	2.125	3.75	3.375	4.25	4.375	4.75	3.375	5.25	4.125	3.875
	6.25	4.75	6.0	5.0	4.0	3.5	3.875	4.125	4.375	3.5	3.25	3.75	5.125	4.0	2.5	2.0	6.0	2.5	5.25
	5.375	6.0	4.5	5.25	3.625	2.875	3.375	4.375	3.25	2.625	4.25	4.375	4.5	2.75	3.5	2.75	4.25	2.5	4.25
	4.125	4.5	4.75	5.875	4.125	3.375	4.75	2.125	4.0	3.75	3.25	3.625	4.0	2.25	2.5	6.0	5.0	3.5	5.0
	3.25	3.625	3.25	3.5	3.875	3.25	4.0	2.875	3.875	2.75	2.5	4.5	2.875	2.625	1.75	3.0	4.375	5.25	4.375
	3.875	5.5	3.5	5.5	4.0	3.5	3.0	4.125	2.5	3.5	2.0	2.875	3.875	3.25	3.75	3.0	5.375	4.25	4.5
	3.5	5.25	4.375	4.5	3.75	3.0	2.625	3.125	3.25	3.75	3.5	3.375	2.625	3.5	4.25	2.75	2.875	2.5	4.375
	4.5	6.0	4.25	2.625	4.0	3.5	4.25	4.0	4.5	3.5	3.5	3.375	5.375	3.5	3.75	5.25	4.875	4.0	5.0
	3.25	5.5	4.875	4.25	4.0	4.0	2.0	3.375	5.0	3.5	3.0	3.75	3.5	3.625	3.0	4.75	4.0	4.5	4.25
	4.0	3.75	2.25	5.375	4.75	4.0	4.25	4.875	4.25	3.25	4.5	3.0	3.75	4.75	4.0	3.5	5.25	3.875	3.0
	5.5	5.75	6.0	3.625	3.5	3.5	4.0	3.0	2.5	3.375	3.5	3.75	4.75	3.875	4.5	2.5	4.75	3.25	4.75
	4.5	5.0	4.625	4.375	3.25	3.875	2.25	4.75	3.5	1.625	4.875	3.875	4.25	2.125	3.5	4.25	4.125	3.5	3.0
	4.0	4.375	4.5	5.125	3.375	3.75	3.5	3.0	3.875	3.875	2.375	2.875	3.375	4.125	4.125	4.125	5.0	4.5	5.75
	4.0	4.875	3.375	3.375	4.875	3.25	3.75	3.625	3.5	1.75	3.75	4.125	4.25	3.75	4.625	1.75	4.5	4.375	4.0
	3.875	5.5	4.0	4.0	4.375	3.875	4.0	3.0	3.5	2.875	4.0	4.5	3.75	4.25	1.375	5.25	3.5	5.0	5.5
	5.0	5.375	5.5	4.75	3.75	3.875	2.5	2.5	4.0	2.625	3.5	3.75	5.25	3.75	3.875	5.375	4.875	4.0	3.875
	4.0	5.0	4.75	3.75	4.0	4.0	4.25	3.375	3.0	4.0	3.25	3.25	5.0	3.5	2.875	3.5	4.625	5.875	4.25
	3.375	4.0	4.25	5.0	3.625	3.875	3.0	3.75	4.625	3.25	4.5	4.5	4.5	2.75	3.25	3.25	3.25	5.0	3.0
Averages	4.399	4.891	4.445	4.446	3.745	3.483	3.495	3.525	3.650	3.112	3.233	3.733	4.058	3.725	3.320	3.583	4.545	3.995	4.162

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	6.250	2.4606	B¹	4.875	1.9192	B¹	4.875	1.9192	B¹	4.750	1.8700	B¹	5.375	2.1161
	B²	6.000	2.3622	B²	4.000	1.5748	B²	4.625	1.8208	B²	5.375	2.1161	B²	7.750	3.0511
	B³	6.000	2.3622	B³	4.750	1.8760	B³	4.000	1.5748	B³	5.000	1.9685	B³	5.875	2.3129
	B⁴	5.875	2.3129		.....	.....	B⁴	4.875	1.9192	B⁴	4.750	1.8700	B⁴	5.750	2.2637
Highest	.....	6.250	2.4606	.....	4.875	1.9192	.....	4.875	1.9192	.....	5.375	2.1161	.....	5.875	2.3129
Minimum measurements.	B¹	3.250	1.2795	B¹	2.625	1.0334	B¹	2.125	0.8366	B¹	2.750	1.0826	B¹	1.75	0.6889
	B²	3.500	1.3779	B²	2.500	0.9842	B²	2.500	0.9842	B²	2.625	1.0334	B²	2.25	0.8858
	B³	2.250	0.8858	B³	2.000	0.7874	B³	1.625	0.6397	B³	2.125	0.8366	B³	2.25	0.8858
	B⁴	2.625	1.0334		.....	.....	B⁴	1.500	0.5905	B⁴	1.250	0.4921	B⁴	3.00	1.1811
Lowest	.....	2.250	0.8858	.....	2.000	0.7874	.....	1.500	0.5905	.....	1.250	0.4921	.....	1.75	0.6889
Average measurements..	B¹	4.399	1.7318	B¹	3.745	1.4744	B¹	3.525	1.3877	B¹	3.733	1.4696	B¹	3.583	1.4106
	B²	4.891	1.9255	B²	3.483	1.3712	B²	3.650	1.4370	B²	4.058	1.5976	B²	4.545	1.7893
	B³	4.445	1.7499	B³	3.495	1.3759	B³	3.112	1.2251	B³	3.725	1.4665	B³	3.995	1.5728
	B⁴	4.446	1.7503		.....	.....	B⁴	3.233	1.2728	B⁴	3.320	1.3070	B⁴	4.162	1.6385
Average	.....	4.545	1.7893	.....	3.574	1.4070	.....	3.380	1.3307	.....	3.709	1.4602	.....	4.071	1.6027
Measurements above average..	.....	56		.....	45		.....	50		.....	69		.....	62	
Measurements below average..	.....	64		.....	45		.....	61		.....	51		.....	58	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	COTSWOLD.																	
Catalogue number of samples..	188. BELLY.				189. SHOULDER.				189. SIDE.			189. HIP.			189. BELLY.			190. SHOULDER.		
Length of fiber in crimp.....	5½ inches.				4 inches.				4½ inches.			4½ inches.			2 inches.			4½ inches.		
Number of crimps per inch....	——				——				——			——			——			——		
Number of section.....	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	4.0	4.625	3.5	4.625	2.5	3.0	3.875	3.75	5.0	4.5	3.875	4.875	3.0	4.5	4.0	4.5	4.375	3.75	4.375	2.5
	4.25	3.25	3.25	3.25	3.25	3.25	3.625	3.75	3.625	3.0	4.25	3.375	4.0	4.625	4.0	4.75	3.625	4.875	4.75	3.75
	4.75	3.375	2.375	2.25	4.875	3.75	3.0	3.25	3.5	4.875	3.625	4.5	5.0	5.5	4.0	4.0	3.875	4.125	3.25	2.875
	3.5	3.0	4.875	3.375	2.75	3.375	4.5	3.0	4.375	4.5	4.25	4.375	5.5	5.0	4.125	4.25	3.375	5.375	4.25	4.0
	2.5	3.5	4.0	5.25	3.0	3.625	4.75	4.0	3.625	4.625	3.875	3.625	5.125	4.375	4.25	3.75	4.0	3.5	4.0	3.375
	3.75	3.5	4.5	4.0	3.25	4.375	4.25	3.0	4.875	4.125	4.8	5.5	4.875	3.75	3.625	4.5	3.375	3.375	4.875	3.25
	4.0	2.75	3.5	4.0	4.0	3.125	4.0	2.5	3.75	4.875	4.5	4.375	3.0	4.25	2.875	4.0	3.5	4.0	3.875	4.75
	4.5	3.375	3.75	3.75	4.5	4.0	4.25	4.0	3.875	3.0	3.375	5.0	4.75	3.5	3.625	3.75	3.25	3.875	4.75	2.75
	3.5	3.625	2.625	4.625	3.0	2.625	5.0	3.375	4.375	5.0	3.25	4.5	5.5	4.25	3.5	4.0	3.5	4.125	4.5	4.5
	4.25	3.75	5.125	3.0	3.5	4.375	4.75	4.25	5.375	4.5	3.0	4.375	4.125	3.0	4.5	4.25	3.5	4.0	4.375	4.125
	3.375	3.75	4.0	2.5	5.0	3.0	5.125	4.25	4.625	4.375	5.375	4.5	6.0	4.0	3.875	4.0	3.75	5.0	3.5	3.75
	2.875	3.5	4.75	3.125	4.25	4.125	4.25	3.625	5.0	4.875	4.75	3.75	2.5	4.75	4.375	4.125	3.25	4.5	4.0	5.0
	3.25	3.75	4.5	2.875	4.25	4.25	5.25	3.375	4.75	4.125	4.5	3.5	3.75	4.0	3.0	4.375	3.75	4.75	4.75	4.5
	3.25	3.5	3.75	4.0	4.75	3.5	4.25	3.5	4.5	5.25	5.0	3.5	4.75	5.125	4.75	3.5	3.0	4.5	3.5	3.375
	3.5	4.0	4.25	4.0	4.375	4.875	3.25	4.5	3.5	4.25	5.0	5.875	5.0	4.75	3.625	5.0	3.25	3.875	5.125	3.125
	2.75	3.625	4.25	4.25	4.5	5.0	4.0	4.0	3.0	6.0	5.5	5.0	3.5	4.25	5.0	4.0	3.75	4.0	3.375	3.375
	3.5	4.125	4.0	3.5	4.0	4.5	5.25	3.875	3.75	4.625	3.0	4.0	5.5	3.875	3.875	4.25	3.25	4.125	5.875	4.25
	3.375	4.0	3.5	3.5	3.375	3.5	4.375	3.5	4.75	4.75	3.625	4.875	2.375	5.5	3.75	3.75	4.375	5.0	3.75	5.375
	3.25	3.25	3.5	4.0	3.0	5.0	5.5	3.25	4.0	3.5	4.25	4.375	4.5	3.625	4.875	3.0	4.25	5.0	4.75	3.5
	3.25	4.0	2.5	3.0	3.25	4.875	2.625	2.5	4.875	4.25	4.125	3.375	4.5	3.875	4.5	4.875	4.875	3.75	4.0	4.375
	3.75	4.0	3.0	3.25	2.5	2.625	4.875	4.0	5.0	4.25	3.25	2.5	3.75	4.125	4.875	3.5	3.75	4.375	3.75	4.5
	3.375	3.625	3.5	4.875	4.75	4.75	2.25	4.375	4.125	3.625	5.75	4.75	5.25	4.25	3.75	4.0	3.375	3.5	4.75	3.5
	4.0	4.0	5.25	4.375	4.5	3.25	4.25	4.125	4.75	4.875	5.375	4.75	3.75	5.5	3.0	4.0	5.0	4.375	4.625	3.5
	2.375	4.0	3.875	3.875	4.375	4.0	3.5	4.0	5.0	5.5	4.5	5.25	5.0	4.75	4.375	4.5	3.875	4.25	4.375	4.0
	4.5	4.5	4.75	4.75	4.0	3.5	2.875	3.75	3.5	3.5	5.0	4.375	6.0	3.5	3.875	4.375	3.5	3.5	4.0	3.0
	3.75	3.5	3.75	4.125	3.0	5.0	4.0	4.375	4.875	4.875	5.0	3.5	3.5	4.25	4.875	3.25	4.5	4.75	4.375	4.25
	2.375	4.75	3.5	4.0	3.125	3.0	2.625	4.375	4.0	4.375	4.375	2.75	3.25	3.0	4.0	4.25	3.75	4.875	4.75	3.875
	4.5	3.5	5.0	2.625	3.5	4.375	4.0	3.25	5.0	4.5	4.25	5.0	4.75	3.375	3.25	3.625	3.0	4.5	3.75	4.5
	3.875	3.375	3.875	4.5	3.0	3.5	3.75	3.625	4.375	4.25	4.125	3.375	4.875	5.25	2.625	3.75	3.875	3.5	5.125	3.5
	3.5	5.0	4.5	4.25	4.5	3.5	2.75	3.5	4.0	5.125	4.875	4.875	2.5	3.625	5.0	3.75	3.25	4.5	4.0	4.25
Averages.....	3.616	3.750	3.916	3.700	3.757	3.882	4.021	3.687	4.325	4.462	4.349	4.278	4.329	4.187	3.991	4.054	3.725	4.254	4.291	3.779

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	4.75	1.8701	B¹	5.5	1.9685	B¹	5.875	2.1161	B¹	5.875	2.3129	B¹	5.0	1.9685	B¹	5.375	2.1161
	B²	5.0	1.9685	B²	5.0	1.9685	B²	6.0	2.3622	B²	6.0	2.3622	B²	5.0	1.9685	B²	5.875	2.3129
	B³	5.25	2.0669	B³	5.5	2.1653	B³	5.75	2.2637	B³	5.5	2.1653	B³	5.0	1.9685	B³	5.375	2.1161
	B⁴	4.875	1.9192	B⁴	4.375	1.7224	....	.....	.....	....	.....	.....	....	.....	.....	....	.....	.....
Highest	.....	5.25	2.0669	.....	5.5	2.1653	....	6.0	2.3622	....	6.0	2.3622	....	5.0	1.9685	....	5.875	2.3129
Minimum measurements.	B¹	2.50	0.9842	B¹	2.5	0.9842	B¹	3.0	1.1811	B¹	2.5	0.9842	B²	2.625	1.0334	B¹	3.375	1.3287
	B²	2.75	1.0826	B²	2.625	1.0334	B²	3.0	1.1811	B²	2.5	0.9842	B³	3.0	1.1811	B²	3.375	1.3287
	B³	2.375	0.9350	B²	2.25	0.8858	B³	3.0	1.1811	B³	3.0	1.1811	B³	3.0	1.1811	B³	2.5	0.9842
	B⁴	2.25	0.8858	B⁴	2.5	0.9842	....	.....	.....	....	.....	.....	....	.....	.....	....	.....	.....
Lowest	.....	2.25	0.8858	.....	2.25	0.8858	....	3.0	1.1811	....	2.5	0.9842	....	2.625	1.0334	....	2.5	0.9842
Average measurements..	B¹	3.613	1.4224	B¹	3.757	1.4791	B¹	4.325	1.7027	B¹	4.278	1.6843	B¹	3.991	1.5712	B¹	4.254	1.6747
	B²	3.750	1.4763	B²	3.882	1.5284	B²	4.462	1.7566	B²	4.329	1.7043	B²	4.054	1.5960	B²	4.291	1.6893
	B³	3.916	1.5417	B³	4.021	1.5830	B³	4.349	1.7122	B³	4.187	1.6484	B³	3.725	1.4665	B³	3.779	1.4877
	B⁴	3.700	1.4566	B⁴	3.687	1.4515	....	.....	.....	....	.....	.....	....	.....	.....	....	.....	.....
Average	.....	3.744	1.4740	.....	3.831	1.5082	....	4.378	1.7236	....	4.264	1.6787	....	3.923	1.5444	....	4.104	1.6157
Measurements above average..	.....	65		.....	62		....	45		....	47		....	43		....	48	
Measurements below average..	.....	54		.....	57		....	45		....	43		....	47		....	42	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	COTSWOLD.													LEICESTER.				
Catalogue number of samples..	190. SIDE.			190. HIP.			190. BELLY.			198.				113.				
Length of fiber in crimp.....	4⅛ inches.			4¾ inches.			4 inches.			13½ inches.								
Number of crimps per inch....	——			——			——			——								
Number of section.....	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B⁵.
Actual measurement in centimillimeters.	4.875	4.75	3.75	5.0	4.0	5.0	4.875	4.125	4.5	3.375	4.0	5.125	5.0	3.0	3.0	4.0	3.5	4.25
	4.375	6.5	3.0	5.0	5.375	4.0	5.125	4.5	3.5	3.625	4.25	5.75	4.25	3.5	3.25	4.5	3.25	4.5
	4.25	4.5	4.0	4.75	5.375	5.375	4.875	5.125	3.5	3.5	4.125	4.5	4.0	4.5	4.0	4.75	5.0	3.5
	3.5	4.25	4.625	4.815	5.75	4.875	4.5	4.75	3.5	4.5	4.5	4.375	5.25	4.0	4.0	4.375	4.5	4.0
	4.25	4.75	4.0	4.5	5.0	5.0	4.5	4.5	4.0	3.875	5.75	4.5	4.125	3.0	4.0	4.375	3.5	4.25
	4.0	4.5	3.625	3.875	4.75	5.25	5.0	4.75	5.75	3.5	4.375	4.0	4.375	3.5	4.25	3.5	4.0	4.5
	4.5	3.5	3.0	5.5	5.375	3.875	4.5	4.5	3.5	4.25	4.75	4.75	4.875	3.5	3.75	3.25	3.75	4.75
	5.25	4.5	4.0	5.0	4.815	3.375	4.625	4.0	3.875	4.75	4.25	5.25	2.5	3.5	5.00	3.125	4.25	4.25
	3.875	4.0	4.5	3.5	5.0	4.25	4.625	5.375	4.375	5.0	5.0	4.75	4.75	3.5	3.5	4.0	3.75	3.5
	4.375	4.0	4.125	3.25	5.25	3.0	5.125	4.5	4.0	3.375	4.625	5.0	3.5	2.75	3.25	3.75	3.75	4.5
	4.375	4.25	3.875	5.375	3.75	4.375	4.875	4.75	4.25	3.875	3.5	3.875	4.75	3.5	3.5	4.0	4.5	4.5
	4.0	4.0	3.875	4.25	4.375	4.875	3.5	4.0	5.0	2.75	4.5	3.5	5.5	4.75	4.0	3.0	4.0	4.0
	4.375	4.5	5.25	4.875	4.875	5.25	5.0	5.875	4.125	2.75	5.375	3.5	5.5	4.0	3.75	4.0	3.25	3.5
	4.5	4.75	4.25	3.5	4.5	4.0	5.0	4.0	2.75	3.75	3.875	3.0	3.875	3.0	3.5	4.75	3.5	3.5
	4.875	5.25	3.5	4.5	5.375	4.5	5.0	4.0	4.5	2.0	3.875	4.25	4.25	3.75	3.5	3.875	5.0	4.5
	5.0	5.0	3.625	6.0	5.375	5.0	4.25	6.5	4.625	3.375	5.125	2.75	2.75	3.75	3.0	3.25	3.5	4.0
	4.875	5.0	4.875	3.0	4.0	5.0	4.0	5.375	3.75	3.5	3.875	3.5	4.75	3.25	4.25	3.0	3.25	4.0
	4.875	5.5	5.375	3.375	4.75	5.375	4.5	4.75	3.875	3.75	4.0	3.25	4.5	3.5	3.75	4.5	3.75	4.5
	4.5	3.875	3.815	2.75	6.375	5.5	4.25	4.0	3.5	4.0	4.375	4.25	3.875	4.25	2.5	3.75	3.25	4.75
	4.5	4.625	4.125	4.75	5.0	4.25	4.5	4.125	4.375	5.0	4.5	4.375	3.75	3.5	3.25	4.375	5.0	4.0
	3.25	3.5	4.5	4.75	4.75	4.25	4.125	4.75	4.375	3.875	4.25	2.875	3.875	3.25	3.75	4.375	4.5	4.5
	4.375	5.75	3.875	4.5	4.75	5.75	3.875	4.0	3.25	4.25	4.0	4.75	3.375	2.75	3.00	4.0	3.75	4.5
	3.5	4.0	4.75	5.5	6.375	5.625	5.0	2.875	4.0	4.5	5.25	3.75	4.875	2.75	3.25	4.25	3.25	4.0
	5.25	5.25	5.0	3.75	5.375	4.75	4.5	4.5	4.0	1.75	6.0	4.375	4.0	3.25	4.0	4.25	3 75	3.25
	4.0	4.5	4.625	4.25	3.875	4.625	3.75	4.0	4.5	3.5	4.875	2.5	2.625	4.5	3.25	4.375	4.5	4.0
	4.375	5.125	5.5	2.75	3.25	5.375	4.75	4.25	4.375	4.0	4.25	2.75	5.375	5.75	3.25	4.25	3.75	4.25
	4.5	5.0	4.75	5.0	4.25	3.375	5.5	5.375	4.75	4.5	4.0	3.75	5.5	3.25	3.5	4.0	4.0	4.5
	3.75	3.25	3.75	4.0	3.75	4.75	3.5	5.0	4.5	4.25	3.875	5.0	5.375	3.0	4.0	4.5	4.75	4.0
	3.25	4.125	4.5	5.25	4.875	4.125	4.5	3.875	3.5	4.75	6.25	3.5	5.0	4.25	3.25	4.5	4.5	3.75
	4.75	5.0	4.25	4.75	1.875	5.0	4.5	4.0	3.5	3.625	4.125	3.5	5.5	4.5	3.5	4.0	4.0	4.25
Averages.....	4.336	4.783	3.845	4.404	4.741	4.658	4.554	4.537	4.066	3.783	4.516	4.033	4.385	3.6416	3.5916	4.054	3.9666	4.1416

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of meters.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements	B¹	5.25	2.0669	B¹	6.0	2.3622	B¹	5.5	2.1653	B¹	4.75	1.8700	B¹	5.75	2.2637
	B²	6.5	2.5590	B²	6.375	2.5098	B²	6.5	2.5590	B²	6.25	2.4608	B²	5.0	1.9685
	B³	5.5	2.1653	B³	5.75	2.2637	B³	5.75	2.2637	B³	5.75	2.2637	B³	4.75	1.8700
	.....	.....	.....	.....	.....	.....	.....	.....	.....	B⁴	5.5	2.1653	B⁴	5.0	1.9685
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B⁵	4.75	1.8700
Highest.....	.....	6.5	2.5590	.....	6.375	2.5098	.....	6.5	2.5590	.....	6.25	2.4608	.....	5.75	2.2637
Minimum measurements	B¹	3.25	1.2795	B¹	2.75	1.0826	B¹	3.5	1.3779	B¹	1.75	0.6889	B¹	2.75	1.0826
	B²	3.25	1.2795	B²	1.875	0.7381	B²	2.875	1.1318	B²	3.875	1.5255	B²	2.50	0.9842
	B³	3.0	1.1811	B³	3.0	1.1811	B³	2.75	1.0826	B³	2.5	0.9842	B³	3.0	1.1811
	.....	.....	.....	.....	.....	.....	.....	.....	.....	B⁴	2.5	0.9842	B⁴	3.25	1.2795
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B⁵	3.25	1.2795
Lowest	.....	3.0	1.1811	.....	1.875	0.7381	.....	2.75	1.0826	.....	1.75	0.6889	.....	2.50	0.9842
Average measurements..	B¹	4.336	1.7070	B¹	4.404	1.7338	B¹	4.554	1.7929	B¹	3.783	1.4893	B¹	3.641	1.4334
	B²	4.783	1.8830	B²	4.741	1.8665	B²	4.537	1.7862	B²	4.516	1.7779	B²	3.591	1.4137
	B³	3.845	1.5137	B³	4.658	1.8338	B³	4.066	1.6007	B³	4.033	1.5877	B³	4.054	1.5960
	.....	.....	.....	.....	.....	.....	.....	.....	.....	B⁴	4.385	1.7263	B⁴	3.966	1.5614
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B⁵	4.141	1.6303
Average	.....	4.321	1.7011	.....	4.601	1.8114	.....	4.385	1.7263	.....	4.179	1.6452	.....	3.879	1.5217
Measurements above average..	.....	50		.....	53		.....	41		.....	62		.....	78	
Measurements below average..	.....	40		.....	37		.....	44		.....	58		.....	72	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	LINCOLN.																	
Catalogue number of samples	59. SHOULDER.					59. SIDE.			59. HIP.			60. SHOULDER.				60. SIDE.			
Length of fiber in crimp	3¾ inches.					3 inches.			3 inches.			3½ inches.				3½ inches.			
Number of crimps per inch	——					——			——			——				——			
Number of section	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	4.0	4.33	3.66	3.0	5.66	4.166	3.833	3.33	5.0	4.33	3.33	4.66	2.80	3.33	5.0	4.66	5.33	4.166	4.66
	4.33	4.66	4.0	4.0	4.33	3.166	5.33	3.33	5.33	5.0	4.66	4.33	3.50	3.33	4.66	4.166	5.0	5.0	4.0
	4.0	4.33	5.0	4.0	5.833	3.0	4.166	6.33	5.33	5.833	4.0	4.0	3.33	3.5	5.0	4.0	4.833	4.66	3.33
	3.33	4.66	3.0	5.0	4.66	3.33	3.33	4.5	3.33	5.66	6.0	5.66	4.0	4.33	4.0	5.83	4.33	4.66	6.33
	3.66	4.66	3.66	5.33	4.0	3.0	4.0	3.33	4.5	3.33	3.5	5.45	5.166	5.833	4.66	5.0	4.33	4.33	3.66
	5.0	4.0	4.5	3.33	5.0	4.0	3.66	3.33	3.33	5.66	4.0	4.33	4.66	4.33	5.66	3.833	5.0	4.0	3.5
	4.0	4.0	4.66	4.0	3.33	3.33	4.33	4.66	4.833	4.66	4.66	4.0	5.0	5.33	5.0	4.0	4.33	3.66	4.0
	5.33	3.0	4.0	4.0	3.0	5.33	4.83	4.166	4.33	5.0	4.833	4.0	4.66	3.0	4.833	4.66	5.33	3.66	5.0
	3.66	4.66	4.0	4.66	4.33	5.33	5.33	4.66	4.66	5.33	4.66	2.33	4.66	3.66	4.833	5.66	4.0	4.33	4.33
	5.0	2.66	3.66	5.33	3.0	4.33	3.833	3.66	6.0	5.833	4.33	5.33	2.66	5.0	4.66	4.66	4.0	4.0	4.33
	5.33	4.0	3.33	4.833	4.0	5.0	4.0	4.0	5.33	4.0	5.0	3.0	3.33	5.0	4.0	4.66	4.33	5.166	4.66
	4.0	5.0	4.66	3.33	5.33	4.0	4.0	3.0	4.66	2.66	4.66	4.0	4.0	2.66	4.66	4.0	4.33	5.0	4.0
	3.33	3.66	3.0	4.66	3.5	3.66	3.33	3.66	4.66	5.33	4.66	5.0	4.0	4.0	5.166	4.66	4.66	4.0	5.33
	5.66	3.66	5.0	3.0	4.5	5.33	4.33	4.0	4.66	5.33	4.66	5.0	4.66	4.166	4.0	4.66	5.33	4.0	4.0
	4.0	5.0	4.5	5.166	4.66	3.33	5.33	4.0	5.33	4.66	5.66	5.166	5.33	4.66	5.0	4.33	4.0	3.66	5.0
	5.66	4.0	3.33	5.0	4.66	4.33	4.0	3.33	4.66	4.66	5.0	5.45	5.833	5.0	3.833	4.0	5.0	4.33	4.66
	4.66	4.66	3.33	3.66	5.33	3.33	3.33	5.166	4.33	3.33	3.0	5.0	5.33	4.0	3.833	4.66	7.33	3.66	4.0
	3.66	3.66	4.66	4.0	4.0	4.166	4.66	5.66	5.0	4.33	4.33	2.66	4.66	5.33	3.66	4.66	4.33	3.0	4.66
	3.33	3.33	4.33	3.33	4.0	4.5	3.66	4.66	5.0	5.33	5.33	4.5	5.166	5.33	5.0	4.66	4.66	5.66	4.66
	4.0	3.33	3.0	3.33	5.166	5.0	4.66	3.33	4.66	4.0	4.66	4.66	5.33	4.33	4.0	4.66	5.0	5.33	4.33
	4.166	5.833	5.166	4.166	4.833	3.166	3.33	5.33	2.66	5.33	4.66	3.833	4.5	4.833	4.33	4.166	4.66	5.0	3.33
	5.833	3.66	5.33	4.0	5.833	3.33	4.0	4.0	3.66	5.166	3.833	4.66	5.0	5.66	5.0	4.33	4.33	4.5	4.833
	5.33	4.0	5.33	5.33	3.33	4.66	4.66	3.33	5.66	3.33	5.33	4.66	4.33	4.833	4.33	5.0	5.33	4.0	4.66
	5.33	3.833	4.5	4.33	5.833	3.33	4.0	3.66	5.33	3.166	4.0	4.66	4.5	3.33	3.33	4.0	5.66	4.33	3.66
	4.66	4.0	4.0	4.66	4.5	3.66	2.5	5.33	4.0	4.66	5.166	5.33	5.0	4.66	4.66	3.66	3.33	4.33	5.0
Averages	4.050	4.103	4.131	4.217	4.504	3.910	4.037	3.963	4.649	4.476	4.576	4.448	4.457	4.437	4.571	4.403	4.710	4.377	4.462

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	5.33	2.0984	B¹	5.33	2.0984	B¹	5.0	2.3622	B¹	5.45	2.1456	B¹	5.33	2.0984
	B²	5.833	2.2964	B²	5.33	2.0984	B²	6.33	2.4921	B²	5.833	2.2964	B²	7.33	2.8858
	B³	5.33	2.0984	B³	6.33	2.4921	B³	5.0	2.3622	B³	5.66	2.2283	B³	5.0	2.3622
	B⁴	5.33	2.0984							B⁴	5.66	2.2283	B⁴	6.33	2.4921
	B⁵	5.833	2.2964												
Highest		5.833	2.2964		6.33	2.4921		6.33	2.4921		5.833	2.2964		7.33	2.8858
Minimum measurements.	B¹	3.33	1.3110	B¹	3.0	1.1811	B¹	3.33	1.3110	B¹	2.33	0.9173	B¹	3.66	1.4409
	B²	2.66	1.0472	B²	3.33	1.3110	B²	2.66	1.0472	B²	2.66	1.0472	B²	2.33	0.9173
	B³	3.0	1.1811	B³	3.33	1.3110	B³	3.0	1.1811	B³	2.66	1.0472	B³	3.0	1.1811
	B⁴	3.0	1.1811							B⁴	3.33	1.3110	B⁴	3.33	1.3110
	B⁵	3.0	1.1811												
Lowest		2.66	1.0472		3.0	1.1811		2.66	1.0472		2.33	0.9173		2.33	0.9173
Average measurements.	B¹	4.050	1.5944	B¹	3.910	1.5393	B¹	4.649	1.8303	B¹	4.448	1.7511	B¹	4.403	1.7334
	B²	4.103	1.6453	B²	4.037	1.5893	B²	4.476	1.7622	B²	4.457	1.7547	B²	4.710	1.8543
	B³	4.131	1.6263	B³	3.963	1.5602	B³	4.576	1.8015	B³	4.437	1.7468	B³	4.377	1.7232
	B⁴	4.217	1.6602							B⁴	4.571	1.7996	B⁴	4.462	1.7568
	B⁵	4.504	1.7732												
Average		4.201	1.6539		3.970	1.5629		4.567	1.7980		4.476	1.7629		4.488	1.7669
Measurements above average			69			38			46			58			48
Measurements below average						87			29			42			52

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	LINCOLN.																			
Catalogue number of samples..	60. HIP.				60. BELLY.				61. SHOULDER.					61. SIDE.				
Length of fiber in crimp.....	3½ inches.				2½ inches.				6½ inches.					6½ inches.				
Number of crimps per inch....	——				——				——					——				
Number of section.....	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.	B⁵.
Actual measurement in centimillimeters.	5.0	4.66	3.66	4.66	3.66	4.0	4.66	3.33	4.33	4.0	4.66	4.0	3.66	4.0	3.33	2.66	3.0	3.66
	4.33	3.33	4.33	5.0	4.33	5.0	3.0	4.0	2.66	4.33	4.66	2.0	2.66	4.66	2.66	4.33	3.166	4.0
	5.33	4.33	4.0	4.66	4.0	3.33	3.33	3.33	3.33	3.66	5.166	3.0	4.0	3.33	4.33	3.33	3.33	4.33
	3.66	4.33	4.66	4.0	4.66	3.33	3.33	3.0	3.66	3.66	3.33	3.66	4.0	3.66	5.0	4.0	3.33	3.00
	4.0	4.66	4.0	3.66	5.33	4.0	3.833	2.66	4.00	5.33	4.0	3.0	4.33	3.33	3.66	3.33	3.66	4.0
	5.33	4.0	5.33	5.33	4.66	4.0	5.0	3.33	3.33	4.66	4.0	4.33	2.66	4.33	3.66	4.0	3.0	3.66
	5.0	4.0	4.0	5.66	4.66	4.5	4.33	4.0	4.33	3.66	4.33	3.66	3.0	4.33	2.66	3.33	3.33	3.33
	4.33	4.33	4.0	4.33	3.66	3.66	4.66	4.33	4.0	3.33	4.33	4.0	2.33	3.33	4.0	4.0	2.0	4.0
	5.0	4.66	4.66	3.66	3.66	4.0	4.0	3.66	4.0	3.33	4.0	4.33	4.33	2.33	5.33	4.0	3.33	2.33
	4.66	4.66	4.33	4.0	4.33	4.33	4.66	3.66	4.0	4.0	4.0	3.66	3.33	3.33	4.66	4.166	3.0	4.5
	3.33	4.0	4.33	2.66	5.66	3.33	3.66	4.66	4.5	3.66	3.0	3.66	4.0	3.66	4.0	4.33	4.0	3.166
	4.0	3.66	4.0	4.66	4.0	4.33	3.66	4.0	4.66	4.5	4.66	3.33	4.66	3.33	3.33	4.0	4.0	4.33
	4.0	5.33	4.66	4.0	3.66	3.66	4.0	3.33	4.66	2.66	4.66	4.33	3.0	4.0	2.66	3.66	5.0	3.33
	5.0	6.0	4.66	2.66	4.33	3.33	3.33	3.66	4.66	4.33	5.33	3.66	3.33	4.66	3.66	3.166	3.166	2.66
	4.0	6.0	5.0	4.66	3.33	3.33	2.0	4.66	4.66	4.0	4.66	3.66	3.33	3.33	3.66	3.833	3.66	2.66
	4.0	4.66	5.33	4.33	4.33	4.66	3.66	4.0	4.33	3.66	5.0	3.66	4.0	3.166	3.33	3.833	2.33	3.166
	3.0	3.33	4.0	4.33	3.33	3.0	3.33	4.0	3.33	4.66	4.833	4.0	2.66	3.833	2.33	3.833	3.833	4.166
	4.0	4.0	4.66	4.0	3.0	4.5	3.66	3.33	4.33	2.66	4.66	3.66	3.66	3.33	4.33	4.5	3.33	2.66
	3.33	3.0	4.33	4.33	2.0	4.66	4.0	4.0	3.66	3.66	2.66	4.0	3.33	4.166	4.66	3.66	3.66	3.33
	4.33	4.33	3.66	3.0	4.0	4.0	5.33	4.0	4.0	4.0	4.66	4.66	3.33	4.66	3.33	2.66	4.33	4.5
	4.66	3.66	4.166	4.5	4.33	3.66	4.33	4.66	4.0	3.66	4.166	4.33	3.0	3.833	3.166	3.66	3.33	4.33
	4.66	4.66	4.0	4.33	4.5	4.33	3.66	4.23	4.66	4.0	3.33	4.0	4.66	3.0	2.66	3.33	4.0	2.833
	4.66	3.33	3.66	4.66	3.33	4.0	3.33	3.33	4.33	5.0	3.33	4.0	3.33	2.833	4.0	3.166	3.33	3.166
	4.66	4.0	4.66	3.33	3.33	4.0	3.33	3.33	4.66	4.66	4.33	3.66	3.0	5.33	4.33	3.0	3.166	4.0
	5.66	4.66	3.33	4.5	4.0	3.833	4.66	3.66	4.0	4.66	4.66	3.33	3.33	3.66	3.833	2.0	4.0	4.33
Averages.....	4.397	4.303	4.296	4.279	3.963	3.950	3.869	3.766	4.083	3.989	4.256	3.743	3.476	3.736	3.702	3.591	3.451	3.577

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:												
Maximum measurements.	B¹	5.66	2.2283	B¹	5.66	2.2283	B¹	4.66	1.8346	B¹	5.33	2.0984
	B²	6.0	2.3622	B²	5.0	1.9685	B²	5.33	2.0984	B²	5.33	2.0984
	B³	5.33	2.0984	B³	5.33	2.0984	B³	5.33	2.0984	B³	4.50	1.7716
	B⁴	5.66	2.2283	B⁴	4.66	1.8346	B⁴	4.66	1.8346	B⁴	5.0	1.9685
	.....	.....	.....	.....	.....	.....	B⁵	4.66	1.8346	B⁵	4.50	1.7716
Highest.....	.....	6.0	2.3622	.....	5.66	2.2283	.....	5.33	2.0984	.....	5.33	2.0984
Minimum measurements.	B¹	3.0	1.1811	B¹	2.0	0.7874	B¹	2.66	1.0472	B¹	2.33	0.9173
	B²	3.0	1.1811	B²	3.0	1.1811	B²	2.66	1.0472	B²	2.33	0.9173
	B³	3.33	1.3110	B³	2.0	0.7874	B³	2.66	1.0472	B³	2.0	0.7874
	B⁴	2.66	1.0472	B⁴	2.66	1.0472	B⁴	2.0	0.7874	B⁴	2.0	0.7874
	.....	.....	.....	.....	.....	.....	B⁵	2.33	0.9173	B⁵	2.33	0.9173
Lowest	.....	2.66	1.0472	.....	2.0	0.7874	.....	2.0	0.7874	.....	2.0	0.7874
Average measurements..	B¹	4.397	1.7310	B¹	3.963	1.5602	B¹	4.083	1.6074	B¹	3.736	1.4708
	B²	4.303	1.6940	B²	3.950	1.5551	B²	3.989	1.5704	B²	3.702	1.4574
	B³	4.296	1.6913	B³	3.869	1.5232	B³	4.256	1.6755	B³	3.591	1.4137
	B⁴	4.279	1.6846	B⁴	3.766	1.4826	B⁴	3.743	1.4736	B⁴	3.451	1.3586
	.....	.....	.....	.....	.....	.....	B⁵	3.476	1.3685	B⁵	3.577	1.4082
Average	.....	4.318	1.6999	.....	3.887	1.5303	.....	3.909	1.5389	.....	3.611	1.4216
Measurements above average..	.....	57		.....	53		.....	72		.....	67	
Measurements below average..	.....	48		.....	47		.....	53		.....	58	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	LINCOLN.																	
Catalogue number of samples..	61. HIP.					61. BELLY.				164. SHOULDER.						164. SIDE.					
Length of fiber in crimp.....	6½ inches.					3½ inches.				6½ inches.						7 inches.					
Number of crimps per inch	——					——				——						——					
Number of section.....	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.
Actual measurement in centimillimeters.	3.33	3.66	5.0	3.33	4.66	4.0	3.0	3.66	4.0	3.375	4.375	3.75	3.75	4.5	4.5	3.375	3.5	2.285	4.25	3.375	3.25
	4.66	3.66	2.66	4.66	3.33	3.66	3.66	3.33	3.33	3.25	4.375	3.0	4.75	3.625	2.5	3.375	3.375	2.5	2.25	3.125	3.25
	4.0	4.0	3.33	4.66	4.0	4.0	3.66	4.0	4.0	3.625	3.75	3.875	3.0	3.75	3.25	2.375	2.5	4.0	4.0	3.125	3.5
	4.33	4.66	5.33	4.0	4.0	3.33	4.0	4.33	3.33	3.75	3.875	4.0	3.25	4.25	4.25	4.5	2.75	3.5	3.0	3.875	4.75
	3.33	4.33	5.0	4.0	2.66	4.0	3.33	3.33	4.33	3.375	3.75	4.375	4.375	4.625	3.25	4.0	3.125	3.875	3.875	4.625	4.5
	5.0	5.33	5.0	4.66	4.66	4.0	3.33	4.0	3.0	3.5	3.875	4.0	3.0	3.0	3.375	4.0	2.0	3.875	3.0	3.0	2.75
	4.0	2.66	4.0	4.66	3.33	3.66	3.66	3.66	2.33	3.75	3.625	4.25	3.75	3.0	4.0	4.25	3.5	3.0	2.75	3.125	3.625
	4.5	4.0	3.66	3.33	4.0	3.66	3.33	3.33	4.0	3.25	3.0	4.5	2.25	3.0	2.75	3.375	3.5	2.0	3.5	3.375	3.875
	4.0	3.66	4.0	3.33	3.0	4.33	3.66	4.0	2.66	4.375	3.125	4.5	3.75	3.875	4.25	3.875	3.625	3.5	3.25	3.625	4.0
	3.0	4.66	4.0	4.66	4.0	4.0	3.5	3.5	2.66	3.75	3.25	3.25	4.125	3.5	2.0	4.25	3.25	3.25	3.5	3.5	3.125
	4.33	3.66	3.66	4.0	3.0	4.0	3.66	4.0	3.0	4.125	3.25	3.75	2.75	3.0	2.5	3.625	2.75	3.875	3.25	4.25	3.5
	4.66	4.33	5.0	4.66	3.66	3.66	4.66	3.0	2.66	3.5	4.0	3.375	4.0	3.125	3.5	3.75	4.25	4.0	2.125	2.75	4.0
	5.66	5.33	4.66	5.0	5.0	4.0	4.33	3.33	3.66	3.625	3.625	2.75	4.375	2.375	4.0	3.5	5.0	3.625	3.625	3.875	4.25
	4.66	3.66	4.0	4.0	3.33	4.0	4.0	3.0	3.66	4.125	4.875	3.75	2.875	4.0	3.0	4.0	3.375	3.625	1.625	2.875	3.5
	4.66	3.66	4.33	4.66	4.33	4.66	3.5	4.0	3.33	4.375	3.375	3.875	4.0	4.625	3.25	3.5	3.625	4.25	3.5	3.875	2.75
	4.33	3.66	3.66	4.0	3.66	5.33	3.66	3.33	3.0	4.25	4.375	3.0	3.5	2.125	3.75	3.375	3.625	3.875	4.25	4.25	4.25
	5.33	4.33	4.33	5.33	3.0	3.66	3.833	4.5	4.0	3.375	4.25	3.5	2.875	3.875	3.875	3.5	3.875	3.375	4.625	3.375	3.0
	3.33	5.0	4.66	3.833	3.33	3.33	2.66	3.0	3.0	3.375	3.25	3.75	4.75	3.875	3.375	4.5	4.625	3.5	4.25	3.25	2.5
	4.0	4.0	3.66	5.0	2.66	3.33	3.5	3.833	3.166	3.75	3.75	3.5	4.125	4.0	4.0	4.5	2.5	3.5	3.25	3.75	4.125
	5.33	4.33	4.0	4.0	4.0	3.66	3.66	3.166	3.33	3.25	3.875	4.0	4.0	3.875	3.0	3.0	4.0	2.0	4.0	4.75	3.833
	3.33	4.33	3.33	4.0	3.66	3.5	3.5	2.66	2.166	3.625	3.75	3.75	3.25	3.875	3.25	3.5	4.375	3.75	3.875	4.0	3.375
	5.0	3.166	4.33	5.0	4.33	3.833	4.0	3.166	3.33	3.5	3.0	3.875	3.5	2.75	1.875	3.875	4.25	3.625	2.5	3.75	3.0
	3.66	4.0	4.33	4.0	4.33	3.33	3.66	3.833	3.5	4.5	3.125	3.5	3.625	5.0	3.0	3.875	4.25	4.0	3.5	2.5	4.5
	4.0	4.0	4.66	4.66	4.0	4.0	3.66	4.0	2.833	3.875	4.0	3.875	4.25	2.75	3.125	3.375	4.375	2.375	4.125	3.0	4.125
	4.83	4.66	3.833	4.0	4.33	3.33	4.0	3.833	3.0	3.625	4.0	3.25	4.25	3.875	3.875	3.375	3.5	3.875	4.0	3.25	3.125
	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.5	3.875	4.0	4.5	3.375	4.0	3.5	4.0	2.0	3.25	2.375	2.875
	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.375	4.0	2.125	4.0	4.0	3.0	3.5	5.0	2.875	3.625	4.375	2.625
	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.625	4.25	3.5	3.0	3.875	2.625	3.75	3.75	4.0	4.0	3.75	3.75
	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.875	4.375	3.125	3.5	4.0	3.125	3.625	3.5	3.875	3.625	3.125	4.375
	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.875	3.125	3.25	3.875	3.25	2.5	3.25	4.25	4.375	3.0	1.25	2.375
Averages.....	4.270	4.082	4.176	4.297	3.797	3.826	3.656	3.591	3.257	3.704	3.770	3.633	3.700	3.625	3.291	3.941	3.666	3.375	3.468	3.323	3.375

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:												
Maximum measurements.	B¹	5.66	2.2283	B¹	5.33	2.0984	B¹	4.5	1.7716	B¹	4.5	1.7716
	B²	5.33	2.0984	B²	4.66	1.8346	B²	4.875	1.9192	B²	5.0	1.9685
	B³	5.33	2.0984	B³	4.50	1.7716	B³	4.5	1.7716	B³	4.375	1.7224
	B⁴	5.33	2.0984	B⁴	4.33	1.7047	B⁴	4.75	1.8708	B⁴	4.625	1.8208
	B⁵	5.0	1.9685	.....	4.33	1.7047	B⁵	5.0	1.9685	B⁵	5.375	2.1161
	.....	.....	.....	.....	.....	.....	B⁶	4.5	1.7716	B⁶	4.75	1.8708
Highest	.....	5.66	2.2283	.....	5.33	2.0984	.....	5.0	1.9685	.....	5,375	2.1161
Minimum measurements.	B¹	2.0	1.1811	B¹	3.0	1.1811	B¹	3.25	1.2795	B¹	2.375	0.9350
	B²	2.66	1.0472	B²	2.66	1.0472	B²	3.0	1.1811	B²	2.0	0.7874
	B³	2.66	1.0472	B³	2.66	1.0472	B³	2.75	1.0826	B³	2.0	0.7874
	B⁴	3.33	1.3110	B⁴	2.166	0.8527	B⁴	2.25	0.8858	B⁴	1.625	0.6397
	B⁵	2.66	1.0472	.....	.....	.....	B⁵	2.125	0.8366	B⁵	1.25	0.4921
	.....	.....	.....	.....	.....	.....	B⁶	1.875	0.7380	B⁶	2.375	0.9350
Lowest.....	.....	2.66	1.0472	.....	2.166	0.8527	.....	1.875	0.7380	.....	1.25	0.4921
Average measurements ..	B¹	4.270	1.6810	B¹	3.826	1.5062	B¹	3.704	1.4582	B¹	3.941	1.5515
	B²	4.082	1.6070	B²	3.656	1.4393	B²	3.770	1.4842	B²	3.666	1.4433
	B³	4.176	1.6440	B³	3.591	1.4137	B³	3.633	1.4303	B³	3.375	1.3287
	B⁴	4.297	1.6917	B⁴	3.251	1.2799	B⁴	3.700	1.4566	B⁴	3.468	1.3411
	B⁵	3.797	1.4948	.....	.....	.....	B⁵	3.625	1.4271	B⁵	3.323	1.3077
	.....	.....	.....	.....	.....	.....	B⁶	3.291	1.2956	B⁶	3.375	1.3287
Average	.....	4.124	1.6236	.....	3.561	1.4198	.....	3.620	1.4251	.....	3.548	1.3968
Measurements above average..	.....	56		.....	55		.....	102		.....	84	
Measurements below average..	.....	43		.....	45		.....	78		.....	86	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	LINCOLN.																			
Catalogue number of samples..	164. HIP.					164. BELLY.				165. SHOULDER.				165. SIDE.				165. HIP.			
Length of fiber in crimp.....	5⅝ inches.					3¼ inches.				5 inches.				6 inches.				5 inches.			
Number of crimps per inch....	——					——				——				——				——			
Number of section.....	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B³.	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	2.75	4.75	3.25	2.75	3.0	2.875	3.625	3.5	2.75	2.375	2.75	4.0	3.625	3.5	2.5	4.0	3.0	3.0	2.375	4.75	2.875
	2.25	2.875	3.5	4.5	4.0	2.75	3.0	3.0	3.5	2.125	3.0	4.125	3.5	2.5	3.5	3.625	3.25	3.5	3.75	3.375	4.75
	2.375	3.0	3.875	3.25	4.5	3.0	2.5	3.75	2.25	3.125	2.75	4.25	3.5	2.75	4.0	3.5	3.875	2.5	3.0	4.0	4.5
	4.25	3.125	3.75	3.5	3.0	3.0	2.375	3.0	3.25	2.875	3.5	3.625	3.25	2.5	4.0	4.5	3.5	3.75	4.25	4.0	3.25
	3.625	3.75	3.375	4.25	3.5	2.75	3.0	3.5	2.5	2.5	3.5	3.375	3.5	3.5	3.75	2.875	2.875	2.625	3.375	3.375	2.5
	1.5	2.25	4.25	4.75	4.25	2.875	2.875	3.375	2.875	2.375	2.5	3.625	2.625	3.125	4.25	4.5	3.5	2.875	2.0	4.375	3.25
	2.875	4.5	2.875	2.5	3.125	2.5	3.125	3.625	2.75	2.375	4.25	3.5	2.625	2.875	2.125	3.125	1.875	2.375	2.0	3.125	2.5
	3.0	4.25	4.0	3.375	4.0	2.5	3.375	2.875	2.625	2.25	3.0	3.375	3.375	2.625	4.625	2.375	3.5	2.625	3.25	3.0	3.75
	3.75	3.875	4.25	3.5	4.5	3.875	3.75	3.625	2.5	3.625	4.0	2.5	4.0	3.25	2.625	3.25	3.125	2.625	4.0	4.25	2.875
	3.25	3.375	4.0	4.0	3.5	2.5	3.25	3.5	3.0	3.0	4.0	4.25	3.5	3.25	3.0	3.0	3.75	2.25	3.0	2.875	3.0
	3.875	4.75	5.0	2.875	3.25	2.25	3.0	3.375	3.625	3.5	4.25	2.625	2.375	3.375	2.5	3.0	3.125	2.875	1.875	2.5	2.375
	3.125	5.0	3.25	4.375	4.75	2.625	3.125	2.875	3.375	3.0	3.5	2.875	3.0	3.75	4.125	4.125	4.0	3.75	3.75	2.75	2.875
	3.5	2.75	3.5	3.75	3.0	3.125	3.5	3.75	2.75	3.5	2.0	3.0	3.0	3.5	3.375	3.5	3.375	2.5	2.375	4.375	2.5
	3.375	4.0	3.625	4.5	4.5	2.5	2.5	3.0	3.0	5.325	3.75	1.5	3.875	2.75	2.125	2.25	3.25	3.875	3.0	3.75	4.0
	3.375	3.25	3.125	3.0	3.875	2.0	3.25	3.125	2.75	2.5	2.375	3.25	3.25	3.625	3.875	3.25	4.125	3.0	3.5	2.375	4.5
	3.5	2.75	3.0	3.25	2.625	3.0	3.25	3.0	1.875	2.25	3.125	3.5	2.875	3.125	3.5	2.5	3.625	3.25	3.375	3.0	3.25
	3.25	3.0	3.75	4.5	3.625	3.0	3.75	3.0	2.25	2.75	3.5	3.125	2.75	2.0	2.625	2.875	2.25	3.75	3.375	4.5	4.5
	3.25	4.375	3.25	4.625	3.0	2.875	3.0	2.875	3.25	2.375	2.5	3.0	3.375	2.75	3.5	3.0	2.0	2.375	3.125	3.25	4.25
	2.375	4.75	3.75	3.25	2.125	2.5	2.625	3.0	3.5	2.75	3.75	3.25	2.875	3.5	2.75	3.75	2.125	3.25	3.875	4.0	3.5
	4.125	2.875	4.75	4.5	1.5	2.25	3.125	3.75	2.25	3.25	2.25	3.0	2.5	3.0	3.0	2.875	2.0	3.25	4.25	3.5	2.5
	3.875	3.375	2.5	4.5	3.875	2.5	3.25	3.0	3.375	2.0	3.5	3.5	3.25	3.25	3.75	3.625	2.625	4.375	2.875	4.5	3.0
	3.0	3.875	4.0	3.75	2.5	3.5	2.75	2.75	3.375	2.75	3.375	2.5	3.5	3.625	3.5	3.75	2.5	3.0	3.5	3.75	2.5
	3.75	3.625	2.75	4.875	1.75	3.0	3.0	3.125	2.75	3.5	2.0	3.0	3.0	3.5	3.0	2.75	4.25	3.125	3.75	2.0	4.0
	4.0	4.625	3.75	2.875	2.5	3.0	2.875	3.125	2.75	2.0	2.75	3.375	3.125	3.25	2.5	3.0	2.5	3.125	2.75	3.875	2.5
	3.5	4.375	4.0	2.875	2.625	2.875	3.625	3.0	1.5	2.75	2.875	3.75	3.125	2.75	3.5	2.875	3.125	4.75	3.875	2.25	3.5
	4.0	2.0	4.25	1.5	4.625	3.25	2.625	3.25	1.375	2.5	4.5	4.0	2.875	2.25	3.375	3.0	3.125	3.625	2.0	3.625	4.0
	3.625	4.0	3.625	2.75	1.625	2.5	3.0	3.0	3.25	3.375	3.25	2.0	3.0	3.125	2.5	3.75	3.375	3.5	3.375	2.75	3.375
	3.5	3.625	2.125	3.75	4.25	2.75	2.75	3.5	2.75	2.375	4.0	4.25	3.0	2.75	2.5	3.0	3.5	3.375	3.75	3.25	2.25
	3.5	3.875	3.5	3.0	4.25	2.625	3.5	3.25	3.0	3.375	3.5	3.0	3.75	4.25	4.625	2.5	2.75	4.0	4.5	2.625	4.625
	4.0	4.875	4.125	3.875	2.75	3.375	3.25	2.5	3.25	2.375	3.25	3.5	8.75	2.375	3.375	2.125	4.0	3.375	3.5	3.25	4.5
Averages.....	3.337	3.716	3.591	3.625	3.345	2.804	3.054	3.200	2.800	2.827	3.241	3.287	3.358	3.079	3.297	3.208	3.129	3.208	3.245	3.433	3.391

	No. of section.	In centimillimeters.	In thousandths of an inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	4.25	1.6732	B¹	3.875	1.5255	B¹	5.325	2.0964	B¹	4.25	1.6732	B¹	4.75	1.8700
	B²	5.0	1.9685	B²	3.75	1.4763	B²	4.50	1.7716	B²	4.625	1.8208	B²	4.50	1.7716
	B³	5.0	1.9685	B³	3.75	1.4763	B³	4.25	1.6732	B³	4.50	1.7716	B³	4.75	1.8700
	B⁴	4.875	1.9192	B⁴	3.625	1.4271	B⁴	8.75	3.4448	B⁴	4.25	1.6732	B⁴	4.75	1.8700
	B⁵	4.75	1.8700												
Highest.....		5.0	1.9685		3.875	1.5255		8.75	3.4448		4.625	1.8208		4.75	1.8700
Minimum measurements.	B¹	1.5	0.5905	B¹	2.0	0.7874	B¹	2.0	0.7874	B¹	2.0	0.7874	B¹	2.25	0.8858
	B²	2.0	0.7874	B²	2.375	0.9354	B²	2.0	0.7874	B²	2.125	0.8366	B²	1.875	0.7381
	B³	2.125	0.8366	B³	2.50	0.9842	B³	1.50	0.5905	B³	2.125	0.8366	B³	2.0	0.7874
	B⁴	1.5	0.5905	B⁴	1.375	0.5413	B⁴	2.375	0.9350	B⁴	1.875	0.7381	B⁴	2.25	0.8858
	B⁵	1.5	0.5905												
Lowest.....		1.5	0.5905		1.375	0.5413		1.50	0.5905		1.875	0.7381		1.875	0.7381
Average measurements..	B¹	3.337	1.3137	B¹	2.804	1.1039	B¹	2.827	1.1129	B¹	3.079	1.2122	B¹	3.208	1.2029
	B²	5.716	1.4629	B²	3.054	1.2023	B²	3.241	1.2759	B²	3.297	1.2980	B²	3.245	1.2775
	B³	3.591	1.4137	B³	3.200	1.2598	B³	3.287	1.2940	B³	3.208	1.2629	B³	3.433	1.3515
	B⁴	3.625	1.4271	B⁴	2.800	1.1023	B⁴	3.358	1.3220	B⁴	3.129	1.2318	B⁴	3.391	1.3350
	B⁵	3.345	1.3169												
Average.....		3.522	1.3866		2.964	1.1669		3.178	1.2511		3.178	1.2511		3.319	1.3066
Measurements above average..		74			70			52			59			59	
Measurements below average..		76			50			62			61			61	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	LINCOLN.																	
Catalogue number of samples..	165. BELLY.				166. SHOULDER.				166. SIDE.				166. HIP.			166. BELLY.		
Length of fiber in crimp.....	2¾ inches.				2⅝ inches.				2½ inches.				2½ inches.			2 inches.		
Number of crimp per inch.....	——				——				——				——			——		
Number of section	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	3.0	2.75	3.5	2.25	4.0	3.5	4.0	5.25	3.25	3.625	3.0	4.0	5.0	5.0	5.25	3.357	3.375	2.875
	2.5	2.75	3.5	3.375	3.5	3.625	3.875	5.25	3.875	4.0	3.0	3.125	4.375	4.5	4.375	2.75	2.5	3.0
	2.375	2.75	4.0	3.125	4.375	3.75	3.25	3.875	3.375	4.125	3.5	3.25	3.625	4.375	3.0	2.75	2.25	2.75
	3.5	3.5	2.875	2.125	4.25	3.25	4.375	3.875	4.0	3.375	3.75	3.25	4.5	4.375	4.75	2.875	2.875	2.75
	2.75	3.0	3.5	3.5	3.875	3.875	5.625	4.75	3.0	3.5	3.75	4.0	4.5	5.75	5.125	3.5	3.625	2.75
	3.25	3.75	2.625	3.0	3.75	3.0	3.0	3.875	3.25	3.75	4.5	3.875	3.0	3.875	4.0	2.75	3.5	4.0
	3.5	2.75	2.75	1.875	4.0	3.5	4.125	3.5	3.5	3.0	4.375	3.0	3.25	5.0	5.375	3.5	3.0	3.0
	3.125	3.125	3.25	2.875	3.625	4.375	3.875	3.125	3.125	4.625	4.375	4.5	4.0	4.75	4.5	3.0	3.875	3.0
	2.875	3.375	3.75	2.75	5.0	3.375	4.25	4.0	2.625	3.625	4.0	4.25	3.0	3.375	2.875	3.0	3.5	2.5
	2.875	4.25	2.875	2.25	4.5	4.5	3.0	3.25	3.75	4.5	3.75	4.0	3.5	3.75	3.0	3.25	3.75	3.0
	3.5	3.25	2.875	3.25	4.25	4.125	3.625	4.625	3.75	3.75	4.625	4.375	5.375	4.875	4.25	2.75	3.5	2.5
	3.5	3.75	3.875	3.5	5.0	3.25	3.5	2.875	3.75	4.0	3.125	3.5	4.25	5.375	3.25	3.5	4.0	3.875
	3.25	2.75	3.25	2.875	3.375	3.625	2.875	4.25	4.375	2.875	3.125	3.25	4.375	4.625	3.25	3.0	4.375	2.75
	3.0	2.875	2.375	3.375	4.0	5.75	3.5	4.0	4.0	2.875	3.25	4.25	4.0	4.375	2.75	2.25	3.375	3.375
	2.625	2.875	3.25	3.0	3.75	4.25	3.875	3.875	3.375	4.0	3.375	3.875	5.25	2.875	2.5	2.875	3.25	4.25
	3.375	3.0	3.75	3.25	3.25	4.0	2.5	4.0	4.0	4.875	3.25	3.5	4.0	4.0	4.375	3.125	3.75	3.75
	3.25	2.875	2.875	3.0	3.5	4.5	4.25	4.0	3.625	5.0	4.25	3.25	5.25	3.5	2.625	3.625	3.75	2.5
	3.25	3.375	2.625	3.75	3.5	3.5	5.25	4.375	3.125	4.75	3.75	3.0	5.0	4.5	3.375	2.875	3.25	3.5
	2.5	4.0	2.125	3.75	3.875	2.125	4.0	3.375	3.5	2.75	4.0	3.75	4.875	5.0	3.0	3.875	3.375	3.5
	2.625	3.0	3.0	3.125	3.375	3.375	3.125	4.125	3.5	3.875	3.875	3.875	4.75	3.5	5.0	3.25	3.25	3.25
	3.5	3.75	3.25	3.375	4.0	5.25	5.0	2.75	3.875	2.5	2.75	3.875	2.375	3.75	3.875	3.75	2.625	3.625
	2.5	2.75	3.0	2.875	5.75	4.25	3.75	3.125	3.875	4.75	3.125	3.875	4.75	3.25	5.875	3.0	3.0	3.375
	3.375	2.875	3.125	1.5	3.625	5.375	3.25	3.25	3.25	3.375	4.375	2.75	3.625	5.25	3.875	3.25	2.25	3.0
	2.625	2.625	3.0	3.5	2.875	3.125	3.5	3.75	2.5	4.5	3.875	3.5	5.25	4.5	2.5	3.5	3.875	3.5
	3.25	2.375	3.25	3.0	3.25	4.0	3.25	4.5	3.5	3.875	3.5	2.625	5.375	4.25	4.25	3.25	3.75	3.25
	3.625	4.75	2.875	2.875	3.0	3.25	3.5	5.0	4.0	4.125	3.5	3.875	3.0	5.0	4.625	3.63	2.875	2.25
	2.875	4.375	3.0	2.625	3.625	5.25	4.75	3.125	2.375	3.0	3.875	3.0	4.375	5.0	5.5	3.375	2.625	2.5
	3.0	3.375	3.125	4.5	3.5	3.375	2.875	5.0	3.0	3.625	3.5	2.5	5.25	2.875	3.5	3.5	3.25	3.25
	2.625	3.375	3.375	3.125	3.5	4.375	5.75	4.125	2.875	3.5	4.0	4.0	3.625	4.875	4.5	3.25	2.75	2.375
	3.375	3.5	3.0	2.75	3.625	3.75	4.125	4.25	3.25	4.0	4.125	3.5	5.875	5.0	6.0	4.0	3.0	3.25
Averages	3.049	3.283	3.117	2.957	3.823	3.741	3.787	3.987	3.408	3.837	3.708	3.572	4.354	4.494	4.070	3.183	3.324	3.141

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	3.625	1.4271	B¹	5.625	2.2145	B¹	4.375	1.7224	B¹	5.375	2.1161	B¹	4.0	1.5748
	B²	4.25	1.6732	B²	5.75	2.2637	B²	5.0	1.9685	B²	5.75	2.2637	B²	4.375	1.7224
	B³	4.0	1.5748	B³	5.75	2.2637	B³	4.625	1.8208	B³	5.6	2.3622	B³	4.25	1.6732
	B⁴	4.50	1.7716	B⁴	5.25	2.0669	B⁴	4.50	1.7716	.....	.....	.....	.....	.....	.....
Highest	.....	4.50	1.7716	.....	5.75	2.2637	.....	5.0	1.9685	.....	6.0	2.3622	.....	4.25	1.6732
Minimum measurements.	B¹	2.375	0.9350	B¹	2.875	1.1318	B¹	2.125	0.8366	B¹	2.375	0.9350	B¹	2.25	0.8858
	B²	2.375	0.9350	B²	2.125	0.8366	B²	2.75	1.0826	B²	2.875	1.1318	B²	2.25	0.8858
	B³	2.125	0.8366	B³	2.50	0.9842	B³	2.75	1.0826	B³	2.50	0.9842	B³	2.25	0.8858
	B⁴	1.50	0.5905	B⁴	2.75	1.0826	B⁴	2.50	0.9842	.....	.....	.....	.....	.....	.....
Lowest	.....	1.50	0.5905	.....	2.125	0.8366	.....	2.125	0.8366	.....	2.375	0.9351	.....	2.25	0.8858
Average measurements..	B¹	3.049	1.2001	B¹	3.823	1.5050	B¹	3.408	1.3417	B¹	4.354	1.7141	B¹	3.183	1.2531
	B²	3.283	1.2925	B²	3.741	1.4728	B²	3.837	1.5760	B²	4.494	1.7356	B²	3.324	1.2986
	B³	3.117	1.2271	B³	3.787	1.4909	B³	3.708	1.4598	B³	4.070	1.6023	B³	3.141	1.2366
	B⁴	2.957	1.1641	B⁴	3.987	1.5696	B⁴	3.572	1.3826	.....	.....	.....	.....	.....	.....
Average	.....	3.101	1.2208	.....	3.837	1.5106	.....	3.616	1.4236	.....	4.276	1.6834	.....	3.216	1.2661
Measurements above average..	.....	59		.....	58		.....	59		.....	60		.....	51	
Measurements below average..	.....	61		.....	62		.....	61		.....	40		.....	39	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	LINCOLN.																	
Catalogue number of samples..	167. SHOULDER.			167. SIDE.			167. HIP.			167. BELLY.			168. SHOULDER.			168. SIDE.		
Length of fiber in crimp.....	3⅛ inches.			2⅝ inches.			2⅝ inches.			1⅝ inches.			2⅞ inches.			3¼ inches.		
Number of crimps per inch	——			——			——			——			——			——		
Number of section.....	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	4.375	3.75	2.75	3.5	4.125	4.125	3.875	3.75	4.375	3.375	3.75	3.875	3.5	3.625	3.0	4.375	3.0	4.375
	4.0	3.0	3.25	4.0	4.25	4.125	3.25	4.375	4.0	3.125	3.5	3.125	3.5	3.625	3.625	3.0	3.25	4.25
	3.25	3.5	4.125	3.5	3.25	3.75	3.625	3.875	4.0	3.625	4.0	3.0	4.0	4.0	3.75	3.75	2.625	4.0
	3.0	3.75	5.0	4.125	4.125	3.375	4.5	2.25	5.0	3.0	3.125	3.25	3.125	2.875	4.25	3.25	4.25	3.25
	3.875	2.75	3.75	3.875	3.0	3.5	3.875	4.0	5.125	3.375	2.25	3.875	4.0	4.25	3.625	3.5	3.5	3.0
	4.0	4.5	4.0	3.125	3.5	3.5	3.5	4.25	4.25	3.375	3.25	3.875	3.875	3.625	3.875	3.5	2.875	4.0
	3.875	2.5	4.0	4.125	4.25	3.375	3.5	4.25	4.875	3.625	4.125	3.375	4.125	3.375	3.75	4.375	4.0	4.5
	4.25	3.5	4.0	3.25	3.25	3.5	3.375	4.25	3.5	3.375	4.125	3.875	4.0	3.625	3.875	3.75	3.125	4.0
	3.5	3.25	4.0	4.125	3.875	3.875	3.25	3.5	4.5	3.625	3.125	4.375	3.875	2.75	3.375	2.625	3.625	2.875
	4.125	3.125	4.5	3.875	4.875	3.875	3.375	4.5	4.625	3.25	3.125	3.0	3.75	3.375	3.5	3.375	3.75	4.375
	3.5	3.75	4.0	3.875	4.0	3.625	3.625	5.25	5.0	3.625	4.0	3.75	3.375	2.875	3.125	3.375	3.625	4.875
	3.75	3.125	3.25	3.375	3.625	4.5	3.375	3.0	4.25	2.875	4.0	3.25	3.125	2.5	3.875	3.625	3.5	3.125
	4.375	3.375	3.0	3.375	3.875	3.5	3.625	4.375	2.125	3.125	4.375	3.5	3.5	2.875	3.5	2.875	4.625	3.5
	3.25	2.625	3.875	4.375	4.125	4.25	3.375	3.625	3.0	3.375	3.5	3.75	3.5	2.75	3.125	3.0	3.25	4.0
	4.0	3.0	4.0	3.375	3.625	3.75	3.875	3.375	3.375	3.75	3.25	3.5	3.375	3.125	3.125	3.25	3.0	3.375
	3.75	4.0	3.875	3.75	3.75	3.875	4.5	4.5	5.25	3.25	4.0	3.375	3.625	4.0	4.5	2.75	2.75	3.625
	3.25	4.0	3.75	3.125	4.25	3.25	3.75	4.5	4.625	4.25	3.25	3.375	3.875	3.125	3.875	3.5	3.875	4.0
	3.125	3.75	3.5	3.5	3.875	3.875	3.5	4.0	3.125	4.375	2.75	3.875	3.375	2.875	2.75	3.5	3.0	3.25
	3.75	3.5	4.0	3.125	3.375	3.75	3.5	3.125	4.0	4.0	3.75	3.625	3.0	3.75	3.5	3.875	3.75	4.0
	3.375	3.0	3.5	3.625	4.125	3.25	4.25	3.875	2.25	3.5	4.0	3.375	2.875	2.875	3.0	3.375	3.375	3.5
	3.125	2.625	3.75	2.625	2.375	3.25	4.25	4.375	3.375	4.5	4.5	3.5	3.5	3.25	3.75	3.0	4.25	4.375
	3.375	3.25	3.5	2.375	3.75	4.0	4.125	5.25	3.875	3.5	3.0	3.875	3.5	3.375	4.125	3.375	3.0	4.5
	3.125	3.125	3.875	3.25	3.25	4.25	4.25	3.875	4.375	3.375	3.5	3.625	3.5	1.625	2.875	3.5	3.0	3.5
	3.5	2.5	3.75	4.0	3.0	4.5	3.875	4.0	4.375	3.75	3.625	3.875	2.5	3.625	3.0	2.375	3.75	3.75
	3.625	2.625	2.875	4.0	3.25	3.5	4.375	3.875	4.375	3.5	3.75	2.5	3.25	3.875	3.5	3.5	2.75	4.25
	4.0	3.0	3.625	3.0	2.75	4.0	3.25	4.125	3.75	2.75	4.0	3.0	3.75	3.75	3.75	3.125	4.0	4.375
	2.5	2.375	4.0	4.0	4.0	2.5	4.25	2.875	2.75	3.0	2.75	3.5	3.5	3.75	3.125	3.25	4.0	2.5
	3.5	3.0	3.5	4.25	2.25	4.125	4.0	3.625	4.0	3.875	2.75	3.25	2.75	3.375	3.375	3.125	3.875	3.375
	3.5	4.0	3.25	3.5	3.5	3.375	3.25	2.875	4.125	3.625	3.25	3.125	3.0	1.75	3.125	3.5	3.5	4.75
	4.25	3.5	3.375	4.25	2.875	3.75	3.5	4.25	3.875	3.5	4.25	3.125	3.0	3.75	3.75	3.0	3.0	3.625
Averages	3.640	3.220	3.724	3.607	3.604	3.729	3.754	3.965	4.004	3.508	3.554	3.479	3.454	3.266	3.512	3.345	3.462	3.829

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹.	4.375	1.7224	B¹.	4.375	1.7224	B¹.	4.5	1.7716	B¹.	4.5	1.7716	B¹.	4.125	1.6240	B¹.	4.375	1.7224
	B².	4.50	1.7716	B².	4.875	1.9192	B².	5.25	2.0669	B².	4.5	1.7716	B².	4.25	1.6732	B².	4.625	1.8208
	B³.	5.0	1.9685	B³.	4.5	1.7716	B³.	5.25	2.0669	B³.	4.375	1.7224	B³.	4.5	1.7716	B³.	4.875	1.9192
Highest.....	.....	5.0	1.9685	.....	4.875	1.9192	.....	5.25	2.0669	.....	4.5	1.7716	.....	4.5	1.7716	.....	4.875	1.9192
Minimum measurements.	B¹.	2.50	0.9842	B¹.	2.375	0.9350	B¹.	3.25	1.2795	B¹.	2.75	1.0826	B¹.	2.5	0.9842	B¹.	2.375	0.9350
	B².	2.50	0.9842	B².	2.375	0.9350	B².	2.25	0.8858	B².	2.75	1.0826	B².	1.625	0.6397	B².	2.625	1.0334
	B³.	2.75	1.0826	B³.	3.25	1.2795	B³.	2.125	0.8366	B³.	2.5	0.9842	B³.	2.75	1.0826	B³.	2.5	0.9842
Lowest	.....	2.50	0.9842	.....	2.375	0.9350	.....	2.125	0.8366	.....	2.5	0.9842	.....	1.625	0.6397	.....	2.375	0.9350
Average measurements..	B¹.	3.640	1.4330	B¹.	3.607	1.4200	B¹.	3.754	1.4779	B¹.	3.508	1.3810	B¹.	3.454	1.3598	B¹.	3.345	1.3169
	B².	3.220	1.2677	B².	3.604	1.4188	B².	3.965	1.5610	B².	3.554	1.3992	B².	3.266	1.2858	B².	3.462	1.3629
	B³.	3.724	1.4661	B³.	3.729	1.4681	B³.	4.004	1.5763	B³.	3.479	1.3696	B³.	3.512	1.3826	B³.	3.829	1.5074
Average	.....	3.528	1.3889	.....	3.646	1.4354	.....	3.907	1.5381	.....	3.513	1.8830	.....	3.410	1.3425	.....	3.545	1.3956
Measurements above average..	.....	44		.....	47		.....	44		.....	39		.....	49		.....	39	
Measurements below average..	.....	46		.....	43		.....	40		.....	51		.....	41		.....	51	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	LINCOLN.																	
Catalogue number of samples	168. HIP.			168. BELLY.			169. SHOULDER.			169. SIDE.			169. HIP.			169. BELLY.		
Length of fiber in crimp	2½ inches.			1½ inches.			2½ inches.			2½ inches.			2½ inches.			1½ inches.		
Number of crimps per inch	——			——			——			——			——			——		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	3.75	3.0	3.625	3.5	3.5	2.25	3.75	4.25	3.5	4.0	3.375	4.125	2.75	4.375	3.875	4.0	4.5	5.25
	4.0	3.0	3.0	3.5	3.375	4.0	3.625	3.0	4.125	4.125	4.375	4.5	4.375	4.25	3.125	4.25	3.5	3.75
	4.125	4.25	4.0	2.875	2.875	3.375	3.625	3.5	3.875	3.875	4.125	4.625	3.5	4.125	3.75	3.5	3.625	2.5
	4.125	2.75	3.625	3.375	3.5	3.125	3.5	4.0	3.625	4.375	3.125	4.0	3.0	3.875	4.625	2.875	3.25	3.75
	3.5	3.0	3.5	3.625	3.125	3.625	2.5	3.0	3.0	3.875	3.625	4.25	4.25	4.5	5.0	3.375	4.5	4.375
	4.0	4.0	4.0	3.75	3.5	2.875	2.875	3.875	4.5	3.875	4.375	2.5	5.0	3.5	4.5	3.375	4.375	3.25
	4.0	3.625	4.125	2.625	3.875	3.375	3.375	3.875	4.25	4.375	3.375	4.5	3.75	2.75	4.625	3.875	3.5	4.125
	2.75	3.0	4.375	3.125	3.0	4.0	3.0	4.25	3.625	3.125	3.25	4.375	4.25	3.625	3.25	3.75	4.25	3.5
	4.25	3.375	4.75	3.125	3.0	4.0	2.875	4.0	4.375	4.0	3.5	4.0	4.0	2.5	4.0	2.875	2.875	4.75
	3.75	3.125	4.375	2.875	2.5	3.875	3.75	4.375	4.375	3.75	3.875	4.125	4.25	4.375	5.125	4.0	3.0	3.0
	4.125	3.75	4.125	3.75	3.375	3.5	3.75	3.25	4.375	3.75	4.0	4.25	4.5	4.375	5.0	3.375	5.0	3.625
	2.875	3.625	4.5	4.0	4.25	3.0	3.75	3.875	4.25	4.125	3.875	2.5	4.5	4.0	4.5	4.125	3.625	3.5
	3.375	2.875	4.0	3.375	3.625	3.625	4.125	4.0	4.5	3.375	4.25	4.0	3.25	5.375	5.0	3.5	4.25	4.0
	3.75	3.0	2.75	3.875	3.5	3.25	4.125	4.625	3.25	3.75	4.5	3.75	5.0	4.125	3.875	2.5	3.625	4.5
	3.375	3.875	3.5	3.375	3.0	3.625	2.0	4.5	1.5	2.375	2.875	3.5	4.0	3.5	3.875	3.5	4.125	3.0
	3.25	3.5	3.625	3.0	3.0	3.75	3.875	3.875	4.25	4.375	2.625	4.0	3.5	3.125	4.375	3.375	3.875	3.875
	4.25	3.625	3.25	3.25	4.0	3.625	4.375	4.0	4.625	3.625	4.0	4.125	4.75	4.875	4.25	2.875	3.5	4.75
	4.0	3.625	4.125	3.75	3.375	3.5	2.875	3.875	3.875	4.0	2.875	4.0	3.125	2.875	3.875	3.125	3.875	4.125
	3.5	3.75	4.125	4.0	3.0	3.75	3.625	3.75	4.25	3.875	4.125	4.0	4.5	4.5	2.125	3.75	3.625	3.75
	2.875	2.625	3.25	3.75	4.25	3.375	3.125	2.625	4.25	4.375	3.75	3.0	4.0	3.0	3.5	4.75	3.75	4.0
	3.75	3.875	2.5	3.875	3.75	3.375	4.25	3.375	3.75	3.625	3.375	4.125	3.5	4.875	3.75	3.125	3.875	4.125
	4.25	4.0	4.5	3.25	3.375	2.125	3.875	3.5	3.625	4.5	4.375	3.5	3.5	3.0	4.0	2.75	3.5	3.25
	4.0	3.5	4.75	3.125	2.375	3.375	4.5	3.875	4.0	3.5	3.75	3.0	3.25	3.75	3.0	3.0	3.625	3.75
	3.125	3.125	3.25	3.625	3.75	3.25	4.25	4.25	4.875	4.375	4.125	3.875	2.875	3.25	3.75	4.0	3.25	4.5
	3.25	3.5	3.375	3.0	3.125	3.625	4.375	4.0	3.0	4.0	4.125	2.875	4.125	4.25	3.375	3.75	3.875	3.125
	3.5	3.0	3.875	3.625	4.0	3.25	4.0	2.75	5.0	2.75	4.5	4.5	4.25	3.125	3.5	4.0	3.375	4.375
	3.625	3.25	3.875	3.5	3.625	3.25	4.25	4.5	3.625	4.25	4.625	5.0	3.875	4.0	4.5	3.875	4.125	2.5
	4.0	4.5	3.875	3.5	3.25	3.25	4.0	4.0	4.25	4.125	4.75	3.875	3.375	4.5	4.0	2.375	4.125	4.0
	3.5	3.875	4.5	3.625	2.875	2.0	3.875	4.125	2.625	4.25	3.875	3.75	2.875	2.5	4.75	3.0	4.25	2.5
	3.875	3.5	3.25	3.375	3.125	3.625	4.125	4.0	4.375	3.5	3.625	4.125	4.875	3.875	5.0	3.75	4.25	3.875
Averages	3.650	3.454	3.812	3.366	3.362	3.363	3.700	3.894	3.880	3.829	3.841	3.891	3.891	3.900	4.062	3.479	3.829	3.779

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements	B¹	4.25	1.6732	B¹	4.0	1.5748	B¹	4.5	1.7716	B¹	4.5	1.7716	B¹	5.0	1.9685	B¹	4.75	1.8700
	B²	4.5	1.7716	B²	4.25	1.6732	B²	5.0	1.9685	B²	4.75	1.8700	B²	5.375	2.1161	B²	5.0	1.9685
	B³	4.75	1.8700	B³	4.0	1.5748	B³	5.0	1.9685	B³	5.0	1.9685	B³	5.125	2.0177	B³	5.25	2.0669
Highest	.....	4.75	1.8700	.....	4.25	1.6732	.....	5.0	1.9685	.....	5.0	1.9685	.....	5.375	2.1161	.....	5.25	2.0669
Minimum measurements	B¹	2.75	1.0826	B¹	2.625	1.0334	B¹	2.5	0.9842	B¹	2.375	0.9350	B¹	2.75	1.0826	B¹	2.5	0.9842
	B²	2.625	1.0334	B²	2.375	0.9350	B²	2.625	1.0334	B²	2.625	1.0334	B²	2.0	0.7874	B²	2.875	1.1318
	B³	2.5	0.9842	B³	2.0	0.7874	B³	1.5	0.5905	B³	2.5	0.9842	B³	2.125	0.8366	B³	2.5	0.9842
Lowest	.....	2.5	0.9842	.....	2.0	0.7874	.....	1.5	0.5905	.....	2.375	0.9350	.....	2.0	0.7874	.....	2.5	0.9842
Average measurements	B¹	3.650	1.4370	B¹	3.366	1.3228	B¹	3.700	1.4566	B¹	3.829	1.5074	B¹	3.891	1.5318	B¹	3.479	1.3696
	B²	3.454	1.3598	B²	3.362	1.3236	B²	3.894	1.5330	B²	3.841	1.5122	B²	3.800	1.4960	B²	3.829	1.5074
	B³	3.812	1.5007	B³	3.363	1.3240	B³	3.880	1.5275	B³	3.891	1.5318	B³	4.062	1.5992	B³	3.779	1.4877
Average	.....	3.638	1.4322	.....	3.530	1.3897	.....	3.824	1.5055	.....	3.853	1.5169	.....	3.917	1.5421	.....	3.695	1.4547
Measurements above average	.....	43		.....	33		.....	55		.....	57		.....	46		.....	48	
Measurements below average	.....	47		.....	57		.....	35		.....	33		.....	44		.....	42	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	LINCOLN.				SOUTHDOWN.											
Catalogue number of samples	191.				25				62. SHOULDER.		62. SIDE.		62. HIP.		62. BELLY.	
Length of fiber in crimp	8½ inches.				3⅜ inches.				1⅜ inches.		1½ inches.		1 inch.		——	
Number of crimps per inch	——				12.				12.		12.		——		——	
Number of section	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B¹.	B².	B¹.	B³.	B¹.	B³.
Actual measurement in centimillimeters.	1.875	2.75	3.0	3.0	2.375	2.625	2.5	3.125	3.66	4.0	2.66	2.66	2.33	3.66	3.33	3.66
	3.5	3.0	3.25	2.25	2.5	2.375	3.375	3.25	3.33	3.33	4.33	2.66	3.33	3.0	3.66	2.66
	2.75	3.375	3.5	4.25	2.625	2.875	2.875	3.0	4.0	4.0	3.66	2.66	2.66	4.0	3.0	3.33
	3.75	2.75	3.0	2.625	2.5	2.5	2.625	3.125	4.66	3.66	3.33	3.0	2.33	2.66	3.0	2.66
	2.125	2.75	3.75	3.5	3.0	3.5	3.375	3.0	3.33	3.33	4.33	3.0	2.66	4.66	2.66	3.33
	3.375	3.0	2.0	2.0	2.75	2.875	2.875	2.875	3.66	3.0	2.833	3.33	3.0	3.66	2.66	2.66
	3.0	3.5	3.5	2.75	2.25	2.75	3.0	2.875	4.0	2.66	3.33	2.33	3.0	3.0	3.0	3.33
	3.375	1.875	3.5	4.25	2.0	2.25	2.25	3.0	2.0	3.0	3.33	3.33	3.0	3.0	4.0	3.33
	2.875	2.875	1.875	3.0	2.25	2.625	2.375	3.125	2.66	2.833	3.33	2.0	3.0	3.0	3.33	3.33
	2.375	3.0	2.0	2.5	3.375	2.5	2.75	3.5	3.0	4.33	2.66	4.0	2.66	3.66	2.66	3.33
	3.125	3.375	2.25	3.875	3.25	2.875	2.5	2.875	2.0	3.0	3.66	3.32	3.0	3.0	3.0	2.66
	2.25	4.0	2.75	2.375	2.25	2.5	2.875	3.0	3.33	3.0	2.66	2.66	2.66	3.33	2.66	3.33
	2.0	2.875	2.75	3.125	2.025	2.75	2.875	2.5	2.66	3.5	3.66	3.33	3.33	3.5	2.66	2.66
	2.5	3.0	3.5	3.0	2.5	2.875	2.625	2.75	2.66	2.0	3.66	4.66	3.33	3.33	3.33	2.0
	2.75	2.125	3.25	3.875	2.875	3.0	2.5	2.5	2.66	2.0	3.33	2.66	2.66	3.0	3.0	2.66
	3.5	2.5	4.0	2.75	3.25	2.75	2.0	3.625	2.33	3.33	3.66	3.66	3.33	3.0	3.33	3.0
	2.5	3.125	3.125	1.25	2.5	2.75	2.5	3.375	2.66	3.33	3.66	3.0	4.0	3.66	4.0	3.0
	2.25	2.5	3.75	4.0	2.375	2.5	2.875	2.875	3.0	3.33	3.66	3.166	2.66	3.33	2.66	3.33
	2.25	2.625	3.25	4.375	2.375	2.625	2.0	3.125	2.33	3.33	3.33	3.33	3.33	2.66	2.66	3.33
	2.25	3.75	3.5	2.5	2.375	3.0	2.75	2.375	3.33	3.0	4.0	3.33	2.66	2.66	2.66	3.33
	2.375	3.25	2.875	2.75	2.875	2.75	2.375	3.0	3.33	4.0	3.0	3.33	3.33	4.0	2.66	4.0
	3.875	2.375	3.0	2.375	2.75	2.25	2.75	2.625	2.33	2.66	3.33	3.33	3.0	4.33	3.0	4.33
	3.375	3.0	3.875	3.0	2.25	2.75	2.75	2.5	2.66	3.33	3.0	3.0	3.0	3.33	3.33	2.66
	2.0	2.0	3.375	2.625	2.375	2.5	2.375	2.75	2.66	3.66	3.66	3.33	2.66	3.33	2.66	3.33
	2.0	2.75	2.875	4.375	2.5	2.875	3.125	3.5	3.33	3.33	3.33	3.33	3.33	3.33	2.0	3.0
	2.375	2.375	3.0	1.75	2.5	2.875	2.5	3.0	2.33	3.0	3.0	3.33	3.0	4.0	3.0	2.66
	3.875	3.0	3.125	3.75	2.5	2.5	3.0	3.0	3.0	2.66	3.33	3.33	2.66	4.0	2.33	2.0
	4.25	2.875	2.25	3.25	2.75	2.625	2.25	2.875	2.66	2.66	3.0	3.33	3.33	3.33	3.0	4.0
	3.25	2.5	3.375	2.375	2.0	2.625	3.0	2.75	2.66	3.0	3.33	3.0	3.66	3.0	3.0	3.33
	2.375	3.375	3.875	2.5	2.25	2.5	2.0	2.875	2.66	2.0	3.66	3.33	3.33	2.66	2.33	2.66
Averages	2.804	2.875	3.054	3.000	2.558	2.691	2.654	2.958	2.962	3.164	3.390	3.158	3.007	3.366	2.952	3.096

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	4.25	1.6732	B¹	3.375	1.3287	B¹	4.66	1.8346	B¹	4.33	1.7047	B¹	4.00	1.5748	B¹	4.00	1.5748
	B²	4.00	1.5748	B²	3.000	1.1811	B²	4.33	1.7047	B²	4.66	1.8346	B²	4.66	1.8346	B²	4.33	1.7047
	B³	4.00	1.5748	B³	3.375	1.3287	....	.....	.....	....	.....	.....	....	.....	.....	....	.....	.....
	B⁴	4.25	1.6732	B⁴	3.625	1.4271	....	.....	.....	....	.....	.....	....	.....	.....	....	.....	.....
Highest	.....	4.25	1.6732	.....	3.625	1.4271	....	4.66	1.8346	....	4.66	1.8346	....	4.66	1.8346	....	4.33	1.7047
Minimum measurements.	B¹	1.875	0.3781	B¹	2.0	0.7874	B¹	2.00	0.7874	B¹	2.66	1.0472	B¹	2.33	0.9173	B¹	2.33	0.9173
	B²	1.875	0.3781	B²	2.25	0.8858	B²	2.00	0.7874	B²	2.00	0.7874	B²	2.66	1.0472	B²	2.00	0.7874
	B³	1.875	0.3781	B³	2.0	0.7874	....	.....	.....	....	.....	.....	....	.....	.....	....	.....	.....
	B⁴	1.250	0.4921	B⁴	2.375	0.9350	....	.....	.....	....	.....	.....	....	.....	.....	....	.....	.....
Lowest	.....	1.250	0.4921	.....	2.0	0.7874	....	2.00	0.7874	....	2.00	0.7874	....	2.33	0.9173	....	2.00	0.7874
Average measurements.	B¹	2.804	1.1039	B¹	2.558	1.0070	B¹	2.962	1.1661	B¹	3.390	1.3346	B¹	3.007	1.1838	B¹	2.952	1.1622
	B²	2.875	1.1318	B²	2.691	1.0594	B²	3.164	1.2456	B²	3.158	1.2433	B²	3.366	1.3251	B²	3.096	1.2188
	B³	3.054	1.2023	B³	2.654	1.0448	....	.....	.....	....	.....	.....	....	.....	.....	....	.....	.....
	B⁴	3.000	1.1811	B⁴	2.958	1,1645	....	.....	.....	....	.....	.....	....	.....	.....	....	.....	.....
Average	.....	2.933	1.1547	.....	2.715	1.0688	....	3.063	1.2059	....	3.274	1.2889	....	3.186	1.2543	....	3.024	1.1905
Measurements above average	.....	62		.....	64		....	26		....	16		....	29		....	24	
Measurements below average	.....	58		.....	56		....	34		....	21		....	31		....	36	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	SOUTHDOWN.															
Catalogue number of samples	62. SHOULDER.		63. SIDE.		63. HIP.			63. BELLY.		91. SHOULDER.			91. SIDE.			
Length of fiber in crimp	1½ inches.		——		——			¾ inch.		1½ inches.			1 7/8 inches.			
Number of crimps per inch	14.		14.		——			——		12.			——			
Number of section	B^1.	B^2.	B^1.	B^2.	B^1.	H^2.	B^3.	B^1.		B^1.	B^2.	B^3.	H^4.	B^2.	B^3.
Actual measurement in centimillimeters.	3.0	3.0	2.0	2.33	3.6	3.0	4.0		2.66	2.75	3.5	3.0	3.66	3.0	2.33
	2.66	2.33	3.33	2.33	3.33	4.33	3.33		2.33	2.75	3.5	3.5	2.0	3.0	2.66
	3.0	3.0	2.0	4.66	3.66	4.0	2.66		2.66	3.25	2.75	3.25	3.66	3.0	2.33
	3.33	2.66	3.33	3.0	2.66	3.0	4.0		2.66	2.75	3.25	3.5	3.33	4.0	3.66
	2.66	3.0	3.33	2.66	3.66	3.33	3.33		3.0	3.0	2.75	3.0	3.0	2.66	3.0
	3.0	4.0	4.0	3.0	3.33	3.66	3.66		3.0	3.5	4.0	3.0	3.33	3.0	2.33
	2.66	2.66	2.66	3.33	2.66	4.33	3.0		2.66	3.5	2.5	3.5	3.33	3.0	3.33
	2.66	2.66	3.0	2.0	3.0	4.66	3.33		3.0	3.5	2.75	3.25	3.0	3.66	3.33
	3.0	3.33	3.0	3.33	3.33	2.66	3.0		2.66	3.25	2.5	2.5	3.33	3.33	3.0
	3.66	2.66	3.66	1.33	3.33	3.60	3.0		3.33	3.5	2.25	3.5	3.0	3.0	3.33
	3.33	2.66	3.0	3.0	2.66	3.0	4.0		2.66	3.5	1.75	3.0	3.0	4.66	4.0
	2.66	2.33	3.833	2.66	4.0	3.33	3.33		2.66	3.5	3.0	2.75	2.66	3.33	3.66
	3.33	2.66	3.0	2.66	2.66	3.33	3.33		3.66	3.75	4.0	3.5	3.0	3.66	3.33
	2.66	2.66	3.33	3.0	2.33	3.33	2.66		2.66	3.25	2.75	3.75	3.33	2.66	3.0
	2.66	2.0	2.66	4.0	2.66	3.0	2.66		3.33	3.75	3.5	2.75	3.0	3.0	2.0
	2.66	2.66	2.66	3.33	2.66	2.66	3.66		3.66	3.25	2.75	2.75	3.0	3.66	2.66
	3.33	2.66	2.66	4.33	2.66	2.66	3.33		2.66	3.25	3.0	2.75	3.33	3.0	2.66
	2.66	3.33	3.33	2.66	2.66	3.0	2.66		3.0	3.75	2.75	2.75	4.0	4.0	3.66
	4.0	2.33	3.33	2.66	5.0	2.66	4.0		2.66	3.75	3.0	3.25	4.33	3.33	3.33
	3.66	3.0	2.66	2.66	4.0	3.33	2.33		4.0	3.75	2.25	3.5	3.33	2.66	2.66
	3.0	2.0	2.66	4.0	2.66	3.33	5.0		2.0	3.5	3.25	3.25	3.0	3.66	2.33
	2.66	2.0	2.5	2.33	3.33	3.0	2.66		3.0	3.5	3.25	4.25	4.0	4.0	3.66
	2.66	2.66	4.0	4.0	2.66	3.0	1.66		3.0	3.0	2.5	3.25	3.66	3.33	4.33
	3.33	2.66	3.0	2.33	3.0	3.33	2.66		3.33	3.5	3.0	3.25	3.0	4.0	3.0
	4.0	3.66	3.0	2.33	2.66	2.66	2.66		2.66	3.5	2.75	3.0	4.66	3.33	2.66
	3.0	2.66	3.33	2.33	3.83	2.66	3.33		2.66	2.5	3.33	2.833	3.33	2.66	3.0
	4.0	2.66	3.0	2.33	3.83	3.33	2.66		3.33	2.5	2.66	3.0	3.0	3.0	3.33
	2.5	3.66	3.0	3.33	5.33	2.66	2.66		3.33	3.16	3.16	4.0	3.0	3.0	3.0
	3.0	3.33	3.33	3.66	4.0 3	3.33	3.33		2.66	3.836	2.666	2.833	3.66	3.66	2.33
Averages	2.66	3.833	3.33	3.33	4.66	2.66	4.33		3.5	2.5 3	2.66	3.833	5.0	3.0	2.33
	3.035	2.857	3.094	2.963	3.270	3.229	3.207		2.912	3.291	3.024	3.204	3.266	3.110	3.010

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B^1	4.00	1.5748	B^1	4.66	1.5748	B^1	5.333	2.0602	B^1	4.0	1.5748	B^1	3.833	1.5000	H^2	4.66	1.8346
	B^2	4.00	1.5748	B^2	4.66	1.8340	B^2	4.66	1.8346	.....	.....	.....	B^2	4.00	1.5748	B^2	4.66	1.8346
	.....	.....	.....	.....	.....	.....	B^3	4.33	1.7047	.....	.....	.....	B^3	4.250	1.6732	H^4	4.33	1.7047
Highest	.....	4.00	1.5748	.....	4.66	1.8340	.....	5.333	2.0602	.....	4.0	1.5748	.....	4.250	1.6732	.....	4.66	1.8346
Minimum measurements.	B^1	2.33	0.9173	B^1	2.0	0.7874	H^2	2.66	1.0472	B^1	2.00	0.7874	B^1	2.5	0.9842	H^2	2.0	0.7874
	B^2	2.00	0.7874	B^2	1.33	0.5236	B^2	2.66	1.0472	.....	.....	.....	B^2	1.75	0.6889	H^4	2.66	1.0472
	.....	.....	.....	.....	.....	.....	B^3	1.66	0.6535	.....	.....	.....	B^3	2.5	0.9842	B^3	2.0	0.7874
Lowest	.....	2.00	0.7874	.....	1.33	0.5236	.....	1.66	0.6535	.....	2.00	0.7874	.....	1.75	0.6889	.....	2.0	0.7874
Average measurements.	B^1	3.035	1.1948	B^1	3.064	1.2062	H^2	3.270	1.2873	B^1	2.912	1.1464	B^1	3.291	1.2956	B^1	3.266	1.2858
	B^2	2.857	1.1248	B^2	2.963	1.1665	B^2	3.229	1.2712	.....	.....	.....	B^2	3.024	1.1906	B^2	3.110	1.2244
	.....	.....	.....	.....	.....	.....	B^3	3.207	1.2625	.....	.....	.....	B^3	3.204	1.2614	B^3	3.010	1.1850
Average	.....	2.946	1.1598	.....	3.013	1.1862	.....	3.235	1.2736	.....	2.912	1.1464	.....	3.193	1.2570	.....	3.128	1.2314
Measurements above average	.....		29	.....		24	.....		46	.....		11	.....		49	.....		11
Measurements below average	.....		111	.....		36	.....		44	.....		16	.....		41	.....		47

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	SOUTHDOWN.																	
Catalogue number of samples	91. HIP.			91. BELLY.			92. SHOULDER.			92. SIDE.			92. HIP.			92. BELLY.		
Length of fiber in crimp	1 5/16 inches.			⅞ inch.			1⅜ inches.			1 inch.			1⅜ inches.			⅞ inch.		
Number of crimps per inch	12.			14.			12.			——			12.			16.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.66	3.33	4.0	2.66	2.66	3.0	3.0	3.33	4.0	2.5	3.5	2.5	3.33	2.33	4.0	2.66	2.66	2.66
	3.0	3.33	3.66	3.0	3.0	2.33	4.66	2.66	3.0	2.75	2.5	3.0	2.66	4.0	3.0	3.0	2.66	3.0
	4.0	2.66	3.0	2.66	3.33	3.0	3.33	4.0	2.66	3.75	2.5	4.25	3.33	2.66	2.66	2.66	2.33	2.66
	2.66	3.66	2.833	2.66	3.33	2.0	3.0	5.33	3.66	3.0	3.0	3.5	2.0	3.66	1.66	3.33	3.0	2.33
	2.66	3.33	2.66	2.66	2.66	2.66	2.66	5.0	3.66	2.75	3.0	2.5	2.33	2.33	4.0	2.66	2.33	2.33
	2.66	3.33	2.0	3.33	2.66	3.0	4.33	5.33	3.33	2.25	2.5	2.5	2.0	3.66	5.33	3.0	2.33	3.0
	2.66	2.66	4.33	3.0	3.33	2.66	4.66	2.33	4.0	3.0	4.5	3.0	2.66	2.66	3.66	3.0	2.66	2.33
	3.0	3.0	3.33	2.66	2.66	2.0	3.33	2.66	3.66	2.75	2.0	3.0	4.33	3.0	2.33	3.33	3.0	2.66
	2.66	3.33	3.33	2.33	2.33	2.33	4.66	3.6	4.0	2.75	3.25	2.0	3.66	2.66	2.30	3.33	3.0	2.66
	3.33	2.66	4.33	3.0	2.66	2.0	3.33	3.0	4.0	2.75	2.5	3.0	3.33	2.66	2.0	2.66	2.66	3.0
	2.66	3.33	3.33	3.0	2.66	3.0	4.66	3.33	2.66	3.5	3.0	2.0	4.0	3.33	2.66	2.66	2.33	2.66
	3.0	3.33	3.33	2.33	2.66	2.66	3.33	3.33	6.33	3.5	3.5	2.5	3.0	2.33	3.66	3.0	2.66	2.33
	2.66	3.33	3.33	2.66	3.33	2.66	3.33	3.0	3.0	4.0	2.75	3.0	2.33	2.66	4.66	4.0	3.0	3.33
	3.33	2.0	2.66	3.33	3.33	3.33	4.66	2.66	3.66	2.5	3.75	1.5	2.33	2.66	3.33	2.66	2.0	2.0
	3.66	2.66	3.33	3.33	3.0	3.0	4.0	4.0	3.66	3.5	2.5	1.75	4.33	5.0	3.0	3.0	2.33	2.66
	3.0	4.0	3.33	1.66	2.66	2.33	4.0	3.33	2.33	3.5	2.5	2.25	2.66	2.66	3.33	2.33	2.66	3.0
	2.66	3.66	4.0	3.33	3.0	2.33	4.0	3.33	4.33	3.5	4.75	2.0	3.33	3.33	4.66	2.66	2.66	2.0
	3.33	3.0	4.0	3.0	2.66	2.66	3.33	4.0	3.66	4.5	2.25	2.5	2.0	2.0	2.66	3.0	2.33	2.66
	4.66	3.33	2.66	2.66	2.66	2.66	3.66	3.66	3.0	3.0	3.0	2.75	2.66	4.0	2.33	3.0	2.66	2.33
	2.66	3.33	4.0	2.33	3.0	2.33	4.0	2.66	3.33	3.5	2.25	2.0	2.66	2.66	3.33	3.0	2.66	2.66
	3.33	3.0	3.33	3.0	2.66	2.66	3.0	2.33	3.0	2.5	2.75	3.5	2.33	3.66	3.33	3.33	3.33	2.33
	3.0	3.33	3.66	2.66	3.33	2.0	3.33	3.33	3.66	2.5	2.0	2.75	2.66	2.66	3.66	2.33	3.0	2.0
	3.0	3.0	3.66	2.66	2.66	2.33	3.33	3.0	4.33	4.5	2.5	3.0	2.66	2.33	3.33	4.66	2.66	3.0
	3.0	4.0	3.66	2.66	3.33	2.66	4.66	4.0	5.0	4.0	2.75	3.5	3.0	3.66	2.33	4.33	2.33	3.0
	4.0	3.66	3.33	2.33	2.66	3.33	3.0	3.0	3.33	3.5	2.25	2.5	2.33	2.33	2.0	2.66	3.66	2.66
	2.66	4.0	3.33	2.66	2.66	3.0	3.33	3.33	5.0	4.0	2.0	3.25	4.0	3.33	2.66	3.0	2.33	3.33
	3.33	3.0	3.0	3.0	2.66	2.66	2.66	4.66	3.66	2.5	2.25	3.0	3.0	3.0	3.0	3.33	2.66	3.33
	2.66	3.66	3.66	3.33	2.66	2.33	3.33	3.33	3.66	2.25	3.5	3.0	3.0	2.66	2.66	2.66	3.33	2.0
	2.66	3.33	3.33	2.33	3.0	2.66	5.33	4.0	2.66	2.0	4.25	2.25	3.33	2.33	3.33	3.33	2.66	3.0
	2.66	3.0	3.33	3.33	2.66	2.66	3.33	4.0	2.33	1.5	3.0	2.75	2.66	2.0	2.0	3.0	2.66	4.0
Averages	3.255	3.277	3.416	2.811	2.888	2.611	3.708	3.494	3.619	3.080	2.866	2.666	2.851	2.945	3.100	3.073	2.777	2.766
	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction: Maximum measurements.	B¹	4.66	1.8346	B¹	3.33	1.3110	B¹	5.33	2.0984	B¹	4.50	1.7716	B¹	4.33	1.7047	B¹	4.66	1.8346
	B²	4.0	1.5748	B²	3.33	1.3110	B²	5.33	2.0984	B²	4.75	1.8700	B²	5.00	1.9685	B²	3.66	1.4409
	B³	4.33	1.7047	B³	3.33	1.3110	B³	6.33	2.4921	B³	4.25	1.6732	B³	5.33	2.0984	B³	4.00	1.5748
Highest	.....	4.66	1.8346	.....	3.33	1.3110	.....	6.33	2.4921	.....	4.75	1.8700	.....	5.33	2.0984	.....	4.66	1.8346
Minimum measurements.	B¹	2.66	1.0472	B¹	1.66	0.6535	B¹	2.66	1.0472	B¹	1.5	0.5905	B¹	2.0	0.7874	B¹	2.33	0.9173
	B²	2.0	0.7874	B²	2.33	0.9173	B²	2.33	0.9173	B²	2.0	0.7874	B²	2.0	0.7874	B²	2.0	0.7874
	B³	2.0	0.7874	B³	2.0	0.7874	B³	2.33	0.9173	B³	2.0	0.7874	B³	1.66	0.6535	B³	2.0	0.7874
Lowest	.....	2.0	0.7874	.....	1.66	0.6535	.....	2.33	0.9173	.....	1.5	0.5905	.....	1.66	0.6535	.....	2.0	0.7874
Average measurements.	B¹	3.255	1.2814	B¹	2.811	1.1066	B¹	3.708	1.4578	B¹	3.080	1.2125	B¹	2.851	1.1224	B¹	3.073	1.2098
	B²	3.277	1.2901	B²	2.888	1.1370	B²	3.494	1.3755	B²	2.866	1.1283	B²	2.945	1.1594	B²	2.777	1.0933
	B³	3.416	1.3448	B³	2.611	1.0279	B³	3.619	1.4248	B³	2.666	1.0496	B³	3.100	1.2204	B³	2.766	1 0889
Average	.....	3.316	1.3055	.....	2.770	1.0905	.....	3.607	1.4200	.....	2.705	1.0649	.....	2.965	1.1673	.....	2.872	1.1307
Measurements above average	.....	51		.....	33		.....	42		.....	53		.....	42		.....	38	
Measurements below average	.....	39		.....	57		.....	48		.....	37		.....	48		.....	52	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

SOUTHDOWN.

Catalogue number of samples	91. SHOULDER.			93. SIDE.			93. HIP.			93. BELLY.		94. SHOULDER.			94. SIDE.		
Length of fiber in crimp	1 1/16 inches.			1 inch.			1 1/8 inches.			——		1 1/4 inches.			1 1/8 inches.		
Number of crimps per inch	12			14			12			12		14			14		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.66	3.66	3.33	2.66	2.0	2.66	3.33	3.33	3.0	2.0	2.66	2.66	2.66	2.66	2.66	2.66	3.0
	2.66	2.66	3.0	3.0	2.0	3.0	3.33	3.33	2.33	2.66	2.66	2.66	2.66	2.66	2.66	3.0	3.0
	3.33	2.66	3.0	2.66	2.66	3.0	3.0	4.0	2.66	3.0	2.0	3.0	2.33	3.33	2.66	3.33	2.33
	2.66	3.0	2.66	3.66	4.0	2.66	4.0	4.0	2.33	2.0	2.33	2.66	2.66	2.33	4.0	3.66	3.33
	2.66	2.66	2.0	2.0	2.0	2.0	3.0	2.33	3.33	3.0	2.66	2.66	2.66	3.0	2.66	3.66	3.33
	3.0	2.66	2.0	2.66	2.66	4.0	3.0	3.33	3.0	2.66	2.33	2.33	2.33	2.0	3.33	3.33	3.0
	3.33	2.66	3.0	3.0	3.33	2.66	3.33	5.0	5.0	2.33	3.33	3.33	2.66	4.33	2.66	2.33	3.0
	2.66	3.0	3.33	3.33	3.66	2.66	2.66	3.33	3.33	3.33	3.33	2.66	2.66	2.66	2.66	3.0	3.0
	2.66	2.66	3.0	3.33	3.0	3.33	3.33	3.0	4.0	3.0	4.0	3.0	3.33	2.33	3.33	2.33	2.66
	3.66	2.66	3.33	2.66	3.0	3.0	2.66	3.33	2.66	2.33	2.66	2.66	3.66	2.0	3.0	3.33	2.66
	2.66	3.0	2.66	2.66	3.33	2.66	2.33	2.66	2.66	3.0	3.0	3.33	2.66	2.66	3.0	3.33	2.66
	2.33	2.66	3.33	3.0	3.0	2.66	4.66	2.66	2.33	2.66	2.66	2.33	2.66	2.66	2.66	2.66	2.66
	3.0	2.66	3.66	3.33	3.33	2.33	3.33	2.66	2.66	2.66	2.66	2.66	2.66	3.33	2.66	3.33	3.33
	3.33	2.66	3.0	3.33	2.66	3.33	2.66	2.66	2.66	3.33	2.33	3.33	2.33	3.0	1.66	2.66	2.66
	4.33	4.0	3.0	2.0	2.66	3.0	4.0	2.66	3.0	3.0	3.0	3.0	4.0	2.33	3.66	3.66	3.33
	2.33	3.0	2.66	2.66	3.0	3.33	3.33	3.0	3.66	3.33	2.33	2.33	3.33	2.66	3.66	3.0	2.66
	3.33	2.66	3.0	2.66	4.0	3.33	2.33	2.66	2.66	2.66	2.66	2.66	2.66	2.66	3.33	3.0	2.66
	3.0	3.33	3.0	2.33	3.0	2.66	3.33	3.33	3.0	3.33	3.33	4.66	3.0	2.33	2.33	3.33	2.0
	2.66	3.33	3.0	3.66	2.66	2.66	3.33	2.33	3.33	2.66	2.66	2.33	3.0	2.33	3.33	3.0	2.66
	3.66	3.33	3.66	3.33	2.33	3.33	2.33	3.0	3.0	3.0	3.0	2.66	2.66	2.33	3.33	3.33	2.66
	2.0	3.33	3.0	3.0	2.66	3.66	2.33	3.33	2.66	2.0	3.0	3.33	2.33	2.33	3.0	3.0	2.66
	3.0	3.33	3.33	2.66	2.0	2.33	3.33	3.0	3.0	2.33	2.66	2.66	2.33	2.66	2.33	2.66	3.0
	3.0	3.33	2.66	1.66	3.0	2.66	2.66	2.66	3.33	2.66	3.33	2.66	2.33	3.0	2.66	3.0	3.33
	2.66	2.33	2.66	3.66	3.33	3.0	3.0	3.0	3.66	3.0	2.33	2.66	2.66	2.33	2.33	3.0	2.33
	2.66	3.33	3.33	3.0	3.33	3.33	3.33	4.0	2.33	3.0	2.66	2.66	3.33	2.66	3.0	2.0	2.33
	2.33	2.66	2.66	3.0	2.0	3.0	3.66	3.0	3.0	3.0	2.66	2.66	2.66	2.66	4.0	3.33	2.66
	2.66	3.66	3.33	3.33	3.33	3.33	3.0	4.0	2.66	2.66	2.66	3.0	2.66	3.0	2.66	3.33	3.0
	2.66	4.0	2.66	3.66	4.0	2.66	4.33	3.0	3.66	4.33	2.66	2.33	2.66	4.33	3.0	3.66	3.0
	3.0	3.33	2.66	2.0	3.0	2.66	3.0	4.33	3.33	3.33	2.0	2.66	2.66	2.0	3.0	2.66	3.0
	2.33	3.33	2.66	4.0	3.0	2.66	2.66	3.0	3.0	3.33	2.33	3.0	2.66	3.33	2.66	3.33	2.66
Averages	2.877	3.055	2.888	2.933	2.955	2.955	3.167	3.122	3.044	2.844	2.733	2.728	2.806	2.696	2.933	3.006	2.823

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements	B¹	4.33	1.7047	B¹	4.0	1.5748	B¹	4.66	1.8346	B¹	4.33	1.7047	B¹	4.66	1.8346	B¹	4.0	1.5748
	B²	4.0	1.5748	B²	4.0	1.5748	B²	4.33	1.7047	B²	4.0	1.5748	B²	4.0	1.5748	B²	3.66	1.4409
	B³	3.66	1.4409	B³	4.0	1.5748	B³	5.0	1.9685	....	.....	.....	B³	4.33	1.7047	B³	3.23	1.3110
Highest	.....	4.33	1.7047	.....	4.0	1.5748	.....	5.0	1.9685	....	4.33	1.7047	.....	4.66	1.8346	.....	4.0	1.5748
Minimum measurements	B¹	2.0	0.7874	B¹	1.66	0.6535	B¹	2.33	0.9173	B¹	2.0	0.7874	B¹	2.33	0.9173	B¹	1.66	0.6535
	B²	2.66	1.0472	B²	2.0	0.7874	B²	2.33	0.9173	B²	2.0	0.7874	B²	2.33	0.9173	B²	2.33	0.9173
	B³	2.0	0.7874	B³	2.0	0.7874	B³	2.33	0.9173	....	.....	.....	B³	2.0	0.7874	B³	2.0	0.7874
Lowest	.....	2.0	0.7874	.....	1.66	0.6535	.....	2.33	0.9173	....	2.0	0.7874	.....	2.0	0.7874	.....	1.66	0.6535
Average measurements	B¹	2.877	1.1326	B¹	2.933	1.1547	B¹	3.167	1.2468	B¹	2.844	1.1196	B¹	2.728	1.0740	B¹	2.933	1.1547
	B²	3.055	1.2027	B²	2.955	1.1633	B²	3.122	1.2291	B²	2.733	1.0759	B²	2.806	1.1047	B²	3.006	1.1833
	B³	2.888	1.1370	B³	2.955	1.1633	B³	3.044	1.1984	....	.....	.....	B³	2.696	1.0614	B³	2.823	1.1114
Average	.....	2.940	1.1574	.....	2.947	1.1602	.....	3.111	1.2248	....	2.788	1.0778	.....	2.743	1.0799	.....	2.940	1.1574
Measurements above average	.....		46	.....		52	.....		38	....		23	.....		35	.....		51
Measurements below average	.....		44	.....		38	.....		52	....		35	.....		65	.....		39

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	SOUTHDOWN.																	
Catalogue number of samples	94. HIP.				94. BELLY.			95. SHOULDER.			95. SIDE.			95. HIP.			95. BELLY.		
Length of fiber in crimp	2 inches.				$\frac{7}{8}$ inch.			$1\frac{1}{8}$ inches.			$1\frac{7}{8}$ inches.			$1\frac{3}{4}$ inches.			$1\frac{5}{8}$ inches.		
Number of crimps per inch	——				——			14.			14.			12.			——		
Number of section	B^1	B^2	B^3	B^4	B^1	B^2	B^3	B^1	B^2	B^3	B^1	B^2	B^3	B^1	B^2	B^3	B^1	B^2	B^3
Actual measurement in centimillimeters.	3.0	3.66	4.66	4.33	3.33	3.33	3.33	3.33	3.0	2.33	2.33	2.33	2.66	2.66	3.33	2.0	2.66	3.33	3.33
	3.33	4.66	2.66	4.0	3.0	3.0	3.33	2.33	2.33	2.0	2.66	3.0	2.66	2.33	2.0	4.0	2.66	3.0	2.66
	2.66	3.66	2.33	3.33	4.0	2.0	2.66	2.0	2.66	2.0	2.0	2.66	2.66	2.0	3.66	2.33	2.66	2.33	3.33
	2.66	3.66	3.33	4.0	2.66	3.0	3.0	2.66	2.66	1.66	2.66	3.0	2.66	3.66	3.66	2.33	2.33	2.0	2.66
	4.33	3.66	3.33	4.0	3.33	3.33	3.33	2.66	2.0	2.0	2.66	2.66	2.66	3.66	3.33	2.33	4.0	2.66	3.33
	3.33	4.0	3.33	3.33	2.66	3.0	3.33	2.66	2.66	3.0	1.66	2.33	2.66	2.66	3.0	2.0	3.66	3.0	3.33
	3.33	3.66	3.33	3.33	3.33	3.33	2.66	2.66	2.0	2.66	3.33	2.66	2.66	2.33	3.33	3.33	2.66	2.33	2.66
	3.33	3.33	4.0	4.0	3.33	3.0	2.66	2.66	3.0	2.66	2.33	2.33	2.33	4.0	2.0	3.33	2.33	2.0	2.66
	4.33	3.66	2.66	3.33	2.66	3.0	3.0	2.0	2.0	2.66	2.66	2.33	2.0	2.66	3.33	2.0	2.66	2.66	3.0
	4.0	3.0	2.66	3.33	3.0	3.0	3.33	2.66	2.33	2.0	2.33	2.33	2.66	2.0	2.0	2.33	2.66	2.66	3.0
	3.33	2.0	3.66	4.66	2.33	3.33	2.33	2.33	2.66	2.0	1.66	3.0	2.33	2.0	2.66	3.33	2.66	3.66	3.33
	3.66	2.66	3.33	4.0	3.66	3.0	3.0	3.0	2.0	2.33	3.0	1.66	2.66	3.33	2.66	2.33	2.66	3.33	3.33
	2.0	4.33	2.33	3.0	2.66	2.66	2.66	3.0	2.33	2.33	2.66	2.66	2.33	2.0	2.33	2.33	2.33	3.0	3.0
	2.33	3.66	4.66	2.0	2.33	2.66	2.66	4.0	2.66	2.33	2.0	2.0	2.33	2.33	3.33	3.33	2.66	2.66	3.33
	2.66	5.33	3.0	3.33	2.33	2.33	2.66	2.66	2.66	2.66	2.0	2.66	2.66	3.33	2.33	3.0	2.66	3.0	3.33
	4.0	4.0	4.0	4.0	3.33	3.0	3.33	2.33	2.33	2.0	2.66	2.33	2.0	2.66	2.66	2.33	2.66	3.0	3.0
	3.33	4.33	2.66	3.66	2.66	3.66	2.33	2.0	2.66	2.66	3.0	2.66	3.33	2.33	3.33	2.33	2.33	2.66	3.33
	5.0	3.33	4.0	3.66	2.66	3.0	2.66	2.33	3.33	2.33	2.66	2.33	2.66	2.0	4.0	3.33	3.66	2.33	2.66
	4.0	3.66	3.66	3.33	3.33	4.33	2.66	2.66	2.0	2.0	3.33	2.66	2.33	3.0	2.33	3.33	3.0	2.66	3.0
	4.0	3.0	3.33	3.0	2.66	2.66	2.33	2.33	2.66	2.66	2.33	2.66	1.66	4.66	2.0	1.66	2.33	2.0	2.0
	4.0	4.33	2.33	3.33	2.0	2.66	3.0	2.33	2.66	3.33	2.0	2.33	2.33	3.33	3.66	3.33	2.33	2.0	2.0
	2.66	4.0	3.33	3.33	2.66	3.33	2.66	2.0	2.0	2.0	2.0	2.0	2.66	2.33	3.33	4.0	2.33	3.3	2.0
	3.33	3.0	4.0	4.0	2.66	3.33	3.33	2.66	2.66	2.0	2.33	3.0	2.0	2.0	4.0	3.0	1.66	2.33	2.0
	3.33	3.33	4.33	3.0	3.33	2.66	3.0	2.66	3.33	3.0	2.0	3.0	3.0	3.33	2.33	3.33	4.0	2.33	2.66
	3.33	4.66	3.66	2.33	3.33	2.66	2.66	3.33	2.0	3.33	2.0	2.0	2.66	2.0	3.33	3.0	3.0	2.66	3.0
	3.66	3.0	4.33	2.33	1.66	3.33	3.0	2.33	2.33	2.33	2.33	2.33	2.66	2.33	3.33	2.33	2.33	2.66	2.66
	3.33	4.0	4.0	4.0	3.0	2.33	2.66	2.33	2.33	2.0	2.33	2.33	2.66	2.33	2.66	2.0	2.66	3.33	3.0
	3.66	3.33	3.66	3.66	2.66	2.66	3.0	2.66	2.33	2.33	2.66	3.0	2.33	2.66	2.66	3.0	2.66	2.66	3.0
	3.33	2.66	4.0	4.0	3.33	2.33	2.66	2.0	3.33	2.66	2.66	2.33	2.66	2.0	2.66	2.0	2.66	2.66	2.66
	3.0	3.33	3.33	2.0	3.33	3.0	3.0	2.33	2.66	2.66	2.66	3.33	2.33	2.0	3.33	2.0	2.0	3.0	3.33
Averages	3.406	3.677	3.466	3.455	2.877	3.000	2.877	2.567	2.523	2.400	2.434	2.545	2.511	2.666	2.955	2.711	2.733	2.733	2.955

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reductions:																		
Maximum measurements.	B^1	5.0	1.9685	B^1	4.0	1.5748	B^1	4.0	1.5748	B^1	3.33	1.3110	B^1	4.66	1.8346	B^1	4.0	1.5748
	B^2	5.66	2.2283	B^2	4.33	1.7047	B^2	3.33	1.3110	B^2	3.33	1.3110	B^2	4.0	1.5748	B^2	3.66	1.4409
	B^3	4.66	1.8346	B^3	3.33	1.3110	B^3	3.33	1.3110	B^3	3.33	1.3110	B^3	4.0	1.5748	B^2	3.33	1.3110
	B^4	4.66	1.8346	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Highest	.....	5.66	2.2283	....	4.33	1.7047	.....	4.0	1.5748	.....	3.33	1.3110	.....	4.66	1.8346	.....	4.0	1.5748
Minimum measurements.	B^1	2.0	0.7874	B^1	1.66	0.6535	B^1	2.0	0.7874	B^1	1.66	0.6535	B^1	2.0	0.7874	B^1	1.66	0.6535
	B^2	2.0	0.7874	B^2	2.0	0.7874	B^2	2.0	0.7874	B^2	1.66	0.6535	B^2	2.0	0.7874	B^2	2.0	0.7874
	B^3	2.33	0.9173	B^3	2.33	0.9173	B^3	1.66	0.6535	B^3	1.66	0.6535	B^3	1.66	0.6535	.....	.....	.....
	B^4	2.0	0.7874	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lowest	.....	2.0	0.7874	....	2.0	0.7874	.....	1.66	0.6535	.....	1.66	0.6535	.....	1.66	0.6535	.....	1.66	0.6535
Average measurements.	B^1	3.406	1.3401	B^1	2.877	1.1326	B^1	2.567	1.0106	B^1	2.434	0.9582	B^1	2.666	1.0496	B^1	2.733	1.0759
	B^2	3.677	1.4476	B^2	3.000	1.1811	B^2	2.523	0.9933	B^2	2.545	1.0019	B^2	2.955	1.1633	B^2	2.733	1.0759
	B^3	3.466	1.3645	B^3	2.877	1.1326	B^3	2.400	0.9448	B^3	2.511	0.9886	B^3	2.711	1.0673	B^3	2.955	1.1633
	B^4	3.455	1.3602	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Average	.....	3.501	1.3783	....	2.918	1.1488	.....	2.496	0.9826	.....	2.496	0.9826	.....	2.777	1.0933	.....	2.807	1.1051
Measurements above average	.....	41		....	49		.....	44		.....	46		.....	39		.....	[illegible]	
Measurements below average	.....	16		....	41		.....	16		.....	44		.....	51		.....	14	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	SOUTHDOWN.																	
Catalogue number of samples	132.			133.			134.			135.			136.			137.		
Length of fiber in crimp	1½ inches.			1½ inches.			1½ inches.			1½ inches.			1 inch.			1½ inches.		
Number of crimps per inch	——			——			——			——			——			——		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	3.0	2.875	3.0	2.25	2.75	3.75	3.375	3.875	3.5	2.625	2.25	3.0	2.75	3.125	2.0	3.875	2.5	2.875
	2.625	2.375	3.375	2.375	2.875	2.875	1.375	3.25	2.75	3.0	2.0	3.5	2.875	2.625	2.375	3.0	2.25	2.375
	1.875	2.375	2.5	3.0	2.875	2.75	2.875	2.0	3.125	2.75	2.375	3.875	2.5	3.75	3.875	3.375	2.625	2.5
	2.5	2.625	3.0	1.875	1.625	3.375	2.5	3.125	3.375	2.875	2.25	3.125	2.75	1.75	3.25	3.0	2.25	3.75
	2.5	2.5	3.625	2.5	3.5	2.875	2.75	2.75	3.625	2.375	2.75	3.875	2.875	2.25	2.875	3.25	3.375	2.75
	2.625	3.5	3.25	2.875	1.25	3.375	1.5	3.125	4.0	3.5	3.5	3.5	3.25	2.25	3.5	4.0	3.75	2.25
	3.0	2.875	3.375	1.125	1.5	2.75	2.125	2.5	3.625	2.25	3.75	3.0	2.25	2.125	2.75	3.5	3.5	2.625
	2.5	2.5	2.625	2.625	3.5	2.875	3.375	4.125	4.0	0.875	2.375	3.75	2.125	3.5	3.5	3.0	3.0	3.875
	3.0	2.5	2.5	3.125	2.375	2.875	2.75	3.5	3.875	2.625	3.25	3.25	2.5	3.875	3.0	3.75	4.125	3.25
	2.625	3.125	3.0	3.25	3.5	3.125	3.0	4.75	3.375	3.0	3.75	3.375	3.0	2.625	2.25	2.75	3.375	2.75
	3.0	3.375	4.0	3.0	3.5	3.125	3.625	4.0	3.375	3.375	3.75	3.25	2.0	3.375	2.25	2.5	2.0	3.25
	3.0	2.375	3.75	2.5	3.25	3.75	2.5	3.375	3.75	2.375	3.75	2.375	2.375	2.25	2.5	2.875	3.375	3.125
	3.0	3.75	3.0	2.5	2.25	3.75	2.5	3.5	3.375	3.75	3.75	2.375	2.0	2.75	2.0	3.375	2.75	3.0
	2.625	2.375	3.25	2.25	1.5	3.5	3.5	2.75	3.375	3.0	3.375	3.125	2.5	2.5	2.375	3.25	2.0	2.5
	2.5	2.75	3.25	2.5	3.5	3.0	3.375	2.5	3.625	2.25	2.0	2.875	2.375	2.875	3.125	3.0	3.75	2.75
	2.375	2.5	2.75	2.75	2.875	3.0	3.375	3.75	3.625	2.5	3.5	3.0	1.5	2.625	2.875	3.0	3.875	4.0
	2.625	3.5	2.875	3.125	2.25	2.375	3.125	2.875	3.125	2.5	3.625	3.0	2.125	1.875	3.0	2.25	2.375	3.375
	3.0	2.875	2.75	2.25	2.375	1.375	2.875	3.875	3.5	3.25	3.0	2.75	2.125	3.0	3.0	2.375	3.375	2.625
	3.375	2.125	3.25	3.0	2.75	3.0	3.375	2.75	4.0	3.375	3.0	3.875	1.875	2.25	2.75	3.5	3.375	3.75
	1.75	2.875	3.375	3.125	2.875	3.125	3.0	3.0	3.75	2.375	3.125	3.5	3.75	2.25	3.25	3.25	3.5	4.875
	2.125	2.875	3.375	2.875	3.25	3.5	3.25	2.125	3.625	4.0	3.375	2.5	1.875	2.875	2.5	3.125	3.375	2.875
	1.75	2.0	3.25	2.625	2.875	3.25	4.5	1.875	3.375	3.125	3.25	2.5	2.75	3.125	2.5	3.125	3.5	4.375
	3.25	2.25	3.25	3.25	3.25	3.25	2.125	2.375	3.0	3.5	2.75	3.0	2.375	2.25	3.0	2.875	3.75	3.375
	2.875	2.625	2.5	2.375	1.75	2.5	3.25	3.25	3.75	2.75	4.25	3.125	2.75	1.75	2.375	2.375	4.0	3.875
	3.125	2.0	3.75	3.0	2.625	2.75	3.125	3.125	3.5	3.25	2.75	2.875	2.25	2.625	2.375	3.0	3.25	3.25
	2.25	2.625	3.125	2.875	3.375	3.875	3.25	4.125	3.875	2.375	3.125	2.5	2.0	3.5	3.0	3.25	3.75	2.125
	2.875	3.25	3.125	3.0	3.25	3.125	3.875	3.0	3.625	2.625	3.5	3.25	1.875	2.625	2.0	2.25	3.5	3.375
	2.375	2.5	3.0	2.875	3.125	3.25	4.0	2.875	4.0	3.125	2.875	4.25	2.375	2.0	3.0	3.0	3.0	4.5
	2.5	2.375	3.0	2.5	1.75	3.75	4.375	3.125	4.25	2.875	3.5	3.5	2.375	3.25	3.5	3.625	3.25	3.0
	2.5	3.25	2.875	2.5	3.0	3.25	3.75	3.25	3.875	3.375	3.25	2.75	2.75	3.5	2.875	3.125	3.875	3.25
Averages	2.604	2.716	3.125	2.662	2.704	3.194	3.045	3.100	3.554	2.854	3.008	3.070	2.379	2.920	2.791	3.087	3.295	3.245

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements	B¹	3.875	1.5257	B¹	3.25	1.2795	B¹	4.375	1.7224	B¹	4.0	1.5748	B¹	3.75	1.4763	B¹	4.0	1.5748
	B²	3.75	1.4763	B²	3.5	1.3779	B²	4.75	1.8700	B²	4.25	1.6732	B²	3.75	1.4763	B²	5.5	2.1653
	B³	4.0	1.5748	B³	3.875	1.5255	B³	4.25	1.6732	B³	4.25	1.6732	B³	3.875	1.5255	B³	4.875	1.9192
Highest	.....	4.0	1.5748	.....	3.875	1.5255	.....	4.75	1.8700	.....	4.25	1.6733	.....	3.875	1.5255	.....	5.5	2.1653
Minimum measurements	B¹	1.75	0.6889	B¹	1.125	0.4429	B¹	1.375	0.5413	B¹	0.875	0.3444	B¹	1.5	0.5905	B¹	2.25	0.8858
	B²	2.125	0.8366	B²	1.25	0.4291	B²	1.875	0.7380	B²	2.0	0.7874	B²	1.75	0.6889	B²	2.0	0.7874
	B³	2.5	0.9842	B³	1.375	0.5413	B³	2.75	1.0826	B³	2.0	0.7874	B³	2.0	0.7874	B³	2.125	0.8366
Lowest	.....	1.75	0.6889	.....	1.125	0.4429	.....	1.375	0.5413	.....	0.875	0.3444	.....	1.5	0.5905	.....	2.0	0.7874
Average measurements	B¹	2.604	1.0251	B¹	2.662	1.0480	B¹	3.045	1.1988	B¹	2.854	1.1236	B¹	2.379	0.9366	B¹	3.087	1.2153
	B²	2.716	1.0692	B²	2.704	1.0645	B²	3.100	1.2204	B²	3.008	1.2070	B²	2.920	1.1496	B²	3.295	1.2972
	B³	3.125	1.2303	B³	3.104	1.2220	B³	3.554	1.3992	B³	3.070	1.2088	B³	2.791	1.0988	B³	3.245	1.2775
Average	.....	2.815	1.1082		2.823	1.1114		3.233	1.2728		2.998	1.1795		2.696	1.0614		3.209	1.2633
Measurements above average	.....	43		.....	38		.....	38		.....	52		.....	41		.....	47	
Measurements below average	.....	47		.....	35		.....	37		.....	38		.....	49		.....	43	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	SOUTHDOWN.																	
Catalogue number of samples..	138.			139.			140.			141.			142.			143.		
Length of fiber in crimp.....	1 5/16 inches.			2 inches.			1¾ inches.			1⅛ inches.			1 inch.			1¼ inches.		
Number of crimps per inch....	——			——			——			——			——			——		
Number of section.....	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.375	3.375	3.25	3.75	2.875	2.125	3.125	2.125	2.0	3.0	2.5	2.75	3.125	3.0	3.0	2.25	3.625	2.875
	2.5	3.125	2.5	2.875	2.625	3.875	2.625	2.875	2.5	3.125	2.75	2.25	2.25	2.875	3.125	2.625	2.875	3.0
	2.0	2.5	2.25	3.125	4.25	1.75	2.875	3.375	2.75	2.875	2.875	3.0	2.75	1.875	2.35	4.75	3.25	3.125
	2.375	3.125	2.125	3.625	3.875	1.875	2.875	3.75	2.625	2.375	2.125	2.875	2.875	2.875	2.125	2.5	3.625	5.0
	2.125	2.625	2.5	4.75	2.875	3.0	2.375	3.875	2.625	4.75	3.0	4.0	2.125	2.5	2.875	2.5	3.125	3.5
	2.125	2.75	2.0	3.75	2.0	2.375	2.125	3.25	2.0	3.75	2.75	2.625	1.75	2.375	3.0	4.125	3.125	4.25
	1.625	2.75	3.0	2.25	2.625	1.875	3.875	2.75	3.75	2.75	2.875	2.5	2.25	3.0	1.625	2.75	3.25	2.5
	2.375	2.75	2.375	2.625	3.25	3.375	3.5	4.25	2.375	2.75	3.25	3.5	2.375	2.25	2.625	2.125	2.5	3.5
	2.0	1.25	2.125	4.25	2.75	3.0	2.375	2.5	2.125	2.125	4.0	2.875	2.75	3.5	2.875	2.375	2.375	3.375
	2.125	2.125	2.125	2.5	4.0	1.625	3.625	3.375	2.0	3.25	3.125	2.5	2.5	2.5	2.375	5.0	3.0	2.5
	2.25	2.75	2.5	3.75	2.5	3.0	3.125	3.25	2.0	2.75	3.625	3.0	3.25	2.25	3.0	2.0	3.25	2.5
	2.5	2.375	2.5	2.375	1.625	1.875	3.5	2.875	2.75	3.625	3.25	1.5	2.25	3.5	3.0	3.375	3.25	3.0
	2.5	2.375	2.375	3.5	4.125	2.5	2.875	2.75	2.875	2.375	3.25	1.875	3.0	2.625	2.625	3.625	3.25	3.0
	2.5	3.125	3.75	2.375	2.5	3.25	2.625	2.75	2.625	2.375	5.0	2.875	3.25	2.75	2.0	3.5	2.625	2.75
	2.25	3.0	2.0	2.25	2.375	2.5	3.5	3.0	2.875	1.75	3.0	2.125	2.75	2.375	2.875	1.75	2.75	3.25
	2.75	2.375	2.375	2.5	3.5	2.0	2.25	2.875	2.25	3.375	2.75	2.875	2.5	3.375	2.75	3.375	2.75	2.875
	2.5	2.5	2.375	2.125	2.775	2.25	2.125	2.75	2.875	1.875	3.0	2.5	2.25	2.625	2.25	4.5	3.375	3.5
	2.5	2.5	2.375	4.25	2.125	2.375	3.375	2.375	2.25	3.875	3.0	2.875	3.0	3.0	2.125	4.25	2.75	3.5
	3.0	3.125	2.5	3.5	3.0	1.625	2.0	3.75	2.0	2.375	3.5	2.625	4.0	2.75	1.875	3.5	3.25	3.25
	2.625	2.75	3.25	2.25	3.0	1.625	3.25	3.75	2.25	3.5	2.875	1.875	3.0	3.5	2.375	2.625	3.625	3.5
	2.875	3.375	2.625	2.75	2.25	3.0	2.375	3.0	1.75	3.5	2.75	2.375	3.0	2.5	2.0	3.75	3.125	3.375
	3.125	2.75	2.5	2.875	2.125	2.25	3.5	3.75	2.375	2.625	2.375	2.5	3.0	3.5	2.75	3.75	3.875	2.375
	2.5	2.875	2.375	3.5	2.375	3.5	3.5	2.75	2.625	2.75	3.0	2.625	2.875	3.0	2.125	2.75	3.5	2.75
	2.625	2.25	2.5	3.25	1.75	2.25	3.25	2.5	2.375	2.25	2.5	2.25	2.875	3.125	2.375	3.125	4.125	3.625
	2.875	2.375	1.75	3.375	2.5	1.875	3.0	2.875	1.875	2.375	3.25	3.0	2.5	2.375	2.5	3.125	2.625	3.25
	2.875	2.625	2.375	2.375	2.75	2.75	2.5	3.125	2.625	2.125	2.875	3.0	2.875	2.75	2.375	3.25	2.25	3.25
	3.5	3.0	2.625	4.25	2.5	1.875	2.5	2.75	2.125	2.5	3.25	2.75	2.75	2.625	3.125	3.5	3.25	3.0
	2.875	2.125	2.25	2.125	2.5	2.375	3.5	2.375	2.875	2.375	2.0	2.75	3.625	3.375	3.0	3.0	2.875	3.25
	3.375	2.875	3.0	1.75	4.75	1.625	2.375	3.25	2.25	3.5	3.25	2.5	2.75	2.5	3.125	4.25	2.25	3.25
	3.375	2.625	3.375	2.625	2.5	1.875	2.5	2.5	2.0	4.125	2.875	2.75	1.875	2.125	2.375	2.875	2.5	2.875
Averages	2.550	2.670	2.520	3.041	2.821	2.375	2.900	2.037	2.412	2.891	3.020	2.583	2.779	2.745	2.553	2.804	3.066	3.191

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	3.5	1.3779	B¹	4.75	1.8700	B¹	3.875	1.5255	B¹	4.75	1.8700	B¹	4.00	1.5748	B¹	5.000	1.9685
	B²	3.375	1.3287	B²	4.75	1.8700	B²	4.25	1.6732	B²	4.00	1.5748	B²	3.50	1.3779	B²	4.125	1.6240
	B³	3.75	1.4763	B³	3.875	1.5255	B³	3.75	1.4763	B³	4.00	1.5748	B³	3.125	1.2303	B³	5.000	1.9685
Highest.....	.....	3.75	1.4763	.....	4.75	1.8700	.....	4.25	1.6732	.....	4.75	1.8700	.....	4.00	1.5748	.....	5.000	1.9685
Minimum measurements.	B¹	1.625	0.6397	B¹	1.75	0.6889	B¹	2.125	0.8366	B¹	1.75	0.6889	B¹	1.75	0.6889	B¹	1.75	0.6889
	B²	1.25	0.4921	B²	1.625	0.6397	B²	2.125	0.8366	B²	2.00	0.7874	B²	1.875	0.7381	B²	2.25	0.8858
	B³	1.75	0.6889	B³	1.625	0.6397	B³	1.75	0.6889	B³	1.50	0.5905	B³	1.625	0.6397	B³	2.50	0.9842
Lowest	.....	1.25	0.4921	.....	1.625	0.6397	.....	1.75	0.6889	.....	1.50	0.5905	.....	1.625	0.6397	.....	1.75	0.6889
Average measurements..	B¹	2.550	1.0039	B¹	3.041	1.1972	B¹	2.900	1.1417	B¹	2.891	1.1381	B¹	2.779	1.0940	B¹	2.804	1.1039
	B²	2.670	1.0511	B²	2.821	1.1106	B²	2.037	0.9330	B²	3.020	1.1889	B²	2.745	1.0807	B²	3.066	1.2070
	B³	2.520	0.9921	B³	2.375	0.9350	B³	2.412	0.9496	B³	2.583	1.0169	B³	2.553	1.0051	B³	3.191	1.2562
Average	.....	2.580	1.0157	.....	2.745	1.0807	.....	2.449	0.9641	.....	2.831	1.1145	.....	2.692	1.0598	.....	3.020	1.1889
Measurements above average..	.....	38		.....	40		.....	61		.....	45		.....	48		.....	51	
Measurements below average..	.....	52		.....	50		.....	29		.....	45		.....	42		.....	39	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	SOUTHDOWN.																	
Catalogue number of samples	144.			145.			146.			147.			148.			149.		
Length of fiber in crimp	1⅞ inches.			1¼ inches.			1⅞ inches.			1⅞ inches.			1⅞ inches.			2 inches.		
Number of crimps per inch	——			——			——			——			——			——		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	2.875	3.625	2.875	3.75	3.75	2.125	2.75	3.0	2.0	1.75	3.75	2.5	2.625	3.25	3.25	2.375	3.0	2.0	2.75
	2.5	2.875	3.0	4.25	2.875	2.375	4.125	2.25	2.125	2.875	2.0	3.0	2.5	4.0	2.75	2.125	2.125	3.0	2.75
	2.25	3.25	3.125	2.0	3.0	2.75	2.5	2.25	3.375	3.25	3.75	2.625	3.75	1.5	2.75	2.625	2.5	2.25	3.375
	3.5	3.625	5.0	3.25	2.875	2.75	2.5	2.625	2.875	2.875	2.375	2.625	3.375	4.0	3.75	2.5	2.875	3.0	2.875
	3.0	3.125	3.5	3.25	2.875	3.5	3.125	2.25	2.25	3.25	3.0	3.375	3.875	3.75	2.5	2.5	2.5	3.25	2.5
	3.0	3.125	4.25	3.0	3.125	2.0	2.875	3.125	2.25	2.25	2.25	2.125	3.25	2.75	3.125	2.5	2.625	2.0	3.0
	2.375	3.125	2.5	3.125	3.375	3.5	2.375	4.0	2.0	2.625	3.75	2.375	2.5	2.5	1.5	2.75	3.0	2.0	2.625
	3.0	2.5	3.5	3.0	3.5	2.75	2.5	2.5	3.5	3.875	1.875	1.375	3.125	2.75	2.25	3.0	3.125	2.875	2.625
	2.875	2.375	3.375	2.625	2.875	3.0	2.875	3.75	2.0	2.125	3.125	3.375	2.5	3.25	3.25	2.875	2.75	3.5	3.5
	3.0	3.0	2.5	4.0	3.75	3.0	3.25	2.875	2.75	1.875	2.5	1.75	3.875	4.125	1.625	4.0	3.625	2.375	2.875
	2.5	3.25	2.5	3.5	3.25	2.0	3.375	3.125	3.0	2.625	2.375	2.25	4.0	2.75	2.875	1.875	3.75	2.75	1.875
	2.875	3.25	2.0	3.375	3.625	3.0	3.0	2.625	3.0	2.625	2.875	2.25	2.75	3.125	2.75	2.625	2.25	2.0	2.5
	3.0	3.25	3.0	2.25	3.5	2.75	3.0	2.875	2.875	2.875	3.0	2.5	2.25	2.75	3.25	3.125	2.625	2.875	2.875
	2.0	2.625	2.75	3.125	3.875	3.75	4.5	2.625	2.125	1.5	2.75	2.625	2.75	2.75	2.75	4.5	2.5	3.625	1.625
	2.5	2.75	3.25	3.25	3.375	3.125	2.5	2.625	2.25	2.625	2.0	2.25	2.25	3.875	3.25	2.5	2.25	1.75	1.375
	3.375	2.75	2.875	3.75	3.125	3.25	2.375	3.125	2.75	2.875	2.875	2.0	3.625	3.125	3.625	2.875	3.875	1.625	2.625
	2.875	3.375	3.5	3.25	2.5	3.5	3.125	2.5	2.0	2.5	2.25	2.75	2.375	3.25	2.0	3.0	2.875	1.875	3.375
	3.125	2.75	3.5	3.375	2.5	2.75	2.625	3.0	2.25	2.75	3.125	2.75	2.25	2.375	1.625	2.375	3.0	1.75	3.0
	3.375	3.25	3.25	3.625	2.875	3.125	3.375	2.75	2.5	3.875	2.375	2.5	3.375	2.75	2.5	2.25	3.375	3.0	2.0
	2.875	3.625	3.5	3.0	3.25	2.75	3.375	4.375	3.375	2.25	2.5	4.0	4.875	2.375	2.25	2.625	2.125	2.625	1.625
	2.5	3.125	3.375	2.375	2.375	3.375	2.75	3.0	3.5	2.0	3.0	3.125	4.75	2.75	2.25	3.0	3.25	3.375	4.125
	3.125	3.875	2.375	3.625	4.0	3.25	2.875	3.5	3.25	2.875	3.0	2.5	3.75	1.25	2.125	2.625	2.875	1.875	3.375
	2.75	3.5	2.75	2.875	3.5	3.75	3.25	2.5	3.0	2.0	2.375	2.125	2.5	2.875	2.5	3.0	2.625	2.0	2.5
	2.875	4.125	3.625	2.375	2.375	4.0	2.75	2.75	2.75	3.0	2.5	3.25	4.0	3.5	3.5	2.25	2.25	2.75	2.5
	2.75	2.625	3.25	3.75	3.5	2.5	2.75	3.0	2.75	2.875	2.125	2.125	2.5	2.0	3.0	2.375	2.375	1.5	3.375
	2.25	2.25	3.25	4.125	3.25	3.625	2.375	2.875	3.0	3.0	2.875	3.75	2.375	1.625	3.5	3.625	3.0	2.25	2.125
	2.625	3.25	3.0	2.375	2.875	3.125	2.875	3.25	3.25	2.25	2.5	3.375	2.5	2.625	1.75	2.625	2.875	2.25	2.0
	2.75	2.875	3.25	4.25	2.875	3.25	2.875	4.25	2.625	2.5	2.125	3.375	3.5	3.5	2.0	2.75	2.875	2.625	2.5
	3.375	2.25	3.25	2.5	3.25	3.375	2.375	2.25	2.5	2.625	3.75	2.125	2.625	3.25	3.625	2.875	2.875	2.125	3.125
	3.25	2.5	2.875	3.0	3.0	3.25	2.625	3.375	2.5	2.5	4.0	2.5	3.125	4.0	2.875	2.375	3.75	1.75	2.625
Averages	2.804	3.062	3.151	3.066	3.145	3.041	2.904	2.933	2.712	2.634	2.708	2.629	3.145	2.912	2.678	2.783	2.800	2.420	2.691

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	3.50	1.3779	B¹	4.25	1.6732	B¹	4.500	1.7716	B¹	3.875	1.5255	B¹	4.875	1.9192	B¹	4.500	1.7716
	B²	4.125	1.6240	B²	4.00	1.5748	B²	4.375	1.7224	B²	3.750	1.4763	B²	4.125	1.6240	B²	3.875	1.5255
	B³	5.00	1.9685	B³	4.00	1.5748	B³	3.800	1.3779	B³	4.000	1.5748	B³	3.750	1.4763	B³	3.625	1.4271
																B⁴	4.125	1.6240
Highest	....	5.00	1.9685	....	4.25	1.6732	....	4.500	1.7716	....	4.000	1.5748	....	4.875	1.9192	....	4.500	1.7716
Minimum measurements.	B¹	2.00	0.7874	B¹	2.00	0.7874	B¹	2.50	0.9842	B¹	1.500	0.5905	B¹	2.25	0.8858	B¹	1.875	0.7381
	B²	2.25	0.8858	B²	2.50	0.9842	B²	2.25	0.8858	B²	1.875	0.7381	B²	1.25	0.4921	B²	2.125	0.8366
	B³	2.00	0.7874	B³	2.00	0.7874	B³	2.00	0.7874	B³	1.375	0.5413	B³	1.50	0.5905	B³	1.500	0.5905
																B⁴	1.375	0.5413
Lowest	....	2.00	0.7874	....	2.00	0.7874	....	2.00	0.7874	....	1.375	0.5413	....	1.25	0.4921	....	1.375	0.5413
Average measurements.	B¹	2.804	1.1039	B¹	3.066	1.2070	B¹	2.904	1.1433	B¹	2.634	1.0488	B¹	3.145	1.2381	B¹	2.783	1.0956
	B²	3.062	1.2055	B²	3.145	1.2381	B²	2.933	1.1547	B²	2.708	1.0661	B²	2.912	1.1464	B²	2.800	1.1023
	B³	3.151	1.2405	B³	3.041	1.1972	B³	2.712	1.0677	B³	2.629	1.0350	B³	2.678	1.0543	B³	2.420	0.9527
Average	....	3.005	1.1830	....	3.084	1.2141	....	2.849	1.1216	....	2.663	1.0484	....	2.911	1.1460	.....	2.667	1.0499
Measurements above average	....	41		....	51		....	44		....	38		....	48		.....	48	
Measurements below average	....	49		....	39		....	46		....	52		....	42		.....	66	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	HAMPSHIRE.							OXFORDDOWN.							
Catalogue number of samples..	162.				163.			64. SHOULDER.			64. SIDE.			64. HIP.	
Length of fiber in crimp.....	2¼ inches.				2⅛ inches.			3 inches.			2½ inches.			2⅜ inches.	
Number of crimps per inch....	——				——			——			——			——	
Number of section.....	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².
Actual measurement in centimillimeters.	3.5	3.125	3.75	3.625	2.75	2.875	2.5	4.66	5.0	5.33	3.33	5.0	5.33	5.33	6.0
	3.125	3.875	4.25	3.5	3.25	4.375	5.375	4.66	4.66	5.0	4.0	3.33	5.0	3.33	4.0
	4.0	3.5	3.875	3.5	2.875	2.75	2.375	4.0	4.0	4.66	4.0	3.33	4.33	5.66	5.33
	2.875	3.5	3.0	3.75	2.375	3.875	2.5	4.0	5.0	5.33	5.33	5.0	3.66	4.66	6.66
	2.875	4.25	2.125	3.75	3.125	2.75	3.25	4.33	5.33	4.66	3.66	5.0	4.0	4.66	6.33
	2.625	3.875	3.25	3.0	2.25	2.875	4.5	4.0	4.66	4.33	4.66	3.66	6.33	5.66	5.66
	2.75	4.75	3.25	3.625	2.375	2.5	2.0	3.66	4.66	4.0	5.66	5.33	6.33	5.66	4.0
	3.625	3.5	3.25	3.5	2.75	2.625	4.75	4.33	5.33	4.66	3.33	5.0	2.66	4.33	5.33
	4.0	3.375	4.625	2.25	3.0	3.0	2.5	4.0	4.0	4.66	4.0	4.33	4.0	5.66	4.0
	3.5	4.25	1.75	2.375	3.125	3.0	3.875	4.66	5.66	4.66	3.66	4.66	5.0	4.66	4.0
	3.25	3.75	3.375	2.125	3.375	3.125	3.5	4.66	5.0	4.33	4.33	4.33	4.33	4.66	5.66
	2.875	3.5	3.5	2.375	3.25	2.875	1.875	3.66	4.66	4.66	4.0	5.33	3.66	5.33	4.5
	3.125	2.75	4.25	2.5	4.25	4.5	3.25	3.66	4.66	3.66	2.33	4.66	3.0	5.33	5.33
	2.375	3.75	4.0	4.5	2.875	2.625	2.75	4.0	4.66	3.66	5.0	4.66	5.0	4.33	6.66
	2.0	2.5	2.75	3.75	2.75	3.0	2.5	3.33	4.66	4.66	4.0	5.33	5.33	4.66	4.33
	3.5	3.125	3.875	2.125	3.75	3.25	4.25	4.33	4.33	4.0	6.33	4.0	4.0	5.166	5.66
	3.375	3.75	3.25	1.75	4.75	3.375	3.125	4.66	4.5	4.66	5.33	4.66	4.0	4.33	5.0
	3.875	3.5	4.0	2.75	3.375	3.5	3.5	4.66	4.33	4.0	4.66	5.0	3.33	5.166	4.66
	3.125	3.5	2.75	3.75	4.125	2.0	2.5	4.0	4.66	4.0	5.0	4.0	5.33	4.66	5.66
	3.25	3.5	3.5	1.625	3.25	3.375	5.625	5.33	4.66	4.0	3.833	4.0	4.0	5.33	4.5
	3.25	5.375	4.0	3.5	2.875	2.375	4.25	5.33	3.66	4.0	3.33	4.0	4.66	5.33	4.66
	2.375	3.75	3.375	1.875	2.75	3.125	3.125	5.33	4.66	4.0	4.0	4.0	4.33	5.66	4.66
	3.5	3.25	3.25	2.875	4.0	3.75	3.375	4.33	6.0	6.0	4.5	6.33	5.0	5.33	4.5
	3.625	3.625	3.625	3.25	4.0	3.375	2.875	4.33	4.0	6.0	4.0	4.63	4.33	5.833	4.5
	3.875	3.125	3.5	3.25	2.5	4.625	4.0	5.33	6.33	4.66	4.0	4.66	5.0	5.33	5.0
	3.25	2.375	3.75	3.0	3.125	4.875	2.5	4.0	4.5	4.66	3.33	5.66	3.66	5.5	5.0
	3.5	4.5	3.75	2.5	3.375	4.375	4.125	5.33	4.5	5.0	5.33	3.33	4.66	3.33	5.0
	2.875	4.375	3.625	2.0	2.875	3.625	2.25	4.33	4.0	4.0	3.66	3.66	4.0	6.66	5.0
	3.375	4.0	3.125	3.25	3.125	3.875	4.0	4.33	4.66	4.0	3.66	4.5	4.66	5.33	5.166
	2.625	2.0	3.875	3.375	3.125	4.0	3.25	4.0	4.833	4.33	4.0	3.33	2.833	5.166	4.5
Averages	3.195	3.600	3.475	2.966	3.179	3.341	3.341	4.388	4.718	4.522	4.208	4.491	4.391	5.068	5.008

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	4.0	1.5748	B¹	4.75	1.8700	B¹	5.33	2.0984	B¹	6.33	2.4921	B¹	6.66	2.6220
	B²	5.375	2.1161	B²	4.875	1.9192	B²	6.00	2.3622	B²	6.33	2.4921	B²	6.66	2.6220
	B³	4.625	1.8197	B³	5.625	2.2145	B³	6.00	2.3622	B³	6.33	2.4921	.....	.....	.....
	B⁴	4.5	1.7716	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Highest.....	.....	5.375	2.1161	.....	5.625	2.2145	.....	6.00	2.3622	.....	6.33	2.4921	.....	6.66	2.6220
Minimum measurements.	B¹	2.0	0.7874	B¹	2.25	0.8858	B¹	3.33	1.3110	B¹	2.33	0.9173	B¹	3.33	1.3110
	B²	2.0	0.7874	B²	2.0	0.7874	B²	3.66	1.4409	B²	3.33	1.3110	B²	3.33	1.3110
	B³	1.75	0.6889	B³	1.875	0.7381	B³	3.66	1.4409	B³	2.833	1.1153	.....	.....	.....
	B⁴	1.625	0.6397	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lowest	.....	1.625	0.6397	.....	1.875	0.7381	.....	3.33	1.3110	.....	2.33	0.9173	.....	3.33	1.3110
Average measurements..	B¹	3.195	1.2578	B¹	3.179	1.2515	B¹	4.388	1.7275	B¹	4.208	1.6566	B¹	5.068	1.9952
	B²	3.600	1.4173	B²	3.341	1.3153	B²	4.718	1.8574	B²	4.491	1.7681	B²	5.008	1.9716
	B³	3.475	1.3681	B³	3.341	1.3153	B³	4.522	1.7803	B³	4.391	1.7287	.....	.....	.....
	B⁴	2.966	1.1677	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Average	.....	3.309	1.3027	.....	3.287	1.2940	.....	4.542	1.7881	.....	4.363	1.7177	.....	5.038	1.9834
Measurements above average..	.....	66		.....	36		.....	47		.....	41		.....	31	
Measurements below average..	.....	54		.....	54		.....	43		.....	49		.....	29	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	OXFORDDOWN.														
Catalogue number of samples	64. BELLY.			65. SHOULDER.		65. SIDE.		65. HIP.			65. BELLY.		64. SHOULDER.		
Length of fiber in crimp	1¾ inches.			1½ inches.		2 inches.		1¾ inches.			2½ inches.		2½ inches.		
Number of crimps per inch	——			——		——		——			——		——		
Number of section	B¹.	B².	B³.	B¹.	B².	B¹.	B².	B¹.	B².	B³.	B¹.	B².	B¹.	B².	B³.
Actual measurement in centimillimeters.	4.33	4.66	4.33	4.33	3.33	4.0	4.0	3.0	4.0	3.66	4.0	4.0	3.33	3.66	3.33
	5.33	5.0	4.66	3.33	3.33	5.33	4.66	5.66	3.0	4.66	3.66	5.33	4.0	3.33	2.33
	4.33	4.66	5.33	3.66	3.33	4.33	4.0	3.33	4.0	3.66	4.0	6.0	3.33	3.66	4.0
	4.0	4.66	4.0	3.66	4.33	4.66	3.33	3.0	3.66	3.66	4.0	3.66	2.66	4.0	2.66
	4.0	4.0	5.0	4.66	4.0	3.0	5.0	4.0	3.33	5.66	3.0	4.66	4.0	3.33	3.33
	4.33	4.66	6.0	5.66	4.0	4.0	5.33	3.33	4.0	5.33	5.0	4.66	3.33	3.66	3.33
	4.0	3.66	4.66	4.33	4.0	4.66	4.66	3.66	2.66	4.33	3.0	4.0	4.66	5.0	5.33
	4.0	3.66	4.66	4.0	4.0	5.33	5.33	2.66	5.33	5.33	4.0	4.0	4.0	3.33	4.0
	3.66	3.33	5.0	4.0	3.33	3.33	2.66	3.33	4.0	4.0	3.33	3.66	3.66	4.0	3.33
	4.33	4.0	3.0	3.66	2.66	3.0	4.0	4.33	3.33	3.33	3.33	4.0	4.66	3.66	3.33
	3.33	5.0	4.0	5.0	4.0	4.33	3.33	6.33	3.33	3.33	3.33	3.66	4.0	2.66	3.66
	3.66	5.0	3.66	5.33	4.33	3.66	4.33	5.33	3.66	3.33	3.0	4.66	4.66	2.33	4.0
	3.66	3.33	4.33	4.0	3.0	3.66	4.0	3.33	3.66	3.33	2.66	3.66	4.0	3.33	4.0
	4.66	5.33	5.0	4.0	5.33	2.66	6.0	4.33	4.0	6.0	4.0	3.0	3.66	3.0	4.0
	4.0	4.0	5.33	5.0	5.66	4.0	4.66	4.66	4.66	4.66	3.33	2.66	4.0	2.66	4.0
	4.0	4.0	4.0	4.0	3.33	3.66	4.0	2.66	6.0	4.0	3.0	3.0	3.66	5.0	4.0
	3.66	3.66	4.0	4.0	3.66	3.66	4.66	3.33	3.33	5.33	3.33	4.0	3.0	3.66	3.33
	3.33	4.66	2.66	3.33	5.0	2.66	3.33	3.33	6.0	5.33	3.33	3.33	2.66	3.33	4.0
	4.66	4.66	5.33	4.66	3.66	4.33	3.66	5.0	4.66	3.66	4.33	4.66	3.33	3.166	4.33
	4.66	4.0	4.33	3.0	2.33	3.33	4.66	5.33	3.33	5.0	4.0	4.33	3.66	4.33	3.66
	4.0	5.33	4.66	5.0	5.0	3.66	3.66	5.0	4.33	5.33	4.66	3.0	3.33	3.33	3.66
	3.33	4.33	4.66	3.0	4.33	4.33	3.0	3.0	4.0	3.66	4.0	2.66	4.0	3.66	2.0
	4.0	5.0	5.33	2.0	5.33	3.33	3.66	3.33	4.0	6.66	3.833	4.0	3.66	4.33	4.0
	3.33	3.33	3.33	4.66	3.0	3.0	3.66	4.0	5.33	4.66	4.33	4.0	3.833	4.0	4.5
	4.33	4.66	4.0	5.66	2.66	3.0	2.66	5.33	3.33	3.33	2.66	2.66	3.166	4.66	4.66
	4.33	4.66	4.0	3.0	4.0	3.33	4.0	5.0	2.66	3.66	2.66	3.33	3.33	3.33	3.33
	4.0	4.66	5.0	3.33	4.0	4.33	5.33	3.33	3.66	4.0	3.0	2.66	3.66	2.5	3.5
	4.0	3.0	4.33	5.0	3.66	5.33	4.0	3.33	2.66	3.66	3.0	4.0	3.66	3.66	3.33
	4.0	4.0	4.0	4.33	3.66	4.0	3.66	3.0	3.0	5.0	3.66	3.33	4.33	3.33	2.0
	4.0	4.66	2.66	3.66	5.33	4.0	4.333	5.0	3.0	3.0	2.5	3.0	4.0	3.33	3.66
Averages	4.022	4.322	4.377	3.922	3.963	3.796	4.035	3.841	3.897	4.284	3.464	3.785	3.774	3.574	3.653

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements	B¹	4.66	1.8346	B¹	5.66	2.2283	B¹	5.33	2.0984	B¹	5.63	2.4921	B¹	4.66	1.8346	B¹	5.0	1.9685
	B²	5.33	2.0984	B²	5.66	2.2283	B²	6.66	2.6220	B²	6.0	2.3622	B²	6.0	2.3621	B²	5.0	1.9685
	B³	6.0	2.3622	...	.....	.....	...	.....	.....	B³	6.66	2.6220	...	.....	.....	B³	5.33	2.0984
Highest	.....	6.0	2.3622	...	5.66	2.2283	...	6.66	2.6220	.....	6.66	2.6220	...	6.0	2.3621	.....	5.33	2.0984
Minimum measurements	B¹	3.0	1.1811	B¹	2.0	0.7874	B¹	2.66	1.0472	B¹	2.66	1.0472	B¹	2.66	1.0472	B¹	2.66	1.0472
	B²	3.0	1.1811	B²	2.66	1.0472	B²	2.66	1.0472	B²	2.66	1.0472	B²	2.66	1.0472	B²	3.33	0.9173
	B³	2.66	1.0472	...	.....	.....	...	.....	.....	B³	2.66	1.0472	...	.....	.....	.....	2.0	0.7874
Lowest	.....	2.66	1.0472	...	2.0	0.7874	...	2.66	1.0472	.....	2.66	1.0472	...	2.66	1.0472	.....	2.0	0.7874
Average measurements	B¹	4.022	1.5834	B¹	3.922	1.5440	B¹	3.796	1.4944	B¹	3.841	1.5122	B¹	3.464	1.3637	B¹	3.774	1.4858
	B²	4.322	1.7015	B²	3.963	1.5602	B²	4.035	1.5882	B²	3.897	1.5342	B²	3.785	1.4901	B²	3.574	1.4070
	B³	4.377	1.7232	...	.....	.....	...	.....	.....	.....	4.284	1.6866	...	.....	.....	B³	3.653	1.4381
Average	.....	4.240	1.6693	...	3.942	1.5519	...	3.915	1.5413	.....	4.007	1.5775	...	3.624	1.4267	.....	3.667	1.4436
Measurements above average	.....	10		...	23		...	21		.....	29		...	21		.....	35	
Measurements below average	.....	11		...	27		...	29		.....	11		...	29		.....	56	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	OXFORDDOWN.																	
Catalogue number of samples..	66. SIDE.				66. HIP.			66. BELLY.			67. SHOULDER.			67. SIDE.			67. HIP.		
Length of fiber in crimp	3⅝ inches.				3¾ inches.			2½ inches.			3 inches.			2¾ inches.			2¾ inches.		
Number of crimps per inch	——				——			——			——			——			——		
Number of section.....	B^1.	B^2.	B^3.	B^4.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.
Actual measurement in centimillimeters.	3.33	4.66	3.66	2.66	5.0	4.66	4.66	3.0	3.0	4.0	5.33	5.33	4.66	6.0	6.66	4.0	5.66	6.0	3.66
	3.0	3.66	3.66	3.33	4.33	3.66	4.66	3.33	3.33	3.33	5.33	6.0	6.33	6.0	5.33	3.66	3.33	5.33	4.33
	3.66	4.0	5.33	2.66	2.66	4.66	4.33	2.66	4.0	3.66	5.33	6.0	5.33	7.0	5.66	5.33	4.0	3.66	4.33
	4.0	2.66	4.33	3.33	2.66	4.0	5.33	4.0	3.0	3.66	5.0	3.66	4.66	5.33	3.66	6.0	5.66	4.66	4.66
	4.0	3.66	3.66	3.0	5.0	4.0	3.33	3.33	5.33	4.0	7.33	4.0	5.33	4.66	5.33	7.66	4.33	5.00	5.33
	2.66	4.66	4.0	3.66	3.33	3.33	4.66	4.0	4.33	3.66	4.33	5.33	5.0	4.33	4.66	6.0	3.33	4.66	6.66
	4.0	4.0	5.33	4.33	3.33	3.33	4.66	3.33	3.66	4.33	5.0	4.0	4.0	4.66	4.0	5.66	5.33	6.66	5.0
	4.0	4.0	3.33	4.66	2.66	4.66	4.0	3.33	4.0	4.0	6.66	4.66	4.0	5.66	3.33	5.0	4.66	4.66	4.66
	3.66	3.33	6.0	4.66	2.66	5.0	2.66	4.0	3.33	3.33	2.66	4.0	4.0	5.33	3.66	5.0	3.33	4.66	5.33
	4.33	4.0	4.66	3.66	4.0	4.33	3.33	3.66	4.33	3.66	5.33	4.33	5.33	4.0	5.0	5.66	6.0	4.0	4.66
	3.66	4.0	3.33	4.66	3.66	3.33	5.0	3.33	3.66	3.33	5.0	5.33	4.66	5.33	7.0	4.0	4.33	4.0	6.0
	3.33	3.33	4.0	5.0	4.0	4.66	4.66	4.0	3.66	3.33	5.33	7.0	6.66	4.0	6.33	5.33	5.0	4.33	4.66
	4.66	4.0	3.33	4.66	4.0	4.0	2.66	3.33	4.0	4.66	5.33	2.66	5.33	5.33	4.66	6.33	4.33	4.33	3.33
	5.33	3.66	5.33	5.33	3.66	4.0	2.66	3.33	2.66	3.33	5.33	5.33	4.66	5.33	5.0	4.66	4.0	4.0	5.0
	4.0	4.66	5.0	4.33	3.33	4.66	5.33	3.33	4.33	2.5	3.33	4.0	5.0	4.33	4.33	6.0	5.33	4.0	5.66
	3.33	3.0	3.33	3.0	4.0	3.66	4.66	3.66	4.0	3.0	4.0	2.66	2.66	3.66	5.33	7.33	4.66	4.33	5.0
	3.66	4.33	4.0	3.66	4.66	3.33	6.0	3.66	3.33	3.66	4.66	6.33	4.0	4.33	4.66	5.66	6.66	5.0	4.0
	4.0	3.33	4.33	4.0	3.66	3.33	2.66	3.66	3.33	3.66	3.33	5.33	4.0	4.66	4.33	4.33	5.33	6.66	5.66
	5.33	3.33	4.66	6.0	5.0	4.0	2.0	4.0	4.0	2.66	6.0	5.33	4.66	5.66	3.33	6.66	5.0	5.33	5.66
	4.33	3.33	4.0	3.66	4.33	4.0	3.33	4.0	4.0	4.0	4.66	5.33	6.0	5.66	5.33	5.33	5.33	5.33	3.66
	5.33	4.0	4.0	3.66	5.33	4.0	5.33	4.0	4.0	3.66	4.66	5.33	5.33	6.166	4.66	5.33	3.66	5.33	5.33
	4.0	4.5	4.33	5.0	5.33	4.0	2.33	4.166	3.33	3.33	5.0	4.33	3.33	6.166	5.33	4.0	4.66	4.0	3.33
	3.66	4.66	3.33	3.33	4.66	4.66	4.0	3.0	3.33	2.33	4.0	5.0	5.0	6.166	6.33	4.0	6.0	5.5	2.833
	4.66	4.833	4.0	3.66	5.0	3.0	5.33	3.5	3.66	3.166	5.33	3.0	4.0	4.33	5.33	5.0	5.66	4.66	4.0
	4.0	3.33	4.66	3.66	3.33	2.66	2.66	3.33	3.66	3.833	4.66	6.0	4.166	6.5	3.66	5.33	4.833	3.166	4.33
	4.0	4.166	4.5	3.166	2.66	4.0	5.0	4.0	3.33	2.33	3.833	5.833	4.5	5.0	4.5	4.33	6.5	4.166	7.0
	4.0	3.166	3.33	5.0	4.66	3.33	2.66	3.833	4.166	2.5	4.166	5.0	4.0	4.66	4.0	4.0	4.5	5.33	5.33
	3.66	3.166	4.0	5.0	4.0	3.33	4.0	4.0	4.0	4.0	5.33	4.0	4.66	4.66	5.33	4.5	4.5	5.33	4.66
	4.5	3.66	5.66	3.833	4.0	4.0	4.833	4.0	3.66	3.33	3.33	4.33	4.66	5.66	5.66	5.33	4.0	6.0	4.66
	4.33	3.33	4.0	3.33	3.66	4.66	2.66	3.33	4.0	3.33	6.66	3.0	5.33	5.33	5.66	4.33	4.5	4.0	6.166
Averages	4.013	3.813	4.236	3.996	3.952	3.941	3.979	3.603	3.747	3.452	4.873	4.781	4.708	5.263	4.935	5.191	4.813	4.469	4.862

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reductions:																		
Maximum measurements.	B^1	5.33	2.0984	B^1	5.33	2.0984	B^1	4.166	1.6401	B^1	7.33	2.8858	B^1	7.0	2.7559	B^1	6.66	2.6220
	B^2	4.833	1.9027	B^2	5.0	1.9685	B^2	5.33	2.0984	B^2	7.0	2.7559	B^2	7.0	2.7559	B^2	6.66	2.6220
	B^3	6.0	2.3622	B^3	6.0	2.3622	B^3	4.66	1.8346	B^3	6.66	2.6220	B^3	7.66	3.0157	B^3	7.0	2.7559
	B^4	6.0	2.3622	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Highest.....	.....	6.0	2.3622	.....	6.0	2.3622	.....	5.33	2.0984	.....	7.33	2.8858	....	7.66	3.0157	.....	7.0	2.7559
Minimum measurements.	B^1	2.66	1.0472	B^1	2.66	1.0472	B^1	2.66	1.0472	B^1	2.66	1.0472	B^1	3.66	1.4409	B^1	3.33	1.3110
	B^2	2.66	1.0472	B^2	2.66	1.0472	B^2	2.66	1.0472	B^2	2.66	1.0472	B^2	3.33	1.3110	B^2	3.166	1.2464
	B^3	3.33	1.3110	B^3	2.0	0.7874	B^3	2.33	0.9173	B^3	2.66	1.0472	B^3	3.66	1.4409	B^3	3.33	1.3110
	B^4	2.66	1.0472	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lowest	.....	2.66	1.0472	.....	2.0	0.7874	.....	2.33	0.9173	.....	2.66	1.0472	....	3.33	1.3110	.....	3.166	1.2464
Average measurements..	B^1	4.013	1.5799	B^1	3.952	1.5559	B^1	3.603	1.4185	B^1	4.873	1.9185	B^1	5.263	2.0720	B^1	4.813	1.8948
	B^2	3.813	1.5011	B^2	3.941	1.5515	B^2	3.747	1.4751	B^2	4.781	1.8822	B^2	4.935	1.9429	B^2	4.469	1.7594
	B^3	4.236	1.6677	B^3	3.979	1.5665	B^3	3.452	1.3590	B^3	4.708	1.8535	B^3	5.191	2.0436	B^3	4.862	1.9141
	B^4	3.996	1.5732	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	.....	.....	.....	.....	.....
Average.....	.....	4.014	1.5803	.....	3.957	1.5578	.....	3.600	1.4173	.....	4.787	1.8846	....	5.129	2.0192	.....	4.714	1.8559
Measurements above average..	.....	42		.....	51		.....	51		.....	45		....	47		.....	41	
Measurements below average..	.....	78		.....	36		.....	39		.....	45		....	43		.....	49	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	OXFORDDOWN.																	
Catalogue number of samples	67. BELLY.			107.						135.						150.		
Length of fiber in crimp	3 inches.			——						——						2½ inches.		
Number of crimps per inch	——			——						——						——		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.	B¹.	B².	B³.
Actual measurement in centimillimeters.	5.33	4.0	5.0	3.75	4.5	3.25	3.5	4.75	2.5	2.5	3.5	3.75	4.5	4.0	3.5	5.5	5.375	3.5
	4.66	5.33	5.66	3.5	3.5	3.75	3.5	4.5	3.5	2.25	2.5	3.5	3.75	4.5	4.0	5.625	6.0	7.125
	5.33	4.66	4.33	3.75	2.5	4.0	3.25	4.5	4.0	3.75	3.5	4.75	2.75	4.25	3.25	4.0	6.5	5.375
	4.66	4.66	5.33	3.5	5.75	4.5	3.5	4.0	4.5	2.75	2.5	4.25	4.5	4.75	4.0	3.5	4.75	4.0
	4.0	4.0	4.0	3.25	3.5	3.5	3.0	4.75	4.5	3.25	4.0	3.5	4.25	3.25	4.25	5.125	4.0	3.625
	5.33	5.33	5.33	4.0	3.25	5.0	3.25	5.0	5.0	2.5	3.0	4.0	3.0	4.75	2.0	6.75	4.625	3.5
	5.66	4.66	4.66	3.0	4.5	3.5	3.75	3.0	4.5	2.5	3.75	3.5	4.25	4.25	4.0	3.5	3.375	4.0
	4.66	6.0	5.66	2.5	3.5	4.75	4.0	2.0	4.5	3.25	2.75	3.5	4.0	3.0	4.0	2.875	4.5	3.25
	3.33	3.33	4.33	2.5	3.5	3.75	5.0	3.5	4.0	3.5	4.0	4.0	4.75	3.0	5.25	5.25	5.5	3.5
	5.66	5.0	4.0	3.75	3.0	4.0	4.25	4.75	4.5	2.75	3.25	4.0	2.5	4.5	4.0	3.5	5.5	4.125
	4.66	5.0	6.0	3.5	4.5	3.5	5.25	3.25	5.25	2.25	3.5	3.0	3.0	4.0	5.0	4.25	4.375	6.0
	4.66	5.33	4.0	4.0	4.5	3.5	4.25	3.5	2.0	2.75	3.75	2.5	3.0	4.0	3.75	5.0	3.375	4.375
	4.66	5.0	5.0	4.0	4.25	4.25	4.5	4.5	2.25	3.25	4.5	3.0	4.5	4.5	4.5	4.0	4.375	3.25
	4.0	3.66	7.66	4.25	3.5	3.0	4.0	4.78	4.0	3.25	3.5	3.0	4.0	3.25	5.25	4.875	6.5	3.125
	4.66	4.66	5.0	6.0	4.25	3.5	3.5	4.5	4.75	4.0	3.75	4.0	3.75	3.5	4.5	5.625	4.5	5.625
	5.33	6.66	4.66	3.75	5.0	3.75	5.0	4.5	4.5	4.5	4.5	3.5	4.25	3.0	3.25	3.625	2.875	5.625
	4.66	5.33	4.66	4.25	3.25	3.5	4.75	2.75	3.0	3.25	2.0	3.0	4.5	3.75	5.25	2.875	4.375	4.5
	5.66	5.33	6.0	4.5	3.5	2.75	2.5	3.0	4.0	3.5	3.0	4.5	4.5	5.0	4.0	4.25	4.5	4.875
	4.0	5.33	4.0	3.25	4.5	3.0	3.5	4.25	3.0	3.25	4.0	3.0	3.25	3.5	4.5	4.25	5.75	
	4.66	5.33	5.0	4.5	4.0	3.25	2.75	4.5	4.25	3.5	4.5	4.0	4.0	3.25	4.0	7.0	7.125	4.625
	6.0	4.66	3.66	3.75	2.5	4.5	4.5	4.5	3.25	2.75	3.5	4.0	3.0	3.25	4.5	6.0	6.0	6.5
	4.33	6.0	5.0	2.75	4.25	3.5	4.75	4.5	3.5	3.25	2.5	3.75	3.5	4.0	3.25	5.0	4.0	5.0
	5.33	5.33	4.66	3.25	4.0	4.0	3.0	5.0	4.0	3.5	4.25	2.5	3.5	3.5	3.75	4.25	5.0	5.375
	4.33	5.833	6.0	4.0	3.5	4.5	2.75	4.5	4.75	3.75	3.5	4.0	3.5	4.0	3.25	3.75	4.375	4.25
	4.0	4.33	5.166	3.5	5.0	3.5	4.5	4.5	4.75	3.5	4.0	3.5	3.5	4.0	3.75	3.875	3.5	4.875
	5.33	5.33	4.33	3.5	4.0	2.5	5.0	4.5	4.0	3.5	4.0	4.25	4.25	3.75	2.75	4.875	6.75	5.5
	4.5	7.0	4.66	3.5	4.0	5.0	4.0	3.5	2.0	3.25	3.0	4.0	3.0	4.5	3.5	2.75	6.75	4.125
	4.5	3.66	5.166	3.5	3.25	3.5	3.25	3.75	4.5	3.0	4.0	4.0	4.5	3.75	3.25	3.25	5.75	5.125
	4.33	4.66	4.0	3.75	3.5	3.75	3.5	5.0	4.5	2.5	4.25	3.75	2.75	3.25	3.0	5.25	4.75	5.0
	4.0	4.66	5.33	3.5	3.75	3.5	3.0	2.5	3.5	3.0	4.0	4.0	5.0	3.0	2.5	3.875	6.25	6.125
Averages	4.740	5.113	4.941	3.350	3.616	3.691	3.858	3.891	3.853	3.141	3.289	3.691	3.791	3.825	3.825	4.655	4.983	4.787

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:												
Maximum measurements.	B¹	6.0	2.3622	B¹	4.5	1.7716	B¹	4.5	1.7716	B¹	7.0	2.7559
	B²	7.33	2.8858	B²	5.75	2.2637	B¹	4.5	1.7716	B¹	7.125	2.8051
	B³	7.66	3.0157	B³	5.0	1.9685	B³	4.75	1.8700	B¹	7.125	2.8051
	.....	.....	.....	B⁴	5.25	2.0669	B⁴	5.0	1.9685	.....	.....	.....
	.....	.....	.....	B⁵	5.0	1.9685	B⁵	5.0	1.9685	.....	.....	.....
	.....	.....	.....	B⁶	5.25	2.0669	B⁶	5.25	2.0669	.....	.....	.....
Highest	.....	7.66	3.0157	....	5.75	2.2637	....	5.25	2.0669	.....	7.125	2.8051
Minimum measurements.	B¹	3.33	1.3110	B¹	2.25	0.8858	B¹	2.25	0.8858	B¹	2.75	1.0826
	B²	3.33	1.3110	B²	2.0	0.7874	B²	2.0	0.7874	B²	2.875	1.1318
	B³	3.66	1.4409	B³	2.5	0.9842	B³	2.5	0.9842	B³	3.25	1.2795
	.....	.....	.....	B⁴	2.5	0.9842	B⁴	2.5	0.9842	.....	.....	.....
	.....	.....	.....	B⁵	2.0	0.7874	B⁵	3.0	1.1811	.....	.....	.....
	.....	.....	.....	B⁶	2.0	0.7874	B⁶	2.0	0.7874	.....	.....	.....
Lowest	.....	3.33	1.3110	....	2.0	0.7874	....	2.0	0.7874	.....	2.75	1.0826
Average measurements.	B¹	4.740	1.8661	B¹	3.350	1.3976	B¹	3.141	1.2366	B¹	4.650	1.8307
	B²	5.113	2.0129	B²	3.616	1.4236	B²	3.289	1.3779	B²	4.983	1.9618
	B³	4.941	1.9452	B³	3.691	1.4531	B³	3.691	1.4531	B³	4.787	1.8848
	.....	.....	.....	B⁴	3.858	1.5188	B⁴	3.791	1.4925	.....	.....	.....
	.....	.....	.....	B⁵	3.691	1.5318	B⁵	3.825	1.5059	.....	.....	.....
	.....	.....	.....	B⁶	3.653	1.5169	B⁶	3.825	1.5059	.....	.....	.....
Average	.....	4.931	1.9413	....	3.743	1.4736	....	3.029	1.4283	.....	4.806	1.8921
Measurements above average	.....	44		....	97		....	89		.....	44	
Measurements below average	.....	46		....	83		....	91		.....	46	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	OXFORDDOWN.															
Catalogue number of samples..	151.			152.				153.					154.				
Length of fiber in crimp.....	2 inches.			2¾ inches.				2¾ inches.					2⅞ inches.				
Number of crimps per inch....	——			——				——					——				
Number of section.....	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.	B⁵.
Actual measurement of centimillimeters.	4.25	4.875	4.625	5.0	3.75	3.25	4.75	2.875	3.25	2.875	4.0	3.875	3.125	4.625	5.0	5.0	4.75
	3.0	3.875	6.5	4.875	4.75	3.0	3.25	3.75	1.875	2.5	4.5	2.5	3.5	4.5	4.0	5.5	4.5
	5.25	3.625	3.0	4.0	3.75	5.25	4.125	3.75	3.25	4.0	3.5	5.125	4.5	4.875	4.5	2.875	4.25
	7.0	3.875	3.5	5.0	6.0	4.0	3.0	3.125	5.5	2.75	3.75	3.25	3.5	4.25	3.75	2.875	3.375
	5.0	3.625	2.125	3.25	3.25	5.25	5.375	3.5	3.375	3.875	4.25	3.25	4.625	6.0	5.125	4.375	3.625
	3.375	3.0	6.0	4.75	4.75	6.5	3.5	3.25	3.0	3.25	4.75	3.125	4.5	5.375	5.375	3.5	5.0
	2.875	2.625	2.75	4.25	5.0	4.75	6.375	4.125	3.75	4.0	3.75	4.0	6.75	3.125	4.25	6.75	4.875
	4.25	4.625	3.5	3.5	3.375	5.0	4.875	3.75	5.75	2.875	4.25	4.5	6.5	4.5	4.0	4.625	4.0
	2.5	2.75	2.375	3.375	4.0	4.375	4.125	3.5	3.25	3.125	4.25	3.0	4.625	4.25	5.5	5.875	3.875
	3.375	4.125	3.0	4.0	3.0	4.25	3.75	3.375	3.375	2.75	4.375	4.5	4.5	5.75	4.75	5.0	5.0
	5.875	7.625	3.75	4.625	5.5	4.75	6.0	3.5	3.75	2.875	3.125	3.625	3.5	4.875	3.875	4.875	4.25
	3.0	3.125	4.0	5.25	2.25	3.75	4.25	3.625	4.125	3.375	2.875	4.0	4.0	4.875	5.25	5.25	6.125
	4.375	3.375	2.0	3.625	6.875	4.75	3.625	4.25	4.25	3.25	3.75	5.75	6.0	3.5	5.5	4.0	5.625
	3.5	5.0	5.875	2.75	3.375	3.0	5.125	3.375	3.0	3.75	4.0	3.875	5.75	3.625	4.125	4.5	6.75
	3.625	2.875	2.875	5.625	4.75	6.0	3.625	2.5	4.5	3.25	4.25	3.75	2.75	3.75	4.375	5.125	4.5
	2.375	5.5	3.25	3.625	4.25	5.0	3.75	2.875	4.0	3.75	3.75	4.125	5.25	5.75	5.75	6.625	3.75
	2.5	3.5	4.875	3.75	3.75	2.375	2.375	5.0	5.0	3.75	4.25	3.0	4.875	4.875	5.0	4.0	6.125
	4.375	2.5	2.75	3.5	3.375	4.0	2.875	4.75	2.5	4.0	3.75	3.75	3.5	4.0	3.5	4.75	7.0
	2.5	3.375	2.875	3.75	4.75	3.5	5.25	4.375	3.75	3.5	3.625	3.625	4.125	3.75	4.75	6.375	3.875
	2.75	2.75	3.25	4.25	3.75	3.5	5.125	2.25	3.5	3.625	4.125	4.5	4.25	4.75	4.5	5.0	3.875
	2.75	3.875	4.5	4.125	5.5	6.0	3.75	3.5	3.5	3.375	3.125	5.625	4.125	4.5	3.875	4.5	4.625
	4.875	5.25	2.75	2.75	6.5	6.25	5.375	2.75	3.125	3.0	5.125	4.25	3.875	4.375	4.0	5.0	3.75
	6.375	4.375	4.0	3.125	5.125	4.0	3.875	2.875	4.125	5.125	4.125	4.0	4.0	5.5	5.75	3.125	6.0
	5.0	5.0	4.125	4.875	6.75	4.75	5.0	3.0	3.0	4.375	3.25	2.75	4.25	5.25	6.25	4.75	6.75
	4.875	3.75	2.25	5.0	5.0	3.875	5.125	4.0	4.0	4.5	3.5	2.125	4.625	5.375	6.25	4.625	3.375
	5.125	4.5	3.0	3.5	3.5	3.875	3.75	3.25	4.125	4.125	4.75	4.625	3.125	4.125	6.25	5.125	3.75
	3.25	5.0	5.5	4.75	3.125	3.75	4.125	3.5	3.625	3.875	3.75	4.375	6.75	4.625	3.5	6.125	4.75
	3.5	3.75	5.75	3.5	5.5	3.75	5.5	4.375	4.5	4.0	3.625	2.5	5.5	5.0	5.125	6.125	5.0
	3.375	2.625	2.0	3.5	4.875	4.25	3.75	4.0	4.0	3.125	4.0	3.0	3.5	4.621	4.5	4.125	4.875
	4.5	3.25	4.0	4.625	2.75	4.75	3.5	3.5	2.375	3.875	4.0	3.5	5.25	5.125	5.375	5.125	6.25
Averages.....	3.978	4.066	3.725	4.083	4.425	4.383	4.296	3.540	3.703	3.550	3.936	3.795	4.504	4.650	4.791	4.850	4.808

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:												
Maximum measurements.	B¹	7.0	2.7559	B¹	5.625	2.2145	B¹	5.0	1.9685	B¹	6.75	2.6574
	B²	7.625	3.0019	B²	6.875	2.7066	B²	5.75	2.2637	B²	6.0	2.3622
	B³	6.5	2.5590	B³	6.25	2.4606	B³	5.125	2.0177	B³	6.25	2.4606
	.....	.....	.....	B⁴	6.375	2.5098	B⁴	5.125	2.0177	B⁴	6.625	2.6082
	.....	.....	.....	.....	.....	.....	B⁵	5.75	2.2639	B⁵	7.0	2.7559
Highest.....	.....	7.625	3.0019	.....	6.875	2.7066	.....	5.75	2.2637	.....	7.0	2.7559
Minimum measurements.	B¹	2.5	0.9842	B¹	3.5	1.3779	B¹	2.25	0.8858	B¹	3.125	1.2303
	B²	2.5	0.9842	B²	3.0	1.1811	B²	1.875	0.7381	B²	3.125	1.2303
	B³	2.0	0.7874	B³	2.375	0.9350	B³	2.875	1.1318	B³	3.5	1.3779
	.....	.....	.....	B⁴	2.375	0.9350	B⁴	2.875	1.1318	B⁴	3.125	1.2303
	.....	.....	.....	.....	.....	.....	B⁵	2.5	0.9842	B⁵	3.375	1.3287
Lowest	.....	2.0	0.7874	.....	2.375	0.9350	.....	1.875	0.7381	.....	3.125	1.2303
Average measurements..	B¹	3.978	1.5661	B¹	4.083	1.6074	B¹	3.540	1.3936	B¹	4.504	1.7732
	B²	4.066	1.6007	B²	4.425	1.7421	B²	3.703	1.4578	B²	4.650	1.8307
	B³	3.725	1.4665	B³	4.383	1.7255	B³	3.550	1.3976	B³	4.791	1.8862
	.....	.....	.....	B⁴	4.296	1.6913	B⁴	3.936	1.5496	B⁴	4.850	1.9094
	.....	.....	.....	.....	.....	.....	B⁵	3.795	1.4940	B⁵	4.808	1.8929
Average.....	.....	3.923	1.5444	.....	4.046	1.5929	.....	3.704	1.4382	.....	4.720	1.8582
Measurements above average..	.....	37		.....	63		.....	79		.....	72	
Measurements below average..	.....	53		.....	57		.....	71		.....	78	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	OXFORDDOWN.																			
Catalogue number of samples..	155.				156.				157.				158.				159.			
Length of fiber in crimp	3 inches.				2½ inches.				2½ inches.				2½ inches.				3 inches.			
Number of crimps per inch ...	——				——				——				——				——			
Number of section	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B⁵.
Actual measurement in centimillimeters	3.5	4.25	3.125	2.5	4.375	4.0	3.625	4.75	4.375	4.375	3.25	4.5	4.125	4.0	5.25	5.375	3.625	4.25	3.875	2.5	3.75
	[illegible]	4.5	3.0	3.0	3.0	5.375	6.0	5.0	3.75	[illegible]	3.875	4.375	5.0	5.5	5.75	4.5	[illegible]	[illegible]	[illegible]	3.5	5.25
	4.625	3.5	2.875	4.25	4.75	4.5	4.0	5.25	4.0	3.5	4.75	4.75	4.875	[illegible]	[illegible]	4.75	[illegible]	4.0	4.625	3.75	3.75
	4.0	[illegible]	2.875	3.5	4.25	4.25	4.5	4.25	4.5	4.25	2.75	5.0	5.25	4.25	6.25	4.75	3.625	4.25	3.375	3.75	4.375
	[illegible]	3.5	4.5	3.5	4.375	4.0	3.75	4.75	3.125	4.125	2.75	[illegible]	5.25	4.75	4.875	5.25	4.25	3.625	2.625	4.875	3.875
	3.25	3.375	3.75	2.5	4.25	4.25	4.0	4.25	4.75	3.75	3.0	3.75	5.25	4.25	4.375	4.0	4.25	3.75	4.0	4.0	4.5
	4.5	5.0	4.5	3.875	3.5	3.25	4.375	5.25	4.75	3.5	2.0	[illegible]	4.25	4.25	5.25	[illegible]	4.25	3.75	5.0	4.25	3.875
	[illegible]	4.25	3.375	1.75	[illegible]	5.0	6.0	5.0	4.0	[illegible]	3.5	[illegible]	3.75	4.25	[illegible]	[illegible]	3.5	4.75	3.0	4.25	3.875
	[illegible]	4.0	3.5	4.0	4.5	3.5	4.5	4.5	3.25	4.0	4.0	4.125	4.0	4.5	[illegible]	[illegible]	4.0	4.75	[illegible]	4.5	4.25
	[illegible]	3.75	3.25	2.0	4.375	4.0	4.5	5.25	4.125	4.0	4.75	[illegible]	4.375	5.5	4.5	4.125	4.5	3.5	3.75	4.75	5.25
	[illegible]	3.5	3.75	[illegible]	4.125	4.0	[illegible]	6.125	3.0	3.5	3.875	4.875	4.125	4.75	4.125	4.0	4.75	4.5	4.125	2.5	4.25
	3.5	[illegible]	[illegible]	[illegible]	4.0	3.75	4.5	3.0	4.0	3.125	3.375	4.875	4.375	5.0	4.75	4.375	3.75	4.0	4.5	3.75	4.375
	3.0	3.5	[illegible]	[illegible]	[illegible]	3.25	4.0	4.5	4.125	2.5	4.0	3.5	5.125	4.25	5.0	4.0	4.25	2.5	4.0	5.25	4.375
	[illegible]	4.0	1.5	3.375	[illegible]	4.25	5.25	3.875	[illegible]	4.0	[illegible]	[illegible]	4.5	3.625	4.25	4.5	4.0	4.0	3.5	4.25	4.0
	[illegible]	4.0	[illegible]	[illegible]	[illegible]	6.0	4.0	4.875	[illegible]	2.5	4.0	4.125	4.0	4.0	4.5	5.375	2.375	4.875	4.625	4.25	4.125
	[illegible]	2.5	2.0	[illegible]	[illegible]	5.0	[illegible]	5.5	[illegible]	4.125	4.25	4.5	4.75	[illegible]	5.5	[illegible]	2.5	[illegible]	2.375	4.0	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	4.5	4.25	[illegible]	4.5	[illegible]	3.5	[illegible]	3.875	4.0	4.75	4.125	[illegible]	4.25	4.5	2.5	[illegible]	4.875
	3.25	[illegible]	[illegible]	[illegible]	3.125	4.0	[illegible]	3.25	[illegible]	3.5	3.5	4.0	[illegible]	4.75	4.5	[illegible]	4.75	4.25	[illegible]	4.5	5.0
	3.0	3.375	[illegible]	[illegible]	[illegible]	4.125	3.5	4.375	4.0	3.5	3.125	3.75	[illegible]	4.875	[illegible]	5.0	[illegible]	4.75	[illegible]	4.5	4.0
	4.75	[illegible]	2.75	4.0	3.5	4.5	4.0	5.0	3.5	2.875	3.75	5.0	4.75	[illegible]	4.875	4.625	5.0	4.5	[illegible]	[illegible]	3.75
	[illegible]	2.25	[illegible]	3.375	5.625	4.625	5.0	6.0	3.75	4.25	4.25	4.375	4.0	4.75	5.25	[illegible]	[illegible]	3.25	3.625	3.75	3.5
	3.75	6.0	[illegible]	4.0	4.5	5.125	4.0	[illegible]	4.625	3.875	5.75	5.75	4.75	4.75	[illegible]	5.125	[illegible]	4.5	4.75	4.5	5.5
	2.5	1.75	3.5	3.0	5.0	[illegible]	4.5	5.375	4.5	3.75	4.125	3.5	4.625	4.75	4.25	[illegible]	[illegible]	4.375	3.625	5.0	4.25
	3.75	5.75	4.25	[illegible]	4.125	5.125	[illegible]	[illegible]	4.5	3.375	4.75	3.875	4.5	5.125	3.875	4.0	[illegible]	3.0	[illegible]	4.5	4.75
	4.25	[illegible]	[illegible]	4.0	4.5	[illegible]	[illegible]	[illegible]	[illegible]	4.0	[illegible]	4.0	5.25	5.0	4.0	[illegible]	[illegible]	4.25	[illegible]	5.25	3.125
	2.5	[illegible]	[illegible]	4.0	5.0	4.75	[illegible]	3.5	4.75	4.0	2.75	3.625	4.25	[illegible]	5.0	5.375	[illegible]	5.25	4.75	2.5	4.75
	2.5	4.25	2.5	[illegible]	4.75	4.5	[illegible]	5.0	3.5	[illegible]	3.375	3.5	[illegible]	[illegible]	4.5	5.5	[illegible]	2.75	3.25	2.75	[illegible]
	[illegible]	4.0	4.0	[illegible]	4.25	5.5	5.5	[illegible]	4.25	4.25	2.875	[illegible]	4.25	4.5	3.75	[illegible]	3.875	3.75	[illegible]	[illegible]	4.625
	2.75	4.5	2.25	2.125	4.875	4.75	3.75	4.0	3.875	3.875	3.875	3.875	4.25	[illegible]	4.0	4.375	4.0	4.375	3.75	4.25	4.25
	[illegible]	[illegible]	2.75	3.5	5.0	4.875	[illegible]	4.375	3.75	[illegible]	4.0	[illegible]	4.75	[illegible]	5.5	[illegible]	3.125	4.25	3.75	3.5	[illegible]
Averages	3.275	3.501	3.445	3.116	4.733	4.566	4.574	4.884	3.789	3.716	3.554	4.012	4.220	4.520	4.501	4.710	3.555	3.920	3.322	3.981	4.208

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	4.75	1.8700	B¹	6.25	2.4606	B¹	4.75	1.8700	B¹	5.25	[illegible]	B¹	4.75	1.8700
	B²	6.0	[illegible]	B²	6.0	[illegible]	B²	4.875	1.9192	B²	[illegible]	2.3120	B²	4.875	1.9192
	B³	5.0	1.9685	B³	6.0	2.3622	B³	4.75	1.8700	B³	6.25	2.4606	B³	4.75	1.8700
	B⁴	4.625	1.8208	B⁴	6.125	2.4114	B⁴	5.0	1.9685	B⁴	5.625	2.2145	B⁴	5.25	[illegible]
													B⁵	5.5	2.1653
Highest	.....	6.0	[illegible]	.....	6.25	[illegible]	.....	5.0	1.9685	.....	5.875	[illegible]	.....	5.5	2.1653
Minimum measurements.	B¹	2.5	0.9842	B¹	2.5	0.9842	B¹	2.375	0.9350	B¹	3.125	1.2303	B¹	2.375	0.9350
	B²	2.25	[illegible]	B²	3.25	1.2795	B²	2.5	[illegible]	B²	3.125	1.2303	B²	2.5	0.9842
	B³	1.5	[illegible]	B³	3.625	1.4271	B³	2.0	0.7874	B³	3.75	1.4764	B³	1.875	0.7381
	B⁴	1.75	0.6889	B⁴	[illegible]	1.1811	B⁴	2.125	0.8366	B⁴	3.375	1.3287	B⁴	2.5	[illegible]
													B⁵	3.125	1.2303
Lowest	.....	1.5	0.5905	.....	3.625	1.4271	.....	2.0	0.7874	.....	3.125	1.2303	.....	1.875	0.7381
Average measurements..	B¹	3.275	1.2893	B¹	4.233	1.6665	B¹	3.783	1.4893	B¹	4.220	1.6614	B¹	3.555	[illegible]
	B²	3.501	[illegible]	B²	4.566	1.7976	B²	3.716	1.4629	B²	4.520	1.7795	B²	3.920	1.5433
	B³	3.445	1.3562	B³	4.574	[illegible]	B³	3.554	1.3992	B³	4.501	1.8074	B³	3.322	[illegible]
	B⁴	3.116	1.2267	B⁴	4.884	1.9228	B⁴	4.012	1.5795	B⁴	4.710	1.8543	B⁴	3.981	1.5681
													B⁵	4.208	[illegible]
Averages	.....	3.336	1.3212	.....	4.589	1.7870	.....	3.766	1.4826	.....	4.610	1.7755	.....	3.797	1.4948
Measurements above average..	.....	64		.....	54		.....	60		.....	47		.....	[illegible]	
Measurements below average..	.....	56		.....	66		.....	60		.....	73		.....	[illegible]	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	OXFORDDOWN.									MERINO.												
Catalogue number of samples..	160.				161.					8.				9.				10.				
Length of fiber in crimp.....	2½ inches.				3½ inches.					——				——				2⅝ inches.				
Number of crimps per inch....	——				——					——				——				——				
Number of section.....	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	
Actual measurement in centimillimeters.	5.375	5.25	3.5	3.75	2.875	3.5	3.25	2.25	2.375	2.375	3.5	2.625	2.0	2.0	1.75	2.25	2.25	2.0	1.875	2.0	2.5	
	3.875	3.0	4.5	4.5	3.375	3.75	3.75	4.5	3.625	2.5	3.25	2.125	2.75	1.875	2.0	2.625	2.375	1.75	1.625	1.75	1.625	
	4.5	4.75	5.375	5.0	2.375	4.5	3.25	3.0	2.75	2.25	2.75	2.0	2.0	2.376	1.75	2.5	2.0	2.0	1.5	1.5	2.125	
	2.75	4.125	4.375	3.5	3.0	4.25	3.125	3.25	2.25	2.75	2.0	2.0	2.875	2.0	2.5	2.75	2.25	1.875	1.625	1.625	2.375	
	3.0	4.25	5.0	4.625	3.625	4.75	3.0	2.75	3.875	2.875	2.5	2.75	2.0	1.75	2.5	1.875	2.75	1.75	1.875	1.375	1.875	
	4.0	4.0	4.375	4.25	3.5	3.0	4.0	3.0	3.125	3.25	2.0	2.75	2.5	1.875	1.875	2.0	2.375	2.0	1.875	2.125	2.5	
	4.5	4.75	4.25	3.125	3.875	3.875	3.75	3.5	2.375	3.25	2.875	2.5	2.5	2.875	2.75	2.0	1.875	2.0	1.5	2.0	2.125	
	4.25	3.75	5.125	3.375	3.25	4.125	3.5	3.5	1.75	2.5	2.25	2.5	2.375	2.375	1.75	2.5	2.375	2.0	2.0	1.75	2.5	
	5.75	3.75	4.375	3.0	4.25	4.25	4.375	3.125	2.75	3.375	2.625	2.0	2.5	2.25	2.625	2.5	2.0	2.0	1.75	1.75	2.25	
	4.75	4.25	5.25	5.5	3.375	4.375	3.25	3.5	4.25	2.625	2.25	2.25	2.25	2.0	2.25	2.375	2.0	2.0	1.875	1.875	2.5	
	3.0	4.125	4.0	3.5	3.375	3.0	3.25	3.375	5.125	2.75	2.375	2.5	2.0	1.75	2.75	2.5	2.0	2.25	2.125	2.0	2.125	
	3.75	4.625	5.25	4.5	3.25	3.125	3.5	3.5	2.25	1.875	2.125	2.25	2.125	2.625	1.875	2.125	2.5	2.0	1.5	2.0	2.375	
	4.5	4.125	2.375	3.25	3.125	4.0	4.125	3.875	3.25	3.0	2.875	2.75	2.5	2.0	2.75	2.0	2.25	2.0	1.875	1.875	1.75	
	3.25	4.0	4.25	5.375	2.835	2.75	4.75	2.875	3.0	2.5	3.375	2.5	2.0	2.375	1.75	1.875	4.375	2.0	1.625	2.0	2.0	
	3.0	2.5	3.125	3.125	2.75	4.25	3.5	3.125	3.75	3.75	2.75	3.375	2.0	2.75	2.375	2.25	2.25	2.375	2.375	1.75	1.75	
	6.0	4.0	4.0	6.0	3.0	2.875	4.75	3.75	2.875	2.75	2.75	2.375	2.875	2.25	1.75	2.5	2.75	2.0	2.0	2.0	2.0	
	3.75	4.25	4.25	5.5	3.0	3.625	2.875	3.125	1.25	2.875	2.875	2.0	2.25	2.0	2.25	1.75	2.375	1.875	2.0	1.75	2.25	
	4.125	3.75	4.25	5.375	4.125	3.125	2.625	2.25	3.375	3.5	2.375	2.75	2.625	2.5	2.125	2.125	2.0	2.125	1.75	2.25	1.75	
	4.5	3.5	3.25	4.0	4.5	3.5	3.5	5.0	3.875	3.0	2.125	2.375	2.875	2.375	2.25	2.375	1.5	2.25	2.25	2.0	2.0	
	5.375	2.5	4.0	4.875	3.75	3.25	3.375	2.875	3.5	3.875	2.5	1.75	1.875	2.5	2.25	2.375	2.125	2.375	1.75	2.0	2.375	
	5.5	2.875	5.5	2.25	4.0	3.25	3.75	4.5	3.125	2.75	3.5	2.0	2.5	2.375	2.25	2.375	2.375	2.0	2.0	1.875	2.375	
	4.875	3.5	4.125	2.125	4.625	3.25	2.0	3.375	4.0	2.75	3.25	2.5	2.0	2.0	2.375	2.375	1.625	2.25	1.5	1.875	2.0	
	5.0	4.25	3.5	3.375	3.75	4.625	3.75	2.875	2.125	2.5	3.0	2.0	2.25	2.0	2.75	2.375	2.375	2.5	1.875	1.375	2.0	
	4.0	4.0	6.25	5.75	3.75	4.25	4.25	3.75	4.0	2.375	3.0	2.375	2.75	1.875	2.0	2.0	2.375	2.5	2.0	1.75	2.0	
	4.75	4.375	3.375	4.875	4.125	2.5	4.25	2.875	4.25	2.5	3.0	2.0	2.375	1.875	2.375	2.5	2.25	1.75	1.625	1.875	2.0	
	3.875	5.0	4.25	3.0	3.25	4.5	3.375	2.75	2.375	2.75	2.5	2.0	2.25	2.5	2.125	2.25	2.0	2.0	2.25	2.0	2.125	
	2.75	3.875	4.75	5.5	3.5	4.75	3.375	4.25	4.375	3.375	2.5	2.5	2.0	1.875	2.875	3.0	2.125	2.375	1.75	1.5	1.75	
	3.875	4.5	3.75	5.375	4.0	3.0	2.5	1.75	1.5	2.625	2.5	2.125	2.5	1.875	2.25	3.5	2.5	1.875	1.75	2.0	2.25	
	4.125	4.25	3.75	2.75	4.75	3.75	3.0	4.25	3.875	2.5	2.875	2.25	2.75	2.0	2.0	2.75	1.5	2.0	1.875	1.875	2.125	
	4.75	5.25	5.0	2.375	4.0	3.5	3.25	4.125	3.0	3.0	2.5	2.0	2.25	2.125	2.875	2.375	1.75	2.0	1.5	1.25	1.875	
Averages.....	4.250	4.040	4.304	4.050	3.565	3.708	3.500	3.354	3.133	2.825	2.665	2.329	2.350	2.166	2.258	2.358	2.241	2.062	1.829	1.825	2.108	

	OXFORDDOWN.						MERINO.					
	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:												
Maximum measurements.	B¹	6.0	2.3622	B¹	4.75	1.8700	B¹	3.875	1.5255	B¹	2.875	1.1318
	B²	5.25	2.0669	B²	4.75	1.8700	B²	3.500	1.3779	B²	2.875	1.1318
	B³	6.25	2.4606	B³	4.75	1.8700	B³	3.375	1.3287	B³	3.500	1.3779
	B⁴	5.75	2.2637	B⁴	5.0	1.9685	B⁴	3.875	1.1318	B⁴	4.375	1.7224
				B⁵	5.125	2.0177						
Highest		6.25	2.4606		5.125	2.0177		3.875	1.5255		4.375	1.7224
Minimum measurements.	B¹	2.75	1.0826	B¹	2.375	0.9350	B¹	1.875	0.7381	B¹	1.75	0.6889
	B²	2.5	0.9842	B²	2.5	0.9842	B²	2.000	0.7874	B²	1.75	0.6889
	B³	2.375	0.9350	B³	2.0	0.7874	B³	1.750	0.6889	B³	1.75	0.6889
	B⁴	2.125	0.8366	B⁴	2.25	0.8858	B⁴	1.875	0.7381	B⁴	1.50	0.5905
				B⁵	1.25	0.4921						
Lowest		2.125	0.8366		1.25	0.4921		1.750	0.6889		1.50	0.5905
Average measurements..	B¹	4.250	1.6732	B¹	3.565	1.4035	B¹	2.825	1.1122	B¹	2.166	0.8527
	B²	4.040	1.5905	B²	3.708	1.4598	B²	2.665	1.0492	B²	2.258	0.8889
	B³	4.304	1.6944	B³	3.500	1.3779	B³	2.329	0.9169	B³	2.358	0.9283
	B⁴	4.050	1.5944	B⁴	3.354	1.3204	B⁴	2.350	0.9251	B⁴	2.241	0.8822
				B⁵	3.133	1.2334						
Average		4.161	1.6381		3.452	1.3590		2.542	1.0007		2.255	0.8877
Measurements above average..		60			75			41			53	
Measurements below average..		60			75			71			67	

	MERINO.			
	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:			
Maximum measurements.	B¹	2.500	0.9842
	B²	2.375	0.9350
	B³	2.250	0.8858
	B⁴	2.500	0.9842
Highest		2.5	0.9842
Minimum measurements.	B¹	1.750	0.6889
	B²	1.500	0.5905
	B³	1.250	0.4921
	B⁴	1.225	0.6397
Lowest		1.250	0.4921
Average measurements..	B¹	2.062	0.8118
	B²	1.829	0.7200
	B³	1.825	0.7185
	B⁴	2.108	0.8299
Average		1.956	0.7700
Measurements above average..		68	
Measurements below average..		52	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples	11.				12.				13.				21.				22.			
Length of fiber in crimp	3 inches.				3½ inches.				3 inches.				2½ inches.				2½ inches.			
Number of crimps per inch	22.				20.				20.				20.				——			
Number of section	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	1.5	2.125	1.75	2.125	1.75	2.0	2.0	2.25	2.0	1.5	2.5	1.5	1.875	2.375	1.0	2.125	2.375	2.375	2.5	2.375
	2.0	1.75	1.75	2.375	1.875	3.0	1.75	2.0	1.375	1.75	2.0	1.5	1.75	2.0	1.875	2.25	1.875	2.5	2.5	1.875
	2.25	2.0	2.75	2.375	2.125	2.125	2.75	2.0	1.625	2.0	1.875	1.875	1.25	2.0	1.75	2.125	2.0	2.0	2.25	1.875
	2.125	1.575	1.875	1.875	2.25	1.875	1.875	1.75	1.625	2.0	1.875	1.5	1.75	1.75	1.75	1.75	2.0	2.0	2.0	2.5
	3.0	2.0	2.0	2.5	1.625	1.5	2.0	2.5	1.25	2.0	2.125	1.75	1.125	1.875	2.25	2.125	2.125	2.0	1.875	2.75
	1.75	2.375	2.25	2.125	2.25	2.0	2.0	1.75	1.375	1.75	2.0	1.625	1.75	1.75	2.0	2.5	1.75	2.5	1.875	1.875
	1.625	2.375	2.0	2.625	2.0	1.75	2.5	2.5	2.0	1.875	2.125	1.75	1.625	1.75	1.875	1.875	1.875	2.25	2.0	2.25
	1.875	2.125	1.5	2.25	1.625	2.75	3.25	2.0	2.5	2.25	1.875	2.125	2.375	1.75	1.625	2.25	1.5	2.0	2.0	2.25
	2.25	1.875	2.375	2.0	1.5	2.5	2.5	2.25	1.625	1.75	1.75	1.875	1.75	2.0	2.0	2.875	1.875	2.125	2.0	2.125
	2.0	1.875	2.0	2.5	1.5	2.25	2.25	1.625	1.625	2.0	1.875	2.0	2.125	1.625	2.25	2.5	1.625	2.0	1.625	2.0
	1.625	1.5	1.75	2.875	1.75	2.375	1.625	3.25	1.25	1.875	1.75	1.875	2.0	1.625	2.375	1.875	1.625	1.75	1.625	2.0
	2.25	2.0	2.0	2.375	2.375	1.75	2.375	2.25	1.625	1.75	2.375	1.875	2.0	1.75	1.875	1.75	2.0	1.875	2.0	2.25
	1.875	1.625	2.375	1.875	2.25	2.0	2.75	2.5	1.625	1.625	1.875	1.875	2.625	1.75	1.875	1.875	1.5	1.75	1.75	2.25
	1.5	1.5	2.25	1.75	2.0	2.0	2.75	2.25	1.625	1.75	2.375	1.875	2.125	2.0	2.125	2.25	1.875	1.75	1.5	2.375
	1.875	2.0	2.75	1.5	2.0	1.625	3.0	2.0	1.5	2.25	1.375	2.5	1.875	1.875	2.0	2.375	1.75	2.125	2.75	2.875
	1.875	2.5	2.875	2.0	1.5	2.5	2.375	2.875	1.5	2.25	1.875	1.5	1.5	1.625	2.0	1.75	1.625	2.25	1.875	3.0
	2.0	2.25	1.875	2.25	1.5	1.875	2.375	3.0	1.375	1.625	2.125	1.625	1.5	1.625	2.25	2.5	1.875	1.875	2.0	2.0
	2.125	1.875	1.5	1.5	2.0	1.625	2.125	2.0	1.625	1.75	2.125	2.0	2.0	2.0	2.125	2.25	2.0	1.75	2.0	2.375
	2.5	2.0	1.75	2.0	1.875	1.875	1.875	1.75	1.625	2.25	1.875	1.75	1.875	2.0	2.375	2.125	1.875	2.0	2.0	2.0
	1.5	1.75	2.25	2.375	1.875	1.5	1.875	2.375	2.0	2.0	1.75	1.75	2.0	1.625	1.875	2.0	2.375	1.875	2.0	2.25
	1.875	2.0	2.0	1.875	1.75	1.625	2.25	2.0	2.375	1.375	2.25	1.875	2.0	1.5	2.5	1.5	1.5	1.875	2.0	2.125
	2.375	1.875	2.0	2.375	2.125	1.875	2.125	2.75	1.25	1.75	2.0	1.75	2.375	2.0	2.0	2.0	1.75	2.0	2.0	2.0
	2.25	1.5	2.0	2.5	2.0	1.625	1.75	1.75	1.5	1.75	1.875	1.5	1.875	1.5	2.25	1.875	2.375	1.875	2.0	2.375
	3.0	1.5	2.0	3.75	2.5	1.875	2.75	2.25	1.875	2.0	1.875	2.125	1.75	1.875	2.0	2.125	2.0	1.625	2.25	2.125
	1.875	1.625	2.125	1.875	1.875	1.875	2.875	2.875	1.5	1.375	2.0	2.0	1.875	2.25	2.25	2.0	2.5	1.5	2.0	2.0
	1.75	1.5	2.125	3.25	1.375	1.5	3.375	3.0	1.375	2.0	1.875	1.875	1.5	2.375	1.875	2.0	1.875	1.875	2.25	2.25
	2.0	1.625	2.0	1.625	1.75	3.0	2.875	2.0	1.75	1.875	1.875	1.5	1.75	2.125	2.0	1.875	1.875	1.625	1.875	1.625
	2.0	1.75	2.125	1.875	1.5	1.75	2.25	2.375	2.0	1.375	1.875	2.25	2.5	1.75	2.0	1.875	1.5	1.875	2.5	2.125
	1.75	1.875	1.625	1.5	2.5	1.5	2.0	2.25	1.625	1.75	2.25	1.5	1.75	2.0	2.0	2.5	2.625	2.0	2.0	1.875
Averages	2.5	2.0	2.0	2.0	2.5	1.75	1.875	1.875	1.75	1.875	2.0	1.625	1.875	2.0	2.0	2.0	1.5	1.75	1.875	1.625
	2.029	1.887	2.034	2.229	1.916	1.975	2.337	2.278	1.658	1.837	1.979	1.804	1.874	1.870	2.004	2.062	1.900	1.958	2.082	2.187

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements	B¹	3.375	0.9842	B¹	3.375	0.9842	B¹	2.5	0.9842	B¹	2.375	0.9350	B¹	2.625	1.0334
	B²	2.500	0.9842	B²	3.000	1.1811	B²	2.25	0.8858	B²	2.375	0.9350	B²	2.5	0.9842
	B³	2.875	1.1318	B³	3.375	1.3287	B³	2.5	0.9842	B³	2.5	0.9842	B³	2.5	0.9842
	B⁴	3.375	1.3287	B⁴	3.375	1.2795	B⁴	2.25	0.8858	B⁴	2.5	0.9842	B⁴	3.0	1.1811
Highest	.....	3.375	1.3287	.....	3.375	1.3287	.....	2.5	0.9842	.....	2.5	0.9842	.....	3.0	1.1811
Minimum measurements	B¹	1.500	0.5905	B¹	1.875	0.5413	B¹	1.25	0.4921	B¹	1.125	0.4429	B¹	1.5	0.5905
	B²	1.500	0.5905	B²	1.500	0.5905	B²	1.50	0.5905	B²	1.5	0.5905	B²	1.5	0.5905
	B³	1.500	0.5905	B³	1.625	0.6397	B³	1.375	0.5413	B³	1.0	0.3937	B³	1.5	0.5905
	B⁴	1.500	0.5905	B⁴	1.625	0.6397	B⁴	1.5	0.5905	B⁴	1.5	0.5905	B⁴	1.625	0.6397
Lowest	.....	1.500	0.5905	.....	1.375	0.5413	.....	1.25	0.4921	.....	1.0	0.3937	.....	1.5	0.5905
Average measurements	B¹	2.029	0.7988	B¹	1.916	0.7543	B¹	1.658	0.6527	B¹	1.874	0.7377	B¹	1.900	0.7480
	B²	1.889	0.7436	B²	1.975	0.7775	B²	1.837	0.7232	B²	1.870	0.7362	B²	1.958	0.7708
	B³	2.034	0.8086	B³	2.337	0.9200	B³	1.979	0.7791	B³	2.004	0.7889	B³	2.082	0.8196
	B⁴	2.229	0.8775	B⁴	2.278	0.8968	B⁴	1.804	0.7102	B⁴	2.062	0.8118	B⁴	2.187	0.8610
Average	.....	2.038	0.8070	.....	2.125	0.8365	.....	1.820	0.7165	.....	1.952	0.7685	.....	2.031	0.7996
Measurements above average	.....	44		.....	48		.....	63		.....	51		.....	39	
Measurements below average	.....	76		.....	60		.....	57		.....	56		.....	61	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.															
Catalogue number of samples	23.				26.			72.				28.			21.		
Length of fiber in crimp	2¼ inches.				2⅛ inches.			28⅝ inches.				2½ inches.			2½ inches.		
Number of crimps per inch	26.				22.			22.				25.			25.		
Number of section	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.0	1.75	1.875	1.875	2.75	1.875	1.875	1.75	1.75	2.375	1.5	1.75	1.625	1.875	1.875	2.625	2.25
	1.875	1.75	2.0	1.875	1.875	2.0	1.5	1.5	2.25	2.25	1.5	1.25	2.5	2.25	1.625	2.5	3.0
	1.5	1.75	1.875	2.125	2.125	1.875	1.875	1.75	1.625	2.625	1.5	1.375	2.0	1.625	1.5	3.25	2.375
	1.625	2.0	2.125	2.0	1.75	2.375	2.125	1.625	2.0	1.625	2.625	1.875	2.375	1.75	1.625	2.0	2.25
	1.375	2.0	1.75	1.625	2.0	2.75	2.375	2.0	2.25	2.375	1.25	1.375	1.625	1.75	1.625	2.375	2.75
	1.375	1.5	1.75	1.625	2.5	2.375	1.875	1.375	2.125	1.875	1.625	1.375	2.0	2.0	2.0	2.0	2.25
	1.875	2.0	1.875	2.0	2.875	2.375	1.875	1.625	1.625	2.625	1.375	2.375	2.25	2.25	1.5	2.25	2.0
	1.75	2.0	1.5	1.875	1.625	2.375	1.625	2.0	2.875	2.25	1.25	1.375	1.75	2.75	2.125	2.0	2.375
	2.0	1.5	1.875	2.5	1.75	1.75	1.875	2.0	2.0	2.375	1.375	1.125	1.625	2.25	2.0	2.375	2.375
	1.875	2.0	2.0	2.125	1.75	1.875	3.0	1.75	2.375	2.25	1.375	1.375	1.625	1.625	1.75	2.875	1.75
	1.5	2.0	2.0	2.25	2.125	2.125	1.75	1.5	1.875	1.75	1.625	1.375	1.5	1.75	1.75	2.0	2.25
	1.5	1.875	1.875	1.75	1.875	1.875	1.75	1.625	1.875	2.375	1.75	1.5	2.0	1.75	2.125	2.0	2.0
	1.875	2.375	2.125	1.875	1.75	1.875	2.25	1.75	2.875	2.25	2.25	1.5	1.75	1.75	1.75	2.0	2.25
	1.875	1.875	1.75	1.75	1.75	2.0	1.875	1.875	2.0	2.25	2.25	1.625	2.0	2.5	1.875	2.875	2.375
	1.625	1.125	1.625	2.0	2.0	2.875	1.875	1.5	1.625	2.375	1.625	1.375	1.875	1.625	1.25	2.0	2.125
	1.75	1.875	1.625	2.0	1.875	1.75	1.375	1.75	1.875	2.25	1.875	1.75	1.875	2.0	1.5	2.0	2.375
	1.875	2.0	1.625	2.25	1.75	1.75	1.875	2.0	2.0	1.875	1.5	1.375	1.625	1.875	1.5	2.5	2.375
	1.125	1.625	1.5	2.0	1.5	2.25	2.625	1.75	1.875	1.875	1.875	1.25	2.5	1.5	1.5	1.875	2.0
	1.875	1.75	1.875	1.875	1.5	2.0	1.875	1.625	1.875	1.625	1.5	1.375	1.25	1.875	2.25	2.75	2.25
	2.25	1.875	2.0	1.5	1.375	1.625	2.5	1.875	2.25	2.375	1.5	1.375	1.75	2.0	1.75	2.0	1.875
	1.375	1.75	1.875	1.75	1.375	1.625	2.125	2.375	2.0	2.20	2.25	1.375	1.75	1.875	1.75	2.25	2.25
	1.75	1.875	1.75	1.875	1.375	2.0	2.125	1.5	1.75	2.375	2.0	1.375	1.625	1.75	1.375	1.875	2.5
	2.0	1.75	1.5	2.25	1.75	2.375	2.5	1.875	2.125	2.875	1.875	1.625	1.875	2.0	1.625	2.5	2.0
	1.625	1.875	1.75	2.125	1.75	2.0	1.75	2.125	2.0	2.0	1.375	1.5	2.25	2.25	1.375	1.375	1.875
	2.0	1.875	1.875	1.875	2.0	1.875	2.5	1.875	2.375	2.0	1.875	1.375	1.875	2.125	2.0	2.5	1.75
	1.5	1.75	1.5	2.125	1.75	2.5	2.25	1.5	1.875	2.875	3.0	1.5	2.0	1.75	1.75	2.5	2.375
	2.25	1.75	1.875	1.75	1.625	2.0	2.375	1.625	2.0	2.5	2.875	1.5	1.5	1.875	1.875	2.5	3.5
	1.875	1.875	1.5	1.5	1.5	1.75	2.25	1.5	2.25	1.875	1.375	1.875	2.0	1.5	1.625	2.0	2.25
	1.375	1.875	2.0	1.75	1.875	3.0	1.5	1.375	2.25	2.75	1.875	1.375	1.5	1.625	1.75	2.5	2.375
	2.0	1.875	1.75	1.5	2.0	1.75	1.75	2.25	2.25	1.875	2.25	1.375	1.75	2.875	1.625	2.25	2.375
Averages	1.741	1.829	1.800	1.912	1.850	2.087	2.029	1.754	2.062	2.228	1.804	1.486	1.854	1.945	1.720	2.266	2.283

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	2.25	0.8858	B¹	2.875	1.1318	B¹	2.375	0.9350	B¹	2.375	0.9350	B¹	2.25	0.8858
	B²	2.375	0.9350	B²	2.875	1.1318	B²	2.875	1.1318	B²	2.5	0.9842	B²	3.25	1.2795
	B³	2.125	0.8366	B³	3.0	1.1811	B³	2.875	1.1318	B³	2.875	1.1318	B³	3.5	1.3779
	B⁴	2.25	0.8858	B⁴	.....	.....	B⁴	2.875	1.1318	B⁴	.....	.....	B⁴	.....	.....
Highest	.....	2.375	0.9350	.....	3.0	1.1811	.....	2.875	1.1318	.....	2.875	1.1318	.....	3.25	1.2795
Minimum measurements.	B¹	1.125	0.4429	B¹	1.375	0.5413	B¹	1.375	0.5413	B¹	1.25	0.4921	B¹	1.25	0.4921
	B²	1.125	0.4429	B²	1.625	0.6397	B²	1.625	0.6397	B²	1.25	0.4921	B²	1.375	0.5413
	B³	1.5	0.5905	B³	1.375	0.5413	B³	1.625	0.6397	B³	1.5	0.5905	B³	1.75	0.6889
	B⁴	1.5	0.5905	B⁴	.....	.....	B⁴	.....	.....	B⁴	.....	.....	B⁴	.....	.....
Lowest	.....	1.125	0.4429	.....	1.375	0.5413	.....	1.375	0.5413	.....	1.25	0.4921	.....	1.25	0.4921
Average measurements.	B¹	1.741	0.6854	B¹	1.850	0.7283	B¹	1.754	0.6905	B¹	1.486	0.5850	B¹	1.720	0.6771
	B²	1.829	0.7200	B²	2.087	0.8116	B²	2.062	0.8118	B²	1.854	0.7299	B²	2.266	0.8921
	B³	1.800	0.7086	B³	2.029	0.7887	B³	2.228	0.8771	B³	1.945	0.7669	B³	2.283	0.8988
	B⁴	1.912	0.7527	B⁴	.....	.....	B⁴	1.804	0.7102	B⁴	.....	.....	B⁴	.....	.....
Average	.....	1.820	0.7165	.....	1.988	0.7826	.....	1.962	0.7724	.....	1.761	0.6933	.....	2.089	0.8224
Measurements above average	.....	75		.....	39		.....	56		.....	35		.....	33	
Measurements below average	.....	51		.....	51		.....	64		.....	53		.....	19	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

MERINO.

Catalogue number of samples...	30 A. NECK, TOP OF FOLD.			30 B. BETWEEN NECK AND FOLD.			30. SHOULDER.			30. SIDE.			30. HIP.			30. BELLY.		
Length of fiber in crimp.....	1¼ inches.			1¼ inches.			1½ inches.			1⅝ inches.			1¾ inches.			1¾ inches.		
Number of crimps per inch....	16.			16.			16.			16.			14.			20.		
Number of section.....	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	4.25	3.0	2.5	1.75	2.5	2.25	2.5	2.75	2.5	2.5	2.25	2.0	2.5	2.5	3.25	2.0	2.5	2.75
	3.25	3.0	2.0	2.25	2.75	2.5	2.0	2.75	2.25	2.25	1.75	1.75	2.5	2.75	1.75	3.25	2.5	1.75
	2.5	2.0	2.5	2.0	2.75	2.5	2.25	2.5	2.25	2.25	1.75	1.75	3.25	2.5	2.5	2.0	2.25	1.5
	2.75	2.75	2.5	2.75	2.75	2.25	2.0	2.25	2.25	2.25	2.25	1.75	2.25	2.75	2.5	2.5	2.5	2.0
	3.0	3.0	3.0	2.25	3.25	2.0	2.25	2.75	2.5	2.25	2.25	2.0	2.25	2.75	2.5	2.5	2.5	2.0
	2.5	2.75	2.75	2.75	3.0	2.5	1.75	2.75	2.5	2.125	2.25	2.25	2.5	2.25	1.75	2.25	2.5	2.25
	2.5	3.0	2.5	2.0	2.25	2.25	2.25	2.0	2.75	1.75	2.0	1.75	2.0	3.5	2.0	2.0	2.5	1.75
	2.75	2.5	2.5	2.25	2.5	2.0	2.0	2.0	2.0	2.0	1.5	2.0	2.25	2.75	2.0	2.0	2.75	2.0
	3.5	3.0	3.0	2.5	2.5	2.5	2.25	2.5	2.5	2.0	2.0	1.75	2.5	2.0	1.75	2.75	2.0	2.0
	3.0	2.5	3.0	2.25	2.75	2.5	2.25	2.25	2.5	2.5	3.0	2.5	2.0	2.25	2.0	2.0	2.25	2.0
	3.0	2.5	3.0	2.25	3.0	2.5	2.5	2.75	2.25	2.0	2.5	1.75	2.0	2.25	2.5	2.0	3.25	2.0
	2.75	2.5	2.25	2.25	2.5	2.25	2.0	2.0	1.75	2.0	2.0	1.75	2.0	3.0	2.0	2.75	2.75	1.75
	2.25	2.5	3.25	2.25	2.25	2.0	2.0	2.0	2.5	2.25	2.25	2.0	2.0	2.5	2.0	2.5	2.5	2.25
	3.0	3.0	2.75	2.25	3.0	2.5	2.5	2.5	2.0	2.0	2.25	1.75	2.0	2.5	2.0	2.0	2.5	2.0
	2.5	2.5	3.0	2.25	2.5	2.5	2.0	2.25	2.25	1.75	2.5	2.0	1.75	2.25	2.0	2.25	2.5	1.75
	2.75	3.0	2.5	3.0	2.25	2.0	2.5	2.25	2.25	2.75	2.25	2.25	2.5	1.75	2.75	3.25	2.25	2.5
	3.75	2.75	2.75	2.5	2.25	2.5	2.0	2.5	1.75	1.75	2.25	2.0	2.0	2.75	2.00	2.5	2.25	2.25
	2.75	2.25	2.5	3.0	3.0	2.5	1.75	2.5	2.25	3.0	2.0	2.25	2.0	3.0	2.25	2.25	3.0	1.75
	2.5	3.0	3.0	2.75	3.5	2.0	1.75	2.75	1.75	2.5	2.25	2.25	2.0	3.0	1.75	2.5	3.0	2.0
	2.25	2.75	3.0	2.0	2.5	3.0	2.0	2.5	2.25	2.5	2.25	2.5	2.0	2.5	2.0	1.75	2.25	2.75
	2.5	2.5	3.25	2.25	2.0	2.5	2.0	2.25	2.25	2.0	2.25	2.25	2.5	3.0	2.25	2.0	2.0	3.0
	2.75	3.0	3.25	3.0	2.25	2.25	1.75	2.25	2.5	2.5	2.25	2.25	2.0	2.5	2.0	2.75	2.25	2.0
	2.5	2.75	2.5	2.5	2.0	2.25	2.0	2.0	2.5	2.5	2.75	2.25	2.25	2.25	1.75	1.75	2.25	1.75
	2.5	2.5	2.25	2.75	2.5	2.25	2.0	2.25	2.75	2.0	2.75	2.0	2.75	2.5	2.25	2.5	2.0	1.75
	2.5	2.5	2.5	3.5	2.0	2.25	2.5	2.5	2.0	1.5	1.75	2.5	2.0	2.25	1.75	2.25	2.0	1.75
	2.75	3.5	3.0	3.5	2.5	2.25	2.0	2.5	2.25	2.0	2.75	2.0	2.5	2.5	2.0	2.25	3.0	2.0
	4.0	3.25	2.5	2.5	2.5	2.0	1.75	2.25	2.0	2.25	2.5	2.25	2.25	2.5	2.0	2.5	2.5	2.0
	3.0	3.5	3.0	2.25	2.25	2.0	2.25	2.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.0	2.0
	3.0	2.5	3.0	2.5	2.0	2.5	2.0	1.75	2.5	1.5	2.75	2.25	2.5	2.5	2.5	2.5	2.0	2.75
Averages.....	2.8982	2.8083	2.750	2.491	2.541	2.366	2.108	2.383	2.266	2.154	2.200	2.075	2.220	2.500	2.130	2.350	2.230	2.008

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹.	4.25	1.6732	B¹.	3.5	1.3779	B¹.	2.5	0.9842	B¹.	3.0	1.1811	B¹.	3.25	1.2795	B¹.	3.25	1.2795
	B².	3.25	1.2795	B².	3.5	1.3779	B².	2.75	1.0826	B².	2.75	1.0826	B².	3.0	1.1811	B².	3.25	1.2795
	B³.	3.25	1.2795	B³.	3.0	1.1811	B³.	2.75	1.0826	B³.	2.5	0.9842	B³.	3.25	1.2795	B³.	3.00	1.1811
Highest	.....	4.25	1.6732	.....	3.5	1.3779	.....	2.75	1.0826	.....	3.0	1.1811	.....	3.25	1.2795	.....	3.25	1.2795
Minimum measurements.	B¹.	2.25	0.8858	B¹.	1.75	0.6889	B¹.	1.75	0.6889	B¹.	1.5	0.5905	B¹.	1.75	0.6889	B¹.	1.75	0.6889
	B².	2.0	0.7874	B².	2.0	0.7874	B².	1.75	0.6889	B².	1.5	0.5905	B².	1.75	0.6889	B².	2.0	0.7874
	B³.	2.0	0.7874	B³.	2.0	0.7874	B³.	1.75	0.6889	B³.	1.75	0.6889	B³.	1.75	0.6889	B³.	1.5	0.5905
Lowest	.....	2.0	0.7874	.....	1.75	0.6889	.....	1.75	0.6889	.....	1.5	0.5905	.....	1.75	0.6889	.....	1.5	0.5905
Average measurements.	B¹.	2.9083	1.1449	B¹.	2.491	0.9807	B¹.	2.108	0.8299	B¹.	2.154	0.8480	B¹.	2.220	0.8791	B¹.	2.350	0.9251
	B².	2.8083	1.1056	B².	2.541	1.0003	B².	2.383	0.9387	B².	2.200	0.8661	B².	2.500	0.9842	B².	2.350	0.9251
	B³.	2.750	1.0828	B³.	2.366	0.9314	B³.	2.266	0.8921	B³.	2.075	0.8169	B³.	2.150	0.8464	B³.	2.008	0.7905
Average	.....	2.822	1.1110	.....	2.466	0.9708	.....	2.252	0.8866	.....	2.143	0.8436	.....	2.294	0.9031	.....	2.202	0.8668

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples..	41. NECK.			41. SIDE.			41. HIP.			41. BELLY.				45. NECK, TOP OF FOLD.			45. NECK, BETWEEN FOLD.		
Length of fiber in crimp.....	1¾ inches.			1½ inches.			1⅝ inches.			1⅞ inches.				1 1/16 inches.			1⅛ inches.		
Number of crimps per inch....	16.			16.			16.			14.				16.			16.		
Number of section.....	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B¹.	B².	B².
Actual measurement in centimillimeters.	2.0	2.0	1.75	1.75	2.5	1.50	2.5	2.0	2.5	2.5	1.75	2.5	2.0	1.50	1.75	2.0	2.5	2.0	1.5
	2.25	2.25	1.75	2.0	2.5	1.5	2.0	2.25	2.0	2.5	2.0	1.25	1.75	1.75	3.0	1.75	2.0	2.0	2.0
	2.5	2.75	1.75	2.0	2.5	1.5	2.0	2.25	2.0	2.5	2.25	2.25	2.25	1.75	2.0	2.0	1.75	2.5	2.25
	1.75	2.5	1.50	2.0	2.0	2.0	1.75	1.5	1.75	1.75	2.0	2.0	2.0	2.25	2.0	3.25	2.5	3.0	1.75
	1.50	2.25	1.50	1.75	2.0	2.0	2.0	2.0	2.5	2.75	1.25	1.25	1.5	2.5	2.0	3.0	2.0	2.25	3.25
	2.0	1.75	2.0	2.0	2.25	1.75	2.0	1.75	2.75	1.75	2.5	1.75	2.25	2.25	2.25	3.5	2.0	2.75	2.25
	2.25	2.5	2.5	1.75	2.25	1.5	1.75	2.0	2.0	1.5	1.5	1.5	2.0	3.0	4.0	3.0	3.0	2.0	1.75
	1.75	2.0	2.0	1.50	2.0	1.75	1.75	2.0	2.0	1.5	2.0	2.5	2.0	2.0	2.75	2.0	1.75	2.0	2.75
	2.25	2.25	1.75	2.0	2.25	1.75	2.0	1.75	2.0	2.0	2.25	1.5	2.0	2.0	2.25	3.25	2.75	3.0	1.75
	2.5	2.0	2.0	2.0	2.5	1.75	1.75	3.0	2.5	2.0	2.0	2.5	2.0	2.5	2.0	2.0	2.0	2.0	1.75
	2.0	2.75	2.25	1.75	2.5	1.5	2.5	3.0	2.0	2.25	2.0	1.5	1.75	2.5	2.5	2.5	2.5	2.5	2.25
	2.25	3.0	2.25	1.75	2.25	2.0	2.25	2.25	2.25	1.5	1.75	2.0	2.0	1.75	3.0	2.0	2.25	2.5	3.0
	2.25	2.25	2.0	2.5	2.5	2.0	1.75	2.75	2.0	1.75	2.0	2.0	2.0	1.75	1.5	2.0	2.0	2.75	2.25
	1.50	2.5	2.25	2.0	2.0	1.5	2.5	3.0	2.0	1.5	2.25	2.5	2.0	2.75	2.0	3.25	2.25	2.5	2.25
	1.50	2.25	2.25	2.0	1.75	2.25	2.0	2.0	2.0	2.75	1.5	1.75	1.75	2.0	2.25	2.0	1.75	1.5	2.0
	2.0	2.25	1.50	2.0	2.25	2.0	2.0	2.5	1.5	2.5	2.0	2.0	2.25	2.5	3.0	2.5	2.25	2.0	2.75
	2.0	2.5	1.75	2.0	2.25	2.5	1.75	2.25	2.0	1.75	2.0	2.0	2.0	2.5	2.5	3.5	3.0	3.25	1.75
	2.25	2.5	2.25	1.75	1.75	2.0	2.0	2.0	2.0	1.75	2.0	2.75	1.75	2.0	2.0	2.25	2.25	2.25	2.5
	1.75	2.0	2.25	2.0	2.0	3.0	2.0	2.0	2.0	2.25	2.5	2.25	1.5	2.5	2.5	2.25	3.25	3.0	2.5
	2.5	1.50	2.0	1.75	1.5	1.75	2.5	2.75	2.75	2.75	2.0	1.5	2.0	2.5	2.25	3.5	2.0	3.0	2.0
	2.25	2.25	2.0	1.75	1.75	2.0	2.25	1.75	1.75	1.75	2.0	1.5	2.5	2.5	2.5	1.75	2.5	2.5	2.0
	2.5	1.50	2.0	2.0	2.0	1.75	1.75	2.25	1.5	1.75	2.5	2.0	1.75	2.0	1.75	1.5	2.5	2.5	2.0
	2.25	2.25	2.0	1.75	1.75	1.5	2.25	2.0	2.25	1.75	2.0	2.0	2.0	1.75	3.0	2.5	2.0	2.5	2.5
	2.0	2.0	2.25	1.75	2.75	1.75	2.0	2.25	2.0	1.25	2.25	2.75	2.25	2.5	2.25	2.75	2.25	3.0	1.75
	2.5	1.75	2.0	2.25	1.75	2.5	1.75	1.75	2.0	2.0	2.25	1.25	1.5	2.5	1.75	2.5	3.5	1.5	1.25
	2.75	2.0	2.0	2.25	2.25	1.75	2.0	3.0	2.0	1.5	2.0	4.0	1.5	1.5	2.5	1.75	2.5	1.5	1.5
	1.75	2.0	1.75	1.75	2.0	1.5	2.5	2.5	3.0	2.0	1.5	2.5	1.5	2.0	2.0	2.0	2.5	2.25	1.25
	2.0	2.0	2.5	2.0	1.75	2.25	2.0	2.5	2.0	2.25	3.0	2.5	1.5	2.5	2.5	2.25	2.0	2.0	2.0
	2.25	2.0	2.0	2.0	2.0	2.25	2.25	2.5	2.5	2.25	2.5	2.25	1.5	2.25	3.0	1.75	2.25	2.25	2.5
	2.25	2.25	2.25	2.5	1.75	1.75	2.5	2.5	2.0	1.5	1.5	1.5	1.5	2.0	2.0	2.25	2,5	2.0	2.15
Averages.....	2.108	2.158	2.00	1.941	2.108	1.883	2.033	2.266	2.125	2.016	2.033	2.033	1.891	2.191	2.291	2.416	2.341	2.358	2.116

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	2.75	1.0826	B¹	2.5	0.9842	B¹	2.5	0.9842	B¹	2.75	1.0826	B¹	3.0	1.1811	B¹	3.25	1.2795
	B²	3.0	1.1811	B²	2.75	1.0826	B²	3.0	1.1811	B²	3.0	1.1811	B²	4.0	1.5748	B²	3.25	1.2795
	B³	2.5	0.9842	B³	3.0	1.1811	B³	2.75	1.0826	B³	4.0	1.5745	B³	3.5	1.3779	B³	3.25	1.2795
										B⁴	2.5	0.9842						
Highest		3.0	0.1811		3.0	1.1811		3.0	1.1811		4.0	1.5748		4.0	1.5748		3.25	1.2795
Minimum measurements.	B¹	1.5	0.5905	B¹	1.5	0.5905	B¹	1.75	0.6889	B¹	1.25	0.4921	B¹	1.5	0.5905	B¹	1.75	0.6889
	B²	1.5	0.5905	B²	1.75	0.6889	B²	1.5	0.5905	B²	1.5	0.5905	B²	1.5	0.5905	B²	1.5	0.5905
	B³	1.5	0.5905	B³	1.5	0.5905	B³	1.5	0.5905	B³	1.25	0.4921	B³	1.5	0.5905	B³	1.25	0.4921
										B⁴	1.5	0.5905						
Lowest		1.5	0.5905		1.5	0.5905		1.5	0.5905		1.25	0.4921		1.5	0.5905		1.25	0.4921
Average measurements..	B¹	2.108	0.8299	B¹	1.941	0.7641	B¹	2.033	0.8003	B¹	2.016	0.7936	B¹	2.191	0.8625	B¹	2.341	0.9216
	B²	2.158	0.8496	B²	2.108	0.8299	B²	2.266	0.8921	B²	2.033	0.8003	B²	2.291	0.9019	B²	2.358	0.9283
	B³	2.00	0.7874	B³	1.883	0.7413	B³	2.125	0.8366	B³	2.033	0.8003	B³	2.416	0.9511	B³	2.116	0.8330
										B⁴	1.891	0.7444						
Average		2.088	0.8220		1.977	0.7783		2.141	0.8429		1.993	0.7846		2.296	0.9039		2.271	0.8040

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples..	45. SIDE.			45. HIP.			45. BELLY.			46. SHOULDER.			46. SIDE.			46. HIP.		
Length of fiber in crimp.....	1⅛ inches.			1 1/16 inches.			1¼ inches.			1⅛ inches.			1¼ inches.			1¼ inches.		
Number of crimps per inch....	20.			12.			16.			20.			20.			20.		
Number of section.....	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.0	3.0	2.5	2.75	3.0	3.0	2.75	2.25	1.5	1.75	2.0	2.0	2.0	2.0	2.25	2.0	1.75	1.5
	2.5	1.5	3.0	2.75	2.75	2.75	2.5	2.25	2.25	1.75	1.75	2.0	1.75	2.0	1.75	2.25	2.25	2.0
	2.5	2.75	2.25	3.75	2.5	2.75	2.625	2.5	2.75	1.75	1.5	2.0	2.0	2.0	1.75	2.0	2.0	2.25
	2.5	2.75	2.5	3.75	3.25	3.0	2.0	1.75	2.5	1.75	2.25	2.75	3.0	3.25	1.5	1.75	2.5	2.5
	3.0	1.5	1.25	3.0	3.25	2.5	2.25	3.0	2.0	1.75	2.0	2.25	2.75	2.0	1.5	2.0	2.0	2.5
	1.75	2.5	2.5	2.25	2.5	1.5	2.75	1.5	2.75	1.75	2.25	1.75	1.75	2.0	1.75	2.25	2.0	1.75
	2.25	2.5	2.75	2.5	2.0	2.25	1.75	2.0	2.0	2.0	2.0	1.25	2.25	2.0	2.25	2.0	3.0	2.5
	2.0	2.25	2.25	3.5	2.75	3.25	2.5	2.5	2.5	2.25	2.0	2.25	2.0	1.75	1.75	2.0	2.5	2.5
	2.0	2.5	2.75	3.75	1.75	2.5	2.5	2.0	1.5	1.75	2.0	2.5	1.5	1.5	1.5	2.0	2.0	1.5
	2.5	1.5	1.5	3.75	3.25	2.5	2.5	2.0	2.25	1.75	2.0	2.5	1.75	2.0	1.75	2.0	1.75	2.0
	2.5	3.75	2.0	2.25	2.75	2.25	2.5	2.0	2.5	2.5	2.0	2.25	1.25	2.0	2.25	1.25	3.0	2.25
	2.5	1.5	2.25	3.0	2.25	1.75	2.0	2.25	2.5	2.25	2.25	3.0	1.75	1.5	2.0	2.0	1.75	1.75
	1.75	1.75	2.5	2.5	3.25	3.0	1.75	2.25	2.0	1.75	1.75	2.5	1.75	2.5	2.5	1.75	2.25	1.5
	2.0	2.25	3.0	4.25	3.25	2.5	2.0	3.0	1.75	2.0	2.0	1.75	1.75	2.0	1.75	2.5	1.75	2.25
	2.5	1.5	3.0	2.25	3.0	2.0	2.5	2.25	2.5	1.75	2.0	2.25	2.0	1.5	1.75	1.75	1.5	1.5
	2.0	2.25	2.75	3.5	2.5	2.5	1.75	2.0	2.25	2.0	2.0	2.0	1.5	2.0	1.75	2.25	2.5	2.5
	2.0	2.25	2.25	2.75	2.5	3.5	2.25	2.5	2.0	2.25	2.25	2.0	2.0	2.0	1.5	2.0	2.0	1.5
	2.25	2.25	2.5	4.0	2.5	3.0	2.25	2.0	1.75	2.5	2.0	2.0	2.0	2.5	1.75	2.5	1.75	1.5
	2.0	2.0	2.25	4.0	2.5	2.5	2.0	2.0	2.0	2.0	2.25	1.75	2.0	2.0	1.5	2.0	2.0	3.25
	2.0	2.0	3.0	2.5	3.5	3.25	2.0	2.0	2.5	2.0	1.25	2.0	2.5	2.5	1.5	3.0	2.0	2.0
	2.5	2.0	1.5	2.5	2.25	3.0	2.0	2.0	2.5	2.0	2.0	1.75	2.0	2.0	1.5	2.25	2.0	1.75
	2.75	2.25	2.5	4.0	2.0	2.0	2.5	1.75	1.25	2.5	2.75	2.5	2.0	2.0	2.25	2.75	1.75	2.0
	2.0	2.75	2.0	2.5	2.5	2.0	2.25	2.0	2.0	2.25	2.5	1.75	1.75	2.5	2.0	2.5	2.0	1.75
	2.25	2.0	2.5	3.5	2.25	2.25	2.25	2.0	1.5	2.75	2.25	1.5	1.75	2.25	2.0	1.75	2.0	2.0
	2.25	3.0	2.25	3.25	4.0	2.25	2.0	2.25	2.5	2.25	2.5	2.0	1.75	2.0	1.75	2.0	1.75	2.25
	2.0	2.0	1.75	2.25	4.0	1.75	2.25	2.0	2.5	1.5	2.75	2.25	1.25	2.0	1.75	1.5	1.75	3.25
	2.75	2.75	3.0	2.25	3.75	2.5	2.5	2.0	1.5	1.25	2.0	3.5	2.0	2.5	2.5	1.5	2.0	2.0
	3.0	1.25	3.0	2.75	2.75	3.0	2.0	2.5	2.25	1.75	3.0	2.0	2.5	1.75	2.25	2.0	2.0	2.0
	1.75	3.25	2.0	3.5	3.25	2.5	2.0	2.5	1.5	2.5	2.5	2.0	1.5	1.75	3.0	1.75	3.0	2.0
	2.75	2.25	1.75	2.75	3.5	2.75	2.5	2.75	1.75	2.0	2.0	2.25	2.0	2.0	1.75	2.0	2.0	2.5
Averages.....	2.283	2.283	2.366	3.066	2.791	2.541	2.2458	2.1916	2.0833	2.020	2.125	2.175	1.991	2.091	1.891	2.041	2.116	2.116

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reductions:																		
Maximum measurements.	B¹	3.0	1.1811	B¹	4.25	1.6732	B¹	2.75	1.0826	B¹	2.75	1.0826	B¹	3.0	1.1811	B¹	3.0	1.1181
	B²	3.75	1.4763	B²	4.0	1.5748	B²	3.0	1.1811	B²	3.0	1.1811	B²	3.75	1.4763	B²	3.0	1.1181
	B³	3.0	1.1811	B³	3.5	1.3779	B³	2.75	1.0826	B³	3.5	1.3779	B³	3.0	1.1811	B³	3.25	1.2795
Highest.....	.....	3.75	1.4763	.....	4.25	1.6732	.....	3.0	1.1811	.....	3.5	1.3779	.....	3.75	1.4763	.....	3.25	1.2795
Minimum measurements.	B¹	1.75	0.6889	B²	2.25	0.8858	B¹	1.75	0.6889	B¹	1.25	0.4921	B¹	1.25	0.4921	B¹	1.25	0.4921
	B²	1.25	0.4921	B³	1.75	0.6889	B³	1.5	0.5905	B³	1.25	0.4921	B³	1.5	0.5905	B³	1.5	0.5905
	B³	1.25	0.4921	B³	1.5	0.5905	B³	1.25	0.4921	B³	1.25	0.4921	B³	1.5	0.5905	B³	1.5	0.5905
Lowest	.....	1.25	0.4921	.....	1.5	0.5905	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.25	0.4921
Average measurements..	B¹	2.283	0.8988	B¹	3.066	1.2070	B¹	2.2458	0.8838	B¹	2.020	0.8070	B¹	1.991	0.7838	B¹	2.041	0.8035
	B²	2.283	0.8791	B²	2.791	1.0998	B²	2.1916	0.8629	B²	2.125	0.8366	B²	2.091	0.8232	B²	2.116	0.8330
	B³	2.366	0.9314	B³	2.541	1.0003	B³	2.0833	0.8200	B³	2.175	0.8562	B³	1.891	0.7444	B³	2.116	0.8330
Average.....	.....	2.294	0.9031	.....	2.799	1.1019	.....	2.1735	0.8555	.....	2.116	0.8336	.....	1.991	0.7838	.....	2.091	0.8232

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples..	46. BELLY.			47. SHOULDER.			47. SIDE.			47. HIP.			47. BELLY.			48. SHOULDER. (top of fold.)		
Length of fiber in crimp	$1\frac{7}{16}$ inches.			$1\frac{1}{2}$ inches.			$1\frac{5}{16}$ inches.			$1\frac{3}{8}$ inches.			$1\frac{7}{16}$ inches.			$1\frac{1}{2}$ inches.		
Number of crimps per inch....	20.			20.			20.			20.			20.			16.		
Number of section	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.
Actual measurement in centimillimeters.	2.5	2.75	2.0	2.25	2.25	2.5	2.0	1.75	2.0	3.25	3.5	2.0	2.25	2.25	2.0	1.75	2.5	1.75
	1.75	1.5	2.75	2.0	2.75	2.25	2.0	2.5	2.25	2.5	1.5	2.0	1.75	2.5	2.0	2.0	1.75	2.0
	1.5	2.5	2.0	2.0	2.25	2.25	2.25	2.5	1.75	3.25	2.5	2.5	2.75	2.0	2.0	2.5	3.25	2.5
	2.0	3.0	2.5	2.5	2.25	1.5	2.5	2.0	1.75	2.25	1.75	1.75	2.5	2.5	2.5	3.0	2.75	2.0
	2.25	1.75	2.5	2.5	2.25	2.0	2.0	3.0	2.0	2.75	2.75	2.25	2.0	2.5	2.75	1.75	2.25	2.0
	1.75	1.5	2.5	2.0	2.25	2.0	2.25	1.75	2.0	2.0	2.25	2.0	2.0	2.5	2.0	2.5	2.75	2.25
	1.5	2.0	2.0	2.0	2.25	2.0	2.0	1.75	2.0	2.75	2.5	1.75	2.25	2.5	2.25	2.25	2.0	2.5
	1.75	2.0	2.5	1.75	2.75	1.75	1.75	2.0	2.25	2.0	2.0	2.25	2.0	2.5	2.25	2.5	1.75	2.0
	1.75	2.75	1.75	2.5	2.0	2.0	2.0	2.5	2.0	2.0	1.5	2.25	2.5	2.0	2.25	2.5	3.0	1.75
	1.5	1.75	2.0	2.25	2.5	2.0	2.25	2.75	2.0	1.75	2.5	3.0	2.0	1.75	3.0	2.25	2.5	1.75
	2.0	2.0	2.75	2.25	2.0	2.0	2.0	2.25	2.5	3.25	2.25	3.0	2.5	2.5	2.0	2.25	2.5	2.5
	1.75	2.0	1.5	2.0	2.75	2.5	3.25	2.0	2.5	2.0	3.0	1.5	2.75	2.25	2.0	2.5	2.75	2.25
	2.25	2.0	1.75	3.0	2.0	2.0	2.0	2.25	1.75	2.5	2.25	2.25	2.0	3.0	2.25	3.0	3.0	2.0
	1.75	1.75	2.25	2.0	2.25	2.25	2.5	3.0	2.25	3.0	3.0	2.5	2.0	2.5	2.25	2.0	3.0	2.0
	2.0	2.5	2.25	2.0	2.0	2.0	1.75	2.5	2.0	2.0	2.5	2.0	2.0	2.0	1.75	1.75	2.25	1.75
	2.5	2.75	2.75	2.25	2.5	1.75	2.0	2.0	1.75	2.25	2.25	2.25	1.75	2.75	1.75	2.0	1.25	2.25
	1.75	1.75	2.0	2.0	1.75	3.0	2.0	1.75	1.75	2.0	2.5	1.5	2.75	2.75	2.0	1.75	3.5	2.5
	1.75	2.0	2.5	2.5	2.25	1.75	2.75	2.0	1.75	2.5	1.75	2.0	2.75	3.0	2.25	2.0	2.75	1.75
	1.75	2.25	1.75	2.5	1.75	2.25	2.75	2.0	2.75	3.0	2.0	2.0	3.25	2.25	2.5	2.75	2.0	3.25
	1.5	2.0	2.0	2.25	2.25	2.5	2.0	1.75	2.0	2.25	2.0	2.75	2.75	2.5	2.25	2.0	1.25	1.75
	2.0	1.5	2.5	1.75	2.25	2.0	1.75	2.0	1.75	2.25	2.25	2.5	2.0	2.25	2.0	2.25	3.75	1.5
	2.5	2.0	2.0	2.0	2.5	2.5	2.0	2.25	2.0	1.75	2.0	2.25	2.25	2.5	2.5	2.0	3.0	2.0
	1.75	2.0	2.0	1.75	2.5	2.0	3.0	1.75	1.75	1.5	2.25	2.5	2.0	2.5	2.0	3.0	2.5	1.5
	2.0	2.5	1.5	2.75	3.0	2.5	2.0	2.0	2.0	2.5	2.25	3.5	3.5	2.25	2.25	3.0	2.5	1.25
	1.75	1.75	2.0	2.0	2.75	2.0	1.75	2.5	1.75	2.5	2.5	1.5	3.0	2.25	2.25	2.25	4.5	2.5
	2.75	2.5	2.25	2.5	2.0	1.75	3.0	2.0	1.75	2.25	2.25	2.25	3.25	3.0	2.5	1.75	2.0	1.5
	2.5	2.0	1.75	2.75	2.0	1.75	2.75	1.75	2.25	1.75	2.75	2.25	2.25	3.0	2.5	1.75	2.25	2.25
	2.0	2.0	1.25	1.25	2.75	1.75	2.25	2.0	1.75	2.0	2.0	2.25	2.25	2.5	2.25	1.5	1.5	2.5
	2.25	2.0	1.75	2.5	2.25	1.75	2.75	2.0	2.0	2.5	2.5	2.25	2.5	2.0	2.5	2.75	2.5	3.25
	1.75	2.25	3.0	2.0	2.5	2.75	2.0	3.0	2.25	2.0	2.0	2.5	2.5	3.0	2.0	3.50	2.5	1.5
Averages	1.983	2.100	2.200	2.191	2.308	2.100	2.241	2.166	2.083	2.341	2.300	2.241	2.400	2.458	2.225	2.291	2.525	2.108

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reductions:																		
Maximum measurements.	B^1	2.75	1.0826	B^1	3.0	1.1811	B^1	3.25	1.2795	B^1	3.25	1.2795	B^1	3.5	1.3779	B^1	3.5	1.3779
	B^2	3.0	1.1811	B^2	3.0	1.1811	B^2	3.0	1.1181	B^2	3.5	1.3779	B^2	3.0	1.1811	B^2	4.5	1.7716
	B^3	3.0	1.1811	B^3	3.0	1.1811	B^3	2.75	1.0826	B^3	3.5	1.3779	B^3	3.0	1.1811	B^3	3.25	1.2795
Highest	.....	3.0	1.1811	.....	3.0	1.1811	.....	3.25	1.2795	.....	3.5	1.3779	.....	3.5	1.3799	.....	4.5	1.7716
Minimum measurements.	B^1	1.5	0.5905	B^1	1.25	0.4921	B^1	1.75	0.6889	B^1	1.5	0.5905	B^1	1.75	0.6889	B^1	1.5	0.5905
	B^2	1.5	0.5905	B^2	1.75	0.6889	B^2	1.75	0.6889	B^2	1.5	0.5905	B^2	1.75	0.6889	B^2	1.25	0.4921
	B^3	1.25	0.4921	B^3	1.5	0.5905	B^3	1.75	0.6889	B^3	1.5	0.5905	B^3	1.75	0.6889	B^3	1.25	0.4921
Lowest	.....	1.25	0.4931	.....	1.25	0.4921	.....	1.75	0.6889	.....	1.5	0.5905	.....	1.75	0.6889	.....	1.25	0.4921
Average measurements..	B^1	1.983	0.7807	B^1	2.191	0.8625	B^1	2.241	0.8822	B^1	2.341	0.9216	B^1	2.400	0.9448	B^1	2.291	0.9019
	B^2	2.100	0.8267	B^2	2.308	0.9086	B^2	2.166	0.8527	B^2	2.300	0.9055	B^2	2.458	0.9677	B^2	2.525	0.9940
	B^3	2.200	0.8661	B^3	2.100	0.8267	B^3	2.083	0.8200	B^3	2.241	0.8822	B^3	2.225	0.8759	B^3	2.108	0.8299
Average	.....	2.094	0.8244	.....	2.199	0.8657	.....	2.163	0.8515	.....	2.294	0.9031	.....	2.361	0.9295	.....	2.374	0.9346

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples	48. SHOULDER. (Between fold.)			48. SIDE.			48. HIP.			48. BELLY.			51. SHOULDER.			51. SIDE.		
Length of fiber in crimp	1½ inches.			1¾ inches.			1¾ inches.			1¼ inches.			1¾ inches.			1 7/16 inches.		
Number of crimps per inch	16.			16.			16.			16.			20.			20.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.0	2.5	2.0	2.0	2.0	2.0	1.75	2.5	2.0	2.75	2.25	1.75	1.75	1.75	2.5	3.5	2.25	2.5
	2.5	2.75	2.25	1.75	2.0	2.25	2.25	2.0	3.75	2.5	2.5	1.75	1.75	2.0	2.75	1.75	2.75	1.75
	2.25	2.0	2.5	3.5	1.75	2.25	2.25	3.0	2.25	2.75	2.0	2.0	2.0	1.5	2.0	3.0	3.0	3.25
	2.0	2.25	2.5	2.0	2.0	2.25	2.75	2.0	2.25	2.25	2.0	2.0	2.75	4.5	3.0	2.0	2.0	2.5
	2.0	2.25	1.75	2.5	3.0	1.5	2.0	3.5	2.0	3.5	2.0	2.0	1.75	2.5	2.75	3.0	2.0	2.0
	2.25	2.0	2.0	2.5	2.0	2.5	2.0	2.75	2.5	3.0	2.0	1.75	2.0	2.25	2.0	1.75	2.0	2.75
	2.0	2.75	2.0	1.75	2.0	1.5	2.0	2.5	2.5	3.5	2.0	1.75	1.75	2.26	1.75	2.0	2.75	2.5
	2.5	2.0	2.5	2.25	2.5	2.5	2.25	2.75	2.0	2.5	2.25	2.25	2.0	1.75	1.5	1.5	1.75	1.5
	2.25	2.75	1.75	2.5	3.0	2.0	2.0	2.0	2.75	2.5	3.0	2.0	3.5	3.0	2.0	1.75	2.0	2.0
	3.0	2.25	1.5	2.25	2.0	2.0	2.0	3.0	2.0	2.0	2.0	1.75	2.0	2.75	3.5	3.25	2.0	2.0
	2.75	2.75	1.75	2.0	1.75	3.0	2.4	2.75	2.25	2.0	2.25	2.0	3.0	2.0	2.0	1.75	2.75	3.0
	3.5	2.5	2.25	2.25	2.25	2.0	3.25	2.5	2.0	1.75	3.0	2.0	2.25	2.0	2.25	2.5	3.0	2.5
	3.0	1.75	1.75	2.25	2.25	2.0	3.0	2.25	2.0	3.0	1.75	1.5	2.25	2.0	3.0	2.0	2.0	2.5
	1.75	3.5	2.75	2.25	3.5	2.0	2.0	2.0	1.75	2.25	3.0	2.0	3.5	2.0	1.75	2.75	3.5	2.0
	2.25	2.75	2.0	2.5	2.5	2.25	2.5	2.5	2.25	2.0	3.5	2.25	2.25	1.5	2.25	2.5	2.5	2.25
	2.5	3.5	2.0	3.0	2.25	2.0	2.0	2.0	2.0	3.0	2.0	2.0	1.5	2.0	2.0	2.5	2.25	2.25
	2.25	3.5	2.25	1.5	2.25	2.0	2.5	1.75	2.75	3.0	2.75	1.75	2.0	1.75	1.75	2.5	1.75	2.5
	2.5	2.0	3.0	2.5	3.25	2.0	2.5	2.25	2.5	3.0	2.75	2.0	3.5	2.0	2.25	3.0	2.25	1.75
	1.75	2.75	3.0	2.75	2.25	1.0	2.0	3.0	2.0	3.0	2.25	2.0	2.0	2.25	2.25	2.0	2.0	1.75
	2.0	2.5	2.5	3.0	1.75	2.0	1.5	2.0	2.0	2.0	3.25	2.5	1.5	2.0	2.75	2.0	1.75	2.0
	3.0	1.75	3.25	2.5	2.5	2.0	2.5	3.5	3.0	2.75	1.5	2.0	2.25	1.75	2.25	1.5	1.75	2.0
	2.0	2.25	2.25	2.0	2.0	2.0	2.5	3.25	1.75	2.5	2.5	2.5	1.75	2.25	3.25	1.75	2.5	1.75
	1.75	2.0	2.75	1.5	2.0	2.0	2.25	2.25	2.0	2.5	2.75	2.5	2.5	2.25	2.0	3.0	2.75	1.75
	2.25	3.25	2.0	2.0	1.75	2.0	2.25	3.0	2.5	3.0	2.75	3.0	2.0	1.75	1.75	1.75	2.25	2.5
	2.25	1.5	2.25	2.25	2.5	2.0	2.0	2.5	2.25	3.0	2.25	2.0	2.25	2.0	1.5	2.75	2.0	2.5
	2.0	2.5	2.0	2.25	3.0	2.0	1.75	2.25	3.0	3.25	3.0	2.0	2.25	2.5	1.75	2.0	2.0	2.5
	2.75	3.25	1.75	2.0	2.0	1.75	1.5	3.25	3.0	4.0	2.5	2.25	2.25	3.5	2.0	2.75	2.5	2.75
	2.25	2.25	2.5	2.25	3.75	2.25	2.25	2.5	2.25	2.5	3.0	1.75	2.25	2.0	3.0	1.75	2.25	2.5
	2.0	2.5	2.5	1.5	3.5	2.25	3.0	3.25	2.25	2.0	2.25	2.25	2.0	2.5	2.5	1.5	2.5	2.0
	2.25	3.25	2.0	2.0	1.75	2.0	2.0	2.0	2.0	2.5	2.75	1.75	2.0	2.0	2.0	1.75	2.0	2.0
Averages	2.183	2.483	2.241	2.208	2.333	2.100	2.233	2.625	2.316	2.675	2.480	2.033	2.116	2.275	2.266	2.116	2.308	2.216

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reductions:																		
Maximum measurements	B¹	2.75	1.0825	B¹	3.5	1.3779	B¹	3.25	1.2795	B¹	4.0	1.5748	B¹	3.5	1.3779	B¹	3.5	1.3779
	B²	3.5	1.3779	B²	3.75	1.4763	B²	3.5	1.3779	B²	3.5	1.3779	B²	4.5	1.7716	B²	3.5	1.3779
	B³	3.0	1.1811	B³	3.0	1.1811	B³	3.75	1.4763	B³	2.5	0.9842	B³	3.5	1.3779	B³	3.25	1.2795
Highest	.....	3.5	1.3779	.....	3.75	1.4763	.....	3.75	1.4763	.....	4.0	1.5748	.....	4.5	1.7716	.....	3.5	1.3779
Minimum measurements	B¹	1.75	0.6889	B¹	1.5	0.5905	B¹	1.5	0.5905	B¹	1.75	0.6889	B¹	1.5	0.5905	B¹	1.5	0.5905
	B²	1.5	0.5905	B²	1.75	0.6889	B²	1.75	0.6889	B²	1.5	0.5905	B²	1.5	0.5905	B²	1.75	0.6889
	B³	1.5	0.5905	B³	1.0	0.3937	B³	1.75	0.6889	B³	1.5	0.5905	B³	1.5	0.5905	B³	1.5	0.5905
Lowest	.....	1.5	0.5905	.....	1.0	0.3937	.....	1.5	0.5905	.....	1.5	0.5905	.....	1.5	0.5905	.....	1.5	0.5905
Average measurements	B¹	2.183	0.8594	B¹	2.208	0.8692	B¹	2.233	0.8791	B¹	2.675	1.0531	B¹	2.116	0.8330	B¹	2.116	0.8330
	B²	2.483	0.9775	B²	2.333	0.9185	B²	2.625	1.0334	B²	2.400	0.9448	B²	2.275	0.8956	B²	2.308	0.9086
	B³	2.241	0.8822	B³	2.100	0.8267	B³	2.316	0.9118	B³	1.633	0.8003	B³	2.266	0.8921	B³	2.216	0.8724
Average	.....	2.302	0.9062	.....	2.213	0.8712	.....	2.291	0.9018	.....	2.369	0.9326	.....	2.219	0.8736	.....	2.213	0.8712
Measurements above average	.....	35		.....	41		.....	41		.....	47		.....	39		.....	42	
Measurements below average	.....	53		.....	47		.....	49		.....	43		.....	51		.....	48	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples..	51. HIP.			51. BELLY.			52. SHOULDER.			52. SIDE.			52. HIP.			52. BELLY.		
Length of fiber in crimp.....	1½ inches.			1⅝ inches.			1 2/16 inches.			1¼ inches.			1⅜ inches.			1 1/16 inches.		
Number of crimps per inch....	16.			16.			22.			22.			20.			20.		
Number of section.....	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	3.25	4.0	2.0	1.75	2.5	2.25	1.5	1.75	1.25	1.75	1.5	2.75	1.75	2.0	1.75	1.5	2.25	1.5
	2.0	1.25	2.25	2.25	2.75	2.0	2.5	1.75	1.5	1.75	1.5	1.5	1.5	2.0	1.75	2.5	1.5	1.75
	3.0	3.0	2.25	2.0	2.5	2.0	2.0	1.75	2.0	1.25	2.0	1.5	2.5	2.25	1.5	1.5	1.5	1.75
	2.0	1.75	2.0	1.5	2.75	2.0	2.0	2.25	1.75	1.5	1.5	2.0	1.75	1.75	1.5	2.0	2.0	2.0
	1.5	2.25	2.0	2.25	2.0	2.25	1.5	2.0	2.0	1.75	1.0	1.5	2.5	1.75	1.75	2.5	1.5	1.75
	1.75	2.25	3.5	3.0	2.25	2.0	1.75	2.0	1.75	2.0	1.5	1.75	2.25	1.75	2.0	2.0	2.0	2.0
	1.75	2.0	2.5	2.75	2.25	2.25	1.5	1.75	1.25	1.5	1.5	1.5	1.5	1.75	1.5	2.5	1.75	2.0
	2.25	2.5	2.25	2.5	2.5	1.75	1.5	1.75	1.5	1.5	1.5	1.75	2.0	2.25	2.0	2.0	1.5	2.0
	2.0	2.25	2.0	2.5	2.0	2.0	1.75	1.75	1.5	1.75	1.5	1.5	2.25	2.0	2.0	1.75	1.5	1.75
	1.5	2.0	2.5	1.5	2.25	1.25	1.5	1.75	1.75	1.75	2.5	2.0	1.75	2.0	1.5	1.75	2.0	1.5
	2.25	2.5	2.0	2.0	2.0	1.5	1.75	1.75	1.5	1.5	1.5	1.75	2.0	2.0	2.0	2.5	2.0	2.0
	1.75	2.25	2.25	2.5	2.5	1.75	2.5	2.0	2.0	1.75	1.5	1.75	2.0	2.5	2.0	2.25	1.5	1.5
	2.5	2.5	2.5	3.25	2.5	1.75	1.5	2.0	1.5	1.5	1.75	1.75	2.25	1.5	1.5	2.0	1.75	1.75
	1.75	2.5	2.0	2.75	2.5	1.75	1.5	1.75	1.75	1.5	2.25	2.0	2.5	2.0	2.0	1.5	1.75	1.75
	2.25	2.5	2.0	2.0	2.0	1.75	2.0	1.75	1.5	1.75	2.0	1.75	1.75	2.0	1.75	1.5	3.25	2.25
	2.0	1.75	1.75	2.25	2.25	2.0	2.0	2.0	1.5	1.75	1.75	1.75	1.75	2.25	1.75	1.5	2.0	2.25
	1.75	1.75	2.25	1.75	2.5	2.75	1.75	2.25	1.5	1.5	2.0	1.5	2.0	1.75	1.75	1.5	2.0	1.75
	1.75	1.5	2.75	2.0	1.75	2.25	1.75	1.5	1.25	1.5	1.75	2.25	1.75	1.75	1.5	1.5	1.25	2.25
	1.75	2.5	2.0	2.75	2.5	2.25	1.5	1.75	1.5	1.75	1.5	2.0	1.5	2.0	1.75	2.0	1.25	2.25
	2.25	1.75	1.5	2.0	2.5	2.0	1.75	1.75	1.0	1.25	1.5	1.5	1.5	2.25	1.5	2.25	1.5	1.5
	1.75	2.0	1.75	3.0	2.25	2.0	1.75	1.75	1.0	2.5	1.75	2.25	2.25	1.5	2.0	2.0	1.5	2.0
	1.75	1.75	2.0	2.0	1.75	2.0	1.5	2.0	1.75	1.25	1.75	1.75	2.0	2.0	1.75	1.5	1.75	2.0
	2.0	2.0	1.75	2.0	1.75	2.5	1.75	1.75	1.5	1.5	2.0	1.75	1.75	2.25	1.75	1.5	1.5	1.5
	2.25	2.0	2.0	2.5	3.0	2.5	1.5	1.5	1.5	1.5	2.0	1.75	1.75	2.0	1.75	2.0	1.75	1.75
	2.25	2.0	2.5	2.5	2.25	2.0	1.75	1.75	1.25	1.5	2.0	1.75	1.5	2.5	2.0	1.75	2.0	1.5
	2.0	2.25	2.0	2.0	2.5	1.75	1.75	1.75	1.75	2.0	1.75	1.5	1.5	2.0	2.0	1.75	2.0	1.5
	1.25	2.25	2.5	2.0	2.25	2.0	2.0	1.5	2.0	2.0	2.0	1.75	1.5	1.75	1.75	1.5	2.0	1.5
	1.75	2.5	1.75	2.0	2.0	2.0	1.5	1.5	1.5	1.75	1.25	2.25	1.5	1.75	2.25	2.0	2.5	2.25
	2.0	2.0	2.25	2.25	2.25	2.5	2.0	1.75	1.5	2.0	1.75	1.75	1.75	1.5	1.5	1.5	2.0	1.25
Averages	3.0	2.0	2.5	2.25	3.0	1.75	1.75	1.5	1.5	1.5	1.5	1.5	2.0	2.0	1.75	2.0	1.75	1.5
	2.033	2.216	2.175	2.291	2.308	2.016	1.758	1.791	1.650	1.658	1.708	1.791	1.875	1.958	1.775	1.866	1.816	1.800

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	3.25	1.2795	B¹	3.25	1.2795	B¹	2.5	0.9842	B¹	2.5	0.9842	B¹	2.5	0.9842	B¹	2.5	0.9842
	B²	4.0	1.5748	B²	3.0	1.1811	B²	2.25	0.8858	B²	2.5	0.9842	B²	2.5	0.9842	B²	3.25	1.2795
	B³	3.5	1.3779	B³	2.75	1.0826	B³	2.0	0.7874	B³	2.75	1.0826	B³	2.25	0.8858	B³	2.25	0.8858
Highest.....	.....	4.0	1.5748	.....	3.25	1.2795	.....	2.5	0.9842	.....	2.75	1.0826	.....	2.5	0.9842	.....	3.25	1.2795
Minimum measurements.	B¹	1.25	0.4921	B¹	1.5	0.5905	B¹	1.5	0.5905	B¹	1.25	0.4921	B¹	1.5	0.5905	B¹	1.5	0.5905
	B²	1.25	0.4921	B²	1.75	0.6889	B²	1.5	0.5905	B²	1.0	0.3937	B²	1.5	0.5905	B²	1.25	0.4921
	B³	1.5	0.5905	B³	1.25	0.4921	B³	1.25	0.4921	B³	1.5	0.5905	B³	1.5	0.5905	B³	1.25	0.4921
Lowest	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.0	0.3937	.....	1.5	0.5905	.....	1.25	0.4921
Average measurements..	B¹	2.033	0.8003	B¹	2.291	0.9019	B¹	1.758	0.6921	B¹	1.658	0.6527	B¹	1.875	0.7381	B¹	1.866	0.7346
	B²	2.216	0.8724	B²	2.308	0.9086	B²	1.791	0.7051	B²	1.708	0.6724	B²	1.958	0.7708	B²	1.816	0.7149
	B³	2.175	0.8562	B³	2.016	0.7936	B³	1.650	0.6496	B³	1.791	0.7051	B³	1.775	0.6988	B³	1.800	0.7086
Average	.....	2.141	0.8429	.....	2.205	0.8681	.....	1.733	0.6822	.....	1.716	0.6755	.....	1.869	0.7358	.....	1.808	0.7118
Measurements above average..	.....	40		.....	18		.....	56		.....	52		.....	42		.....	50	
Measurements below average..	.....	50		.....	42		.....	34		.....	38		.....	42		.....	40	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples..	53. SHOULDER.			53. SHOULDER, TOP OF FOLD.			53. SHOULDER, BETWEEN FOLD.			53. SIDE.			53. HIP.			53. HIP, TOP OF FOLD.		
Length of fiber in crimp.....	1 1/16 inches.			1 1/4 inches.			1 inch.			1 1/8 inches.			1 1/16 inches.			1 1/8 inch.		
Number of crimps per inch....	22.			——			20.			22.			20.			14.		
Number of section.....	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.5	2.25	2.0	2.25	3.0	1.75	3.0	2.0	1.75	2.0	2.0	1.5	1.5	1.75	1.5	2.5	4.0	4.0
	2.25	2.0	2.25	2.5	2.5	2.0	1.5	2.25	1.75	2.0	2.25	2.0	1.5	1.75	2.0	2.0	2.5	2.5
	2.0	2.25	1.75	2.75	2.25	2.25	1.75	1.75	2.0	1.5	2.0	1.5	1.5	1.75	1.75	2.5	2.75	2.0
	2.0	2.25	2.0	2.5	2.0	1.5	1.75	2.25	1.5	2.0	2.0	1.75	2.25	2.0	1.5	1.75	2.25	3.0
	1.75	1.75	1.75	2.25	2.5	2.25	2.25	2.0	2.0	1.5	2.23	1.5	1.5	1.75	2.0	2.25	2.0	2.25
	1.5	2.0	2.0	2.0	2.25	2.5	1.75	2.5	2.0	2.0	1.5	1.5	1.5	1.75	1.75	3.0	2.5	2.25
	1.75	2.25	2.0	2.25	2.5	2.5	1.75	2.0	1.5	1.75	1.5	2.0	2.0	1.75	1.75	3.25	3.25	2.25
	2.0	2.0	2.0	1.75	3.0	1.5	1.75	1.5	2.0	1.5	1.5	1.25	2.0	1.5	1.75	3.0	3.5	2.25
	2.0	1.75	2.0	2.5	2.75	1.75	1.75	2.0	1.75	1.75	2.25	2.0	2.0	1.5	1.75	3.5	2.0	2.0
	1.5	1.5	2.0	2.25	2.25	1.75	2.0	1.5	1.75	1.75	2.0	1.5	1.5	2.0	1.5	2.75	2.75	2.0
	2.0	2.25	1.5	2.25	2.25	3.0	1.75	2.25	1.75	1.75	2.0	1.5	1.75	1.5	2.0	3.0	2.25	2.0
	2.0	2.0	1.75	2.0	2.0	2.25	1.75	2.0	2.0	1.5	2.5	1.75	1.75	1.5	2.0	3.5	3.5	2.75
	1.75	1.75	1.75	2.25	2.0	2.0	2.0	2.0	1.5	1.5	2.0	1.75	1.75	1.5	1.5	5.0	2.25	2.25
	2.0	1.5	1.75	2.0	2.5	2.5	1.5	2.0	1.5	1.5	1.75	2.0	2.0	1.75	1.75	2.5	2.0	2.25
	2.0	2.25	1.75	1.75	2.5	1.5	1.75	2.25	1.5	2.0	2.5	2.25	1.75	2.25	1.0	2.25	4.25	2.0
	2.25	1.75	1.75	2.0	2.0	2.0	1.5	2.25	1.75	1.75	1.5	2.0	2.0	1.75	2.0	2.0	2.75	4.0
	1.5	2.0	1.5	2.5	2.0	2.5	2.25	1.5	1.25	1.75	1.75	1.75	1.25	1.5	1.75	2.75	3.5	2.25
	1.5	2.0	1.5	1.75	2.0	2.25	2.0	2.0	1.5	2.0	2.5	1.5	1.5	1.25	1.75	3.0	3.25	3.0
	1.5	2.0	2.25	3.25	2.75	2.5	1.25	1.75	1.25	2.0	2.0	1.75	1.5	1.5	1.75	4.5	3.5	2.0
	2.5	1.5	1.5	2.25	2.25	2.75	1.75	2.25	1.5	1.75	2.0	2.0	1.5	1.5	1.5	3.25	2.5	3.25
	2.25	2.0	2.0	1.75	2.0	2.5	1.75	2.0	1.5	1.5	2.0	1.25	1.75	1.75	1.5	2.5	2.0	2.25
	1.75	2.0	2.0	2.5	2.25	2.5	2.0	1.5	1.25	1.75	1.5	1.75	1.5	1.5	1.25	2.5	3.25	2.5
	2.0	2.25	1.5	2.0	2.5	2.25	2.0	1.5	1.5	1.75	2.0	1.5	1.75	2.25	1.25	2.25	4.0	2.0
	1.75	2.0	1.5	3.5	2.0	2.0	2.5	2.0	1.75	1.75	2.0	1.5	1.75	1.5	1.5	2.5	2.5	2.25
	1.75	2.0	1.75	1.75	2.25	2.25	1.25	1.5	2.5	1.5	1.75	1.5	1.75	1.75	1.5	2.0	2.75	2.25
	1.75	2.0	1.75	2.0	2.75	2.5	2.0	1.5	2.75	2.25	2.0	1.5	1.75	1.75	1.5	2.25	2.25	2.25
	2.0	1.5	2.0	2.5	2.5	2.0	1.5	2.5	2.0	1.75	2.0	2.0	2.25	1.5	1.5	2.75	2.75	2.5
	1.75	2.0	2.0	2.25	2.5	2.5	1.5	2.25	1.5	1.75	2.0	2.0	2.0	1.5	1.5	2.5	2.5	2.0
	1.75	2.0	2.25	1.75	2.25	2.5	1.5	2.25	2.0	2.0	2.0	2.0	2.25	1.75	2.0	2.5	1.25	2.5
	1.75	2.25	1.5	1.75	4.0	2.5	2.0	2.25	2.0	2.0	1.75	1.75	1.5	2.0	1.75	2.5	2.25	1.75
Averages	1.891	1.966	1.833	2.258	2.441	2.250	1.825	1.975	1.750	1.775	1.958	1.716	1.758	1.683	1.650	2.583	2.725	2.516

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	2.50	0.9842	B¹	3.5	1.3779	B¹	3.0	1.1811	B¹	2.25	0.8858	B¹	2.25	0.8858	B¹	5.0	1.9685
	B²	2.25	0.8858	B²	4.0	1.5748	B²	2.5	0.9842	B²	2.5	0.9842	B²	2.25	0.8858	B²	4.25	1.6732
	B³	2.25	0.8858	B³	3.5	1.3779	B³	2.75	1.0826	B³	2.25	0.8858	B³	2.0	0.7874	B³	4.0	1.5748
Highest.....	.....	2.50	0.9842	.....	4.0	1.5748	.....	3.0	1.1811	.....	2.5	0.9842	.....	2.25	0.8858	.....	5.0	1.9685
Minimum measurements.	B¹	1.50	0.5905	B¹	1.75	0.6889	B¹	1.25	0.4921	B¹	1.50	0.5905	B¹	1.25	0.4921	B¹	1.75	0.6889
	B²	1.50	0.5905	B²	2.0	0.7874	B²	1.50	0.5905	B²	1.50	0.5905	B²	1.50	0.5905	B²	1.25	0.4921
	B³	1.50	0.5905	B³	1.50	0.5905	B³	1.25	0.4921	B³	1.25	0.4921	B³	1.0	0.3937	B³	1.75	0.6889
Lowest	.....	1.50	0.5905	.....	1.50	0.5905	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.0	0.3937	.....	1.25	0.4921
Average measurements..	B¹	1.891	0.7444	B¹	2.258	0.8889	B¹	1.825	0.7185	B¹	1.775	0.6988	B¹	1.758	0.6921	B¹	2.583	1.0169
	B²	1.966	0.7740	B²	2.441	0.9610	B²	1.975	0.7775	B²	1.958	0.7708	B²	1.683	0.6625	B²	2.725	1.0728
	B³	1.833	0.7216	B³	2.250	0.8858	B³	1.750	0.6889	B³	1.716	0.6755	B³	1.650	0.6496	B³	2.516	0.9905
Average	.....	1.896	0.7466	.....	2.316	0.9118	.....	1.850	0.7283	.....	1.816	0.7149	.....	1.697	0.6681	.....	2.608	1.0267
Measurements above average..	.....	51		.....	37		.....	42		.....	41		.....	50		.....	37	
Measurements below average..	.....	39		.....	53		.....	48		.....	49		.....	40		.....	53	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples	53. HIP, BETWEEN FOLD.			53. BELLY, A.			53. BELLY, B.			54. SHOULDER, TOP OF FOLD.			54. SHOULDER, BETWEEN FOLD.			54. HIP, TOP FOLD.		
Length of fiber in crimp	⅞ inch.			1¼ inches.			1 inch.			⅞ inch.			1 1/10 inches.			⅞ inch.		
Number of crimps per inch	16.			20.			20.			14.			——			——		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.25	1.75	2.5	1.5	3.0	1.75	1.75	2.0	2.5	3.5	3.25	2.5	2.0	1.5	2.0	5.0	3.0	2.5
	2.5	2.5	2.0	2.0	2.0	2.25	2.0	2.25	1.75	2.25	2.25	2.5	1.75	1.5	1.25	5.0	4.0	3.0
	2.25	1.75	2.0	1.75	2.25	1.75	1.75	2.5	2.25	2.0	2.0	2.25	2.5	2.25	1.75	3.25	3.25	3.5
	1.75	2.25	1.5	2.0	1.75	1.25	2.25	1.75	2.25	2.75	2.0	2.25	2.75	2.25	1.5	3.5	3.0	4.0
	2.0	1.75	2.0	1.75	2.25	1.75	1.5	1.75	1.75	2.0	1.75	2.0	2.5	1.5	2.0	3.5	3.5	2.75
	2.75	3.5	1.75	2.25	1.5	2.25	2.0	2.0	1.75	2.5	2.25	2.5	2.5	1.75	2.5	2.75	2.25	2.5
	1.75	2.25	1.5	2.0	1.25	2.5	1.75	1.75	1.5	3.0	2.5	2.5	2.0	1.5	2.0	2.0	3.25	2.0
	2.0	2.25	1.75	1.75	1.75	1.5	1.5	1.75	2.25	2.5	2.0	2.5	2.0	1.5	2.25	3.5	3.5	2.25
	1.75	1.5	1.75	2.0	1.5	2.0	2.5	2.0	2.25	2.0	2.75	2.25	1.25	1.5	2.5	4.0	2.0	2.0
	2.0	1.75	1.5	1.5	1.5	2.0	1.5	2.0	2.0	2.5	2.5	2.25	2.25	2.0	1.75	3.0	2.5	3.0
	1.75	2.25	2.0	1.5	2.0	2.0	2.0	2.0	3.0	3.0	2.0	2.5	2.25	2.0	2.0	2.25	3.25	2.0
	1.75	2.25	1.75	1.75	1.5	1.5	1.75	2.0	2.25	2.25	2.5	2.0	1.75	1.5	1.75	2.5	3.5	3.0
	2.0	2.0	1.75	1.5	1.5	1.75	1.75	2.0	1.5	3.0	2.0	3.0	1.75	1.75	1.75	3.0	3.5	2.5
	2.5	2.0	1.75	1.5	2.25	1.75	2.5	2.25	2.0	2.0	2.0	2.5	2.0	2.25	1.5	2.25	2.75	2.75
	2.0	2.0	2.0	2.0	1.75	2.0	1.75	1.75	2.0	2.5	2.0	4.0	2.0	2.5	2.0	1.75	3.5	2.0
	1.75	2.0	1.5	1.5	1.75	1.5	1.75	2.5	2.25	3.75	2.0	2.0	2.5	2.0	1.75	3.25	2.5	3.0
	2.5	1.75	2.25	1.5	2.0	1.5	2.5	2.0	2.25	2.5	2.0	3.0	2.5	1.75	2.0	3.75	3.25	2.0
	1.75	2.0	1.5	2.0	2.5	1.5	2.0	2.5	1.75	3.5	2.5	2.75	2.0	2.25	3.0	2.0	2.75	3.25
	2.0	2.5	1.75	1.5	2.0	1.75	2.0	2.5	2.25	2.75	2.0	3.0	2.25	2.25	2.0	3.5	2.75	2.75
	2.0	2.25	1.75	1.75	2.0	2.0	1.5	2.0	2.25	2.5	2.0	2.25	2.25	2.0	2.0	2.0	3.0	2.25
	2.5	2.5	1.25	1.75	1.5	2.25	2.0	2.0	2.0	3.0	4.0	2.25	2.25	2.0	2.0	3.5	2.75	2.25
	3.0	2.0	2.0	1.75	2.0	2.0	2.25	2.0	2.25	2.25	2.0	2.5	2.5	1.5	1.75	2.25	3.0	2.5
	2.5	2.0	2.25	2.0	2.0	1.5	1.75	1.75	1.75	3.5	2.0	2.5	2.25	2.25	2.25	2.25	3.0	3.25
	2.0	2.5	2.0	1.5	2.0	2.0	1.75	2.0	1.75	1.75	2.25	3.0	2.25	2.25	2.25	3.0	4.0	3.0
	2.25	2.25	1.5	2.0	1.5	1.5	2.0	2.75	2.0	2.5	2.25	3.0	2.75	2.5	1.75	2.5	4.5	2.25
	1.5	2.25	1.75	2.0	2.0	1.75	1.75	2.25	2.0	2.0	3.75	2.5	2.0	1.75	1.5	3.25	3.25	2.5
	2.5	2.0	2.0	1.75	1.5	2.0	2.0	2.0	2.0	2.5	2.0	2.5	2.0	2.0	1.75	3.0	2.75	3.5
	2.0	2.5	2.25	2.25	1.75	1.75	2.25	2.25	1.75	3.25	2.5	2.25	1.75	2.0	2.25	2.5	2.25	3.25
	2.25	2.25	2.0	1.75	2.0	2.0	1.75	2.0	2.0	4.0	2.0	2.0	2.25	2.25	1.5	2.75	2.25	2.5
	1.75	1.75	1.75	1.5	1.5	2.0	2.25	1.75	2.25	2.75	2.5	2.5	2.25	2.0	1.5	3.25	2.0	2.25
Averages	2.108	2.141	1.833	1.775	1.900	1.833	1.925	2.066	2.050	2.708	2.316	2.517	2.166	1.933	1.925	3.000	3.025	2.683
	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of inch.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	3.0	1.1811	B¹	2.25	0.8858	B¹	2.50	0.9842	B¹	4.0	1.5748	B¹	2.75	1.0826	B¹	5.0	1.9685
	B²	3.5	1.3779	B²	2.25	0.8858	B²	2.75	1.0826	B²	4.0	1.5748	B²	2.50	0.9842	B²	4.5	1.7716
	B³	2.5	0.9842	B³	2.50	0.9842	B³	3.0	1.1811	B³	3.0	1.1811	B³	3.0	1.1811	B³	4.0	1.5748
Highest	.....	3.5	1.3779	.....	2.5	0.9842	.....	3.0	1.1811	.....	4.0	1.5748	.....	3.0	1.1811	.....	5.0	1.9685
Minimum measurements.	B¹	1.50	0.5905	B¹	1.50	0.5905	B¹	1.50	0.5905	B¹	1.75	0.6889	B¹	1.25	0.4921	B¹	1.75	0.6889
	B²	1.50	0.5905	B²	1.50	0.5905	B²	1.75	0.6889	B²	1.75	0.6889	B²	1.50	0.5905	B²	2.0	0.7874
	B³	1.25	0.4921	B³	1.50	0.5905	B³	1.50	0.5905	B³	2.0	0.7874	B³	1.25	0.4921	B³	2.0	0.7874
Lowest	.....	1.25	0.4921	.....	1.50	0.5905	.....	1.50	0.5905	.....	1.75	0.6889	.....	1.25	0.4921	.....	1.75	0.6889
Average measurements.	B¹	2.108	0.8299	B¹	1.775	0.6988	B¹	1.925	0.7578	B¹	2.708	1.0661	B¹	2.166	0.8527	B¹	3.000	1.1811
	B²	2.141	0.8429	B²	1.900	0.7480	B²	2.066	0.8133	B²	2.316	0.9118	B²	1.933	0.7610	B²	3.025	1.1909
	B³	1.833	0.7216	B³	1.833	0.7216	B³	2.050	0.8070	B³	2.517	0.9909	B³	1.925	0.7578	B³	2.683	1.0562
Average	.....	2.027	0.7980	.....	1.836	0.7228	.....	2.013	0.7925	.....	2.514	0.9897	.....	2.008	0.7905	.....	2.902	1.1425
Measurements above average	.....	31		.....	40		.....	29		.....	24		.....	34		.....	46	
Measurements below average	.....	59		.....	50		.....	61		.....	66		.....	56		.....	44	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

MERINO.

Catalogue number of samples	54. HIP, BETWEEN FOLD.			51. BELLY.			55. SHOULDER, TOP OF FOLD.			55. SHOULDER, BETWEEN FOLD.			55. SIDE.			55. HIP, TOP OF FOLD.		
Length of fiber in crimp	1 inch.			1 inch.			1½ inch.			1 1/16 inch.			1 1/16 inch.			1½ inch.		
Number of crimps per inch	14.			——			14.			20.			20.			16.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.0	2.5	2.0	2.5	1.25	2.5	2.5	2.25	3.5	1.5	2.25	1.5	2.75	2.5	1.5	2.75	3.0	2.25
	2.5	3.0	1.75	2.5	2.0	2.25	2.0	3.25	2.25	2.5	2.0	1.75	1.75	2.5	1.75	2.5	2.75	1.75
	2.25	1.5	2.25	2.0	1.75	2.25	2.5	2.5	2.75	3.0	2.0	1.5	2.25	2.5	1.75	2.75	2.25	1.75
	2.25	2.5	2.0	2.5	1.5	2.25	2.5	2.0	2.25	2.25	3.0	2.0	3.0	2.0	1.75	2.75	2.25	2.25
	2.25	2.0	1.75	2.0	1.5	1.75	2.5	2.5	1.75	3.0	2.25	1.75	2.25	1.75	1.75	2.75	2.0	1.75
	2.5	2.0	3.0	2.0	2.25	2.75	2.75	2.25	2.25	2.25	2.0	2.0	2.25	1.75	1.75	2.5	3.0	2.25
	2.5	2.5	2.0	2.5	2.25	2.25	2.5	2.5	2.0	2.0	2.0	2.0	3.0	2.25	1.5	2.0	1.75	2.25
	2.5	1.75	1.5	2.25	2.25	3.0	2.5	2.5	1.25	3.0	2.0	1.75	1.25	2.25	1.75	3.0	2.25	2.0
	2.0	2.75	2.25	2.75	1.75	2.0	2.25	2.25	2.25	1.75	2.25	1.75	2.25	2.25	1.75	2.0	2.25	2.0
	1.75	1.75	2.25	2.75	1.75	1.75	3.0	2.5	2.5	2.0	1.5	2.25	1.75	2.0	1.5	2.5	2.5	3.0
	3.0	2.75	2.75	3.0	2.0	2.0	2.25	3.0	1.75	1.25	2.0	2.25	2.0	2.0	1.75	2.25	2.0	2.0
	1.75	1.25	1.5	1.5	2.0	2.25	2.25	2.5	3.0	2.0	2.0	2.5	3.0	1.5	1.75	2.25	2.5	2.25
	1.5	2.5	3.0	3.0	1.75	2.0	2.5	2.5	1.0	2.0	2.0	2.0	1.5	2.0	1.75	3.0	4.0	2.0
	2.5	3.25	2.5	2.0	2.0	2.0	3.0	2.25	1.75	3.0	2.5	2.0	1.75	1.75	2.0	1.75	1.75	2.0
	1.75	1.75	2.0	1.25	1.75	1.75	3.0	3.0	2.25	2.0	2.0	1.75	1.75	1.75	1.5	2.0	1.75	2.25
	2.0	2.25	2.0	1.25	2.0	2.0	2.5	3.5	1.75	2.0	2.0	1.75	1.25	2.0	1.75	2.5	2.75	1.75
	1.5	1.25	1.5	1.5	1.25	2.25	3.0	2.5	1.75	1.75	2.25	2.0	1.5	2.5	1.5	3.0	2.5	2.0
	2.25	1.5	3.0	2.25	2.5	2.0	2.25	2.5	2.25	2.5	2.0	2.0	1.5	1.75	1.75	3.0	3.5	2.5
	1.75	1.75	2.25	1.5	1.5	2.25	2.25	2.25	2.25	2.0	2.0	1.75	2.0	2.0	2.0	2.0	2.75	1.5
	1.75	2.25	1.75	1.5	1.5	1.75	2.5	4.0	1.75	2.0	2.5	2.0	2.0	1.75	2.0	2.5	2.25	2.0
	1.5	1.25	2.5	2.25	1.75	2.0	2.25	2.5	2.0	1.75	2.75	2.25	2.5	2.0	1.75	2.25	3.5	2.0
	2.25	2.25	2.25	1.75	1.75	1.5	2.75	3.0	1.5	2.0	2.25	1.75	3.0	1.75	1.5	2.25	2.5	3.0
	2.0	2.5	2.5	2.5	2.0	2.0	2.0	4.0	1.25	1.75	1.75	3.0	1.5	1.75	1.5	2.0	3.0	1.75
	1.75	3.25	2.0	2.25	2.0	2.0	2.25	2.75	2.25	2.0	1.75	1.75	1.5	2.5	2.25	2.5	2.5	1.75
	2.25	3.0	1.75	2.0	2.0	2.25	3.0	3.5	1.75	2.0	2.0	1.75	2.25	2.25	1.75	2.0	2.0	1.5
	2.0	3.0	3.0	1.75	2.25	3.0	2.0	2.5	1.25	2.25	2.0	1.75	1.5	1.75	1.75	2.5	2.75	3.0
	2.0	2.0	2.0	2.0	2.0	1.75	2.0	4.0	1.5	1.75	2.0	2.25	1.25	1.75	1.5	2.25	2.0	4.25
	2.75	1.75	1.75	1.75	2.0	2.0	2.75	3.0	1.5	2.75	2.0	1.75	1.5	2.25	2.75	2.25	2.0	1.5
	2.0	2.5	2.0	2.0	2.0	2.25	3.0	2.5	2.0	2.25	2.0	1.75	1.75	1.5	2.75	2.0	2.0	2.25
	2.0	1.75	2.5	2.5	2.0	2.0	3.0	3.5	2.5	2.0	1.75	1.5	2.25	1.75	2.75	2.0	1.75	2.25
Averages	2.168	2.316	2.200	2.357	1.875	2.091	2.691	2.766	2.008	2.008	2.075	1.941	1.858	2.000	1.725	2.291	2.458	2.158

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements	B¹	3.0	1.1811	B¹	3.5	1.3779	B¹	3.75	1.4763	B¹	2.75	1.0826	B¹	2.75	1.0826	B¹	2.75	1.0826
	B²	3.25	1.2795	B²	2.25	1.2775	B²	4.0	1.5748	B²	2.75	1.0826	B²	2.5	0.9842	B²	4.0	1.5748
	B³	3.5	1.3779	B³	3.0	1.1811	B³	2.5	1.3779	B³	3.0	1.1811	B³	2.75	1.0826	B³	4.25	1.6732
Highest	.....	3.5	1.3779	.....	3.5	1.3779	.....	4.0	1.5748	.....	3.0	1.1811	.....	2.75	1.0826	.....	4.25	1.6732
Minimum measurements	B¹	1.5	0.5905	B¹	1.75	0.6889	B¹	2.0	0.7874	B¹	1.25	0.4921	B¹	1.25	0.4921	B¹	1.75	0.6889
	B²	1.25	0.4921	B²	1.25	0.4921	B²	2.0	0.7874	B²	1.5	0.5905	B²	1.5	0.5905	B²	1.75	0.6889
	B³	1.5	0.5905	B³	1.5	0.5905	B³	1.0	0.3937	B³	1.5	0.5905	B³	1.5	0.5905	B³	1.5	0.5905
Lowest	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.0	0.3937	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.5	0.5905
Average measurements	B¹	2.168	0.8299	B¹	2.358	0.9283	B¹	2.591	1.0200	B¹	2.008	0.7905	B¹	1.858	0.7314	B¹	2.291	0.9019
	B²	2.316	0.9118	B²	1.875	0.7383	B²	2.766	1.0889	B²	2.075	0.8169	B²	2.0	0.7874	B²	2.458	0.9677
	B³	2.2	0.8661	B³	2.091	0.8232	B³	2.008	0.7905	B³	1.941	0.7641	B³	1.725	0.6791	B³	2.158	0.8496
Average	.....	2.228	0.8692	.....	2.108	0.8299	.....	2.455	0.9667	.....	2.008	0.7905	.....	1.861	0.7326	.....	2.291	0.9019
Measurements above average	.....	44		.....	36		.....	47		.....	22		.....	39		.....	31	
Measurements below average	.....	48		.....	54		.....	43		.....	68		.....	51		.....	59	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples..	55. HIP, BETWEEN FOLD.			55. BELLY.			56. NECK, TOP OF FOLD.			56. SHOULDER, BETWEEN FOLD.			56. SIDE.			56. HIP, TOP OF FOLD.		
Length of fiber in crimp.....	1⅛ inches.			1 7/16 inches.			1 5/16 inches.			1⅛ inches.			1⅛ inches.			1 inch.		
Number of crimps per inch....	20.			20.			16.			20.			20.			16.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	1.25	2.0	1.75	2.0	2.25	1.75	2.5	3.25	2.25	2.25	2.0	1.75	2.25	2.25	2.75	4.25	3.0	3.0
	1.25	2.25	1.75	2.0	2.25	1.75	2.75	2.5	2.0	2.75	2.25	1.25	3.0	2.0	2.0	2.5	2.25	2.75
	2.25	2.5	2.25	1.75	2.0	1.75	2.0	2.25	2.0	2.5	2.0	1.25	2.0	2.0	1.75	2.5	4.0	1.75
	2.0	2.0	1.75	2.0	2.25	2.0	2.5	2.5	2.0	2.5	2.25	1.5	2.25	2.5	1.75	2.0	2.5	1.75
	2.25	1.75	2.0	2.5	2.25	1.5	2.25	2.0	2.5	2.0	3.0	1.75	2.0	2.0	1.25	2.75	3.75	1.75
	2.0	1.75	2.0	3.0	2.5	1.5	2.75	3.0	3.0	1.5	2.5	2.25	2.25	3.0	2.5	3.25	2.25	2.0
	1.25	1.75	1.75	2.0	2.0	1.75	3.0	2.5	3.0	2.25	2.0	1.0	2.75	2.0	2.0	2.5	2.0	1.5
	1.75	2.0	1.75	1.75	2.0	2.25	3.5	2.5	2.0	2.0	2.25	1.5	2.5	1.5	1.25	2.25	2.5	2.5
	1.75	2.25	1.5	2.5	2.0	1.75	2.0	2.0	3.0	2.5	2.25	2.0	2.0	2.5	1.5	1.5	2.5	1.75
	2.0	2.0	1.75	2.5	2.0	1.5	2.75	2.0	2.5	1.75	3.0	2.0	2.0	2.5	2.5	2.0	2.0	1.75
	2.25	1.75	2.0	2.0	2.0	1.75	3.25	1.5	2.0	3.0	1.75	1.75	2.25	2.5	2.25	2.5	3.0	1.5
	2.0	2.0	1.75	2.25	1.75	1.75	3.0	2.5	2.5	3.0	2.5	1.75	2.0	2.5	2.25	1.75	2.0	1.5
	1.75	2.0	2.0	2.0	3.0	1.5	3.5	3.0	2.25	2.0	2.5	2.25	2.25	2.75	1.5	3.5	2.5	2.0
	1.75	2.0	2.0	2.25	2.0	1.5	2.25	1.5	2.0	2.0	2.25	2.0	3.0	2.0	2.25	3.25	1.75	1.5
	2.0	2.5	1.75	2.0	2.25	1.5	2.75	2.75	3.0	2.0	1.25	1.5	2.5	2.0	1.5	3.0	2.5	1.5
	2.25	1.75	1.75	2.25	1.75	1.75	2.25	3.5	2.5	1.5	2.0	1.75	1.75	2.75	2.25	3.75	2.5	1.5
	1.75	1.75	1.5	2.5	2.0	1.75	2.75	2.25	2.25	2.0	2.75	1.75	2.0	1.5	2.0	2.5	2.0	1.75
	2.0	1.75	1.5	2.0	1.75	1.5	2.5	2.25	2.25	1.75	2.25	2.0	2.0	2.25	1.75	2.0	2.25	3.75
	2.25	2.0	1.5	2.25	2.0	1.75	2.75	3.0	1.5	2.0	2.5	1.5	3.0	2.0	2.5	2.75	2.5	1.5
	1.5	2.0	2.0	2.25	2.0	1.75	2.0	1.25	2.5	2.0	2.0	1.5	2.5	2.0	2.0	2.5	2.5	3.25
	2.25	1.75	1.5	2.25	2.0	1.5	3.5	2.75	2.0	1.5	1.5	1.25	2.5	1.5	1.5	2.25	2.0	2.25
	1.75	2.0	1.5	2.25	2.5	1.75	3.5	2.0	2.0	1.75	2.25	1.75	2.5	2.0	2.25	2.5	2.25	2.0
	2.0	1.5	2.25	1.75	2.25	2.25	2.5	2.0	2.0	1.75	2.25	1.75	1.75	2.5	1.75	2.25	2.25	2.75
	3.0	1.5	2.0	3.0	2.25	1.75	3.0	3.25	3.25	2.5	1.75	1.5	2.0	1.25	2.0	3.0	2.0	2.0
	2.25	2.0	1.75	2.0	2.5	1.75	3.25	3.25	2.0	2.25	2.0	1.5	3.25	2.25	2.5	2.25	2.5	2.0
	2.25	2.5	1.75	2.0	1.75	2.0	2.0	2.5	1.75	2.0	2.5	1.75	2.75	2.5	1.75	2.5	2.0	1.75
	2.0	2.0	2.25	2.0	2.5	1.75	2.0	2.25	2.25	1.75	2.75	2.0	2.25	1.75	2.0	2.0	3.25	1.5
	1.75	2.0	1.25	1.75	2.25	2.5	2.0	2.0	2.75	2.0	2.5	1.75	2.25	2.0	1.5	3.25	2.0	2.5
	1.75	2.25	2.0	2.0	1.75	2.0	3.0	3.0	3.25	2.25	1.75	1.75	2.75	2.5	1.75	3.0	2.75	2.0
	2.25	2.0	1.75	2.25	3.25	2.25	1.75	3.0	2.75	2.0	2.25	1.5	2.0	2.25	2.0	3.0	2.0	1.5
Averages.....	1.950	1.975	1.800	2.166	2.166	1.783	2.650	2.466	2.366	2.133	2.225	1.683	2.341	2.166	1.950	2.633	2.441	2.016
	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	3.0	1.1811	B¹	3.0	1.1811	B¹	3.5	1.3779	B¹	3.0	1.1811	B¹	3.25	1.2795	B¹	4.25	1.6732
	B²	2.75	1.0826	B²	3.25	1.2795	B²	3.5	1.3779	B²	3.0	1.1811	B²	3.0	1.1811	B²	4.0	1.5748
	B³	2.25	0.8858	B³	2.25	0.8858	B³	3.25	1.2795	B³	2.25	0.8858	B³	2.75	1.0826	B³	3.75	1.4763
Highest	.....	3.0	1.1811	.....	3.25	1.2795	.....	3.5	1.3779	.....	3.0	1.1811	.....	3.0	1.1811	.....	4.0	1.5748
Minimum measurements.	B¹	1.25	0.4921	B¹	1.75	0.6889	B¹	1.75	0.6889	B¹	1.5	0.5905	B¹	1.75	0.6889	B¹	1.5	0.5905
	B²	1.5	0.5905	B²	1.75	0.6889	B²	1.25	0.4921	B²	1.5	0.5905	B²	1.25	0.4921	B²	1.75	0.6889
	B³	1.25	0.4921	B³	1.5	0.5905	B³	1.5	0.5905	B³	1.0	0.3937	B³	1.25	0.4921	B³	1.5	0.5905
Lowest	.....	1.25	0.4921	.....	1.5	0.5905	.....	1.25	0.4921	.....	1.0	0.3937	.....	1.25	0.4921	.....	1.5	0.5905
Average measurements..	B¹	1.950	0.7677	B¹	2.166	0.8527	B¹	2.650	1.0433	B¹	2.133	0.8397	B¹	2.341	0.9216	B¹	2.633	1.0366
	B²	1.975	0.7775	B²	2.166	0.8527	B²	2.466	0.9708	B²	2.225	0.8759	B²	2.166	0.8527	B²	2.441	0.9610
	B³	1.8	0.7086	B³	1.783	0.7019	B³	2.366	0.9314	B³	1.683	0.6625	B³	1.950	0.7677	B³	2.016	0.7936
Average	.....	1.908	0.7511	.....	2.038	0.8023	.....	2.494	0.9818	.....	2.013	0.7925	.....	2.152	0.8472	.....	2.363	0.9303
Measurements above average..	.....	49		.....	32		.....	50		.....	32		.....	44		.....	42	
Measurements below average..	.....	41		.....	58		.....	40		.....	58		.....	46		.....	48	

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TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples	56. HIP, BETWEEN FOLD.			56. BELLY.			57. SHOULDER, TOP OF FOLD.			57. SHOULDER, BETWEEN FOLD.			57. HIP.			57. BELLY.		
Length of fiber in crimp	⅞ inch.			1⅛ inch.			⅞ inch.			1 1/16 inch.			⅞ inch.			⅞ inch.		
Number of crimps per inch	21.			20.			——			20.			20.			20.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.25	2.5	2.0	2.25	2.25	1.75	3.75	1.75	2.0	1.5	2.25	2.25	1.5	2.25	2.0	2.0	2.5	2.5
	2.25	2.5	2.25	2.25	2.5	1.5	2.25	2.25	2.0	2.0	1.5	1.5	2.0	1.75	2.0	2.0	2.0	2.0
	2.0	4.0	3.0	2.5	3.5	2.5	2.25	3.0	2.0	1.75	2.5	2.25	2.0	3.0	2.25	2.75	2.25	2.0
	2.5	3.0	1.5	1.75	2.25	1.5	3.25	2.5	2.75	1.75	1.75	1.75	2.5	2.25	3.25	2.25	1.75	2.0
	2.0	2.0	2.0	2.25	2.25	1.25	3.5	2.0	2.25	2.5	2.0	2.5	2.0	2.25	2.0	2.0	2.0	2.75
	2.5	2.25	1.5	2.0	2.0	2.0	3.25	2.25	2.25	2.5	2.0	2.0	2.75	2.25	2.5	2.25	1.75	3.0
	2.25	2.5	2.0	2.5	2.25	2.25	2.5	2.25	1.75	2.25	1.5	2.0	2.25	3.0	2.5	2.0	2.0	3.0
	2.5	1.5	2.0	2.0	2.5	2.25	4.25	2.25	2.25	2.0	2.5	1.5	2.0	2.0	3.25	2.0	1.75	1.75
	2.75	4.0	2.0	2.25	3.0	1.5	1.75	2.5	2.5	2.0	2.0	2.0	2.5	2.0	1.75	2.25	3.0	1.25
	2.75	3.75	2.0	2.25	2.25	1.5	2.5	1.5	4.75	1.25	2.25	1.5	2.5	2.5	2.5	2.75	2.5	2.0
	2.25	2.25	1.5	1.75	2.25	1.5	2.75	2.75	1.5	1.25	2.5	2.5	2.0	1.75	1.5	2.0	2.0	2.0
	1.75	2.0	2.0	2.0	2.0	1.75	1.75	2.75	1.5	2.5	2.5	2.0	2.5	2.0	1.75	2.0	2.25	2.0
	2.5	2.5	2.0	2.0	2.0	2.25	2.0	2.5	2.5	1.75	2.5	2.5	2.75	1.75	2.5	2.25	2.5	1.75
	1.75	2.5	2.25	1.5	2.5	2.25	4.0	3.25	2.0	2.25	2.25	3.0	2.0	2.0	1.25	2.5	2.5	1.75
	3.0	2.25	2.25	2.5	2.5	1.75	1.75	2.0	2.5	2.25	2.5	1.5	2.75	2.5	1.5	2.25	2.25	1.5
	3.0	2.5	1.75	2.75	1.75	2.0	2.5	3.75	2.0	1.75	2.75	2.5	2.75	2.25	1.25	2.25	2.25	2.0
	1.75	2.25	2.75	2.0	2.25	2.0	2.0	2.0	2.0	2.0	2.5	2.25	2.75	2.25	2.0	2.75	2.5	2.0
	2.25	1.75	2.5	2.25	2.0	2.0	1.75	1.75	2.5	2.5	1.75	2.0	2.75	1.75	1.5	2.0	2.5	1.25
	2.0	3.0	2.0	1.75	1.5	2.75	2.25	2.25	1.75	2.25	2.75	2.0	1.75	2.25	1.5	2.25	2.25	2.0
	2.25	2.25	2.5	2.0	2.0	1.75	2.5	2.25	2.5	1.75	2.25	2.75	1.75	2.0	1.75	2.5	2.5	2.0
	2.0	2.0	2.0	2.5	2.0	1.75	2.0	3.0	1.75	2.75	1.75	1.25	1.75	1.5	1.75	2.5	2.5	1.75
	2.5	2.25	2.75	2.5	1.75	1.75	2.5	2.0	3.25	3.5	2.75	2.5	2.25	2.0	1.75	1.25	2.75	2.25
	2.0	2.5	2.5	2.5	2.0	1.5	2.25	1.5	1.5	2.0	2.0	2.0	2.5	2.0	2.0	2.0	2.0	2.0
	2.75	2.25	2.0	2.0	2.0	1.75	2.25	3.25	3.0	2.0	2.0	2.25	1.75	3.0	2.0	2.5	2.0	2.0
	2.5	2.5	2.5	2.5	1.75	1.5	2.25	2.0	4.0	1.75	1.75	2.0	1.75	1.5	2.0	2.0	2.5	1.5
	2.5	3.0	1.75	2.75	2.0	2.0	2.25	3.0	1.5	2.75	1.75	1.75	1.75	1.5	2.0	2.5	2.75	2.0
	3.0	1.75	1.5	2.5	2.0	1.5	1.75	2.25	3.0	3.0	1.75	2.25	2.25	2.25	1.5	2.0	2.0	2.0
	2.0	2.0	1.0	2.0	2.5	1.75	2.25	2.5	3.0	3.0	2.25	2.25	2.5	2.25	2.0	2.25	2.0	2.0
	2.5	1.5	2.0	2.25	2.0	1.5	1.5	2.0	2.0	2.0	2.25	1.75	2.0	3.25	2.5	2.25	2.0	2.0
	2.5	2.5	1.25	2.0	2.5	1.5	1.75	3.5	4.5	1.75	2.75	2.5	2.5	1.5	1.75	2.0	2.25	2.0
Averages	2.316	2.450	2.000	2.200	2.133	1.816	2.408	2.416	2.291	2.175	2.183	2.091	2.275	2.183	1.966	2.216	2.258	2.000
	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	3.0	1.1811	B¹	2.75	1.0826	B¹	4.25	1.6732	B¹	3.5	1.3779	B¹	3.0	1.1811	B¹	2.75	1.0826
	B²	4.0	1.5748	B²	2.5	0.9842	B²	3.75	1.4763	B²	2.75	1.0826	B²	3.25	1.2795	B²	3.0	1.1811
	B³	2.75	1.0826	B³	2.75	1.0826	B³	4.75	1.8700	B³	3.0	1.1811	B³	3.25	1.2795	B³	3.0	1.1811
Highest	.....	4.0	1.5748	.....	2.75	1.0826	.....	4.75	1.8700	.....	3.5	1.3779	.....	3.25	1.2795	.....	3.0	1.1811
Minimum measurements.	B¹	1.75	0.6889	B¹	1.5	0.5905	B¹	1.5	0.5905	B¹	1.25	0.4921	B¹	1.5	0.5905	B¹	1.25	0.4921
	B²	1.5	0.5905	B²	1.5	0.5905	B²	1.5	0.5905	B²	1.5	0.5905	B²	1.5	0.5905	B²	1.75	0.6889
	B³	1.0	0.3937	B³	1.5	0.5905	B³	1.5	0.5905	B³	1.5	0.5905	B³	1.25	0.4921	B³	1.25	0.4921
Lowest	.....	1.0	0.3937	.....	1.5	0.5905	.....	1.5	0.5905	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.25	0.4921
Average measurements.	B¹	2.316	0.9118	B¹	2.200	0.8661	B¹	2.408	0.9480	B¹	2.175	0.8562	B¹	2.275	0.8956	B¹	2.216	0.8724
	B²	2.450	0.9645	B²	2.133	0.8397	B²	2.416	0.9511	B²	2.183	0.8594	B²	2.183	0.8594	B²	2.258	0.8890
	B³	2.000	0.7874	B³	1.816	0.7149	B³	2.391	0.9413	B³	2.091	0.8232	B³	1.966	0.7740	B³	2.000	0.7874
Average	.....	2.255	0.8877	.....	2.049	0.8066	.....	2.405	0.9468	.....	2.149	0.8460	.....	2.141	0.8429	.....	2.158	0.8496
Measurements above average	.....	55		.....	57		.....	55		.....	44		.....	43		.....	39	
Measurements below average	.....	55		.....	53		.....	52		.....	68		.....	47		.....	51	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples	58. SHOULDER, TOP FOLD.			58. SHOULDER, NOT ON FOLD.			58. HIP, CROSSING FOLD.			58. HIP, NOT ON FOLD.			58. BELLY.			68. SHOULDER.		
Length of fiber in crimp	1⅛ inches.			1¼ inches.			1 inch.			1⅛ inches.			1⅛ inches.			1⅛ inches.		
Number of crimps per inch	16.			20.			16.			20.			20.			20.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.25	2.5	2.25	2.5	1.75	1.75	3.25	1.75	4.0	2.0	1.5	2.0	1.75	2.5	2.0	2.0	3.83	2.33
	2.0	2.75	2.25	2.75	2.75	2.0	2.75	3.5	4.0	2.0	2.75	1.5	1.75	2.75	1.75	2.66	2.66	2.0
	2.25	2.0	2.5	2.0	2.0	1.75	2.0	4.25	2.5	2.0	2.5	2.0	1.75	2.5	2.0	2.0	2.33	2.0
	2.0	2.0	3.0	1.75	2.25	2.25	2.25	4.0	2.0	2.5	2.0	1.5	2.0	1.75	1.75	2.5	2.0	2.66
	2.25	2.5	3.0	1.5	2.0	1.75	2.25	4.0	3.25	2.25	2.0	2.0	2.5	3.0	2.5	2.0	2.66	2.66
	2.0	4.0	1.75	1.75	1.75	2.5	2.0	3.25	4.0	2.0	2.0	2.0	2.25	2.5	2.0	2.0	2.33	2.0
	1.75	3.0	2.5	2.25	1.5	1.75	2.5	2.75	2.0	2.5	2.0	1.5	2.0	2.0	1.75	2.0	2.33	2.33
	2.25	2.0	2.0	2.25	2.5	1.75	2.0	3.0	2.75	2.5	1.75	2.5	2.5	2.0	2.0	1.66	2.0	2.66
	2.0	2.25	1.75	2.0	1.75	2.25	2.5	3.0	2.75	1.75	2.5	1.75	1.75	2.5	2.0	1.66	2.66	2.0
	2.25	1.75	2.25	2.25	2.0	1.75	2.0	2.5	2.5	2.0	1.75	1.25	2.25	2.25	1.75	1.66	2.66	2.33
	1.75	1.75	3.0	1.5	3.0	2.25	3.25	2.25	3.5	2.5	2.25	1.75	2.25	1.5	2.0	1.66	2.0	2.33
	1.75	3.0	3.0	2.25	2.0	2.25	2.75	2.0	3.5	2.0	2.75	1.75	2.5	2.0	2.25	2.66	2.33	2.0
	1.5	2.5	1.75	1.75	2.5	1.75	2.5	1.75	2.0	2.25	1.75	2.25	1.75	1.5	1.75	2.33	2.0	2.0
	1.5	2.5	1.5	2.5	2.0	2.0	2.0	2.0	1.75	2.25	3.5	2.25	2.0	2.0	2.25	2.0	2.0	2.66
	2.75	2.0	3.5	2.25	2.25	1.75	1.75	2.5	2.5	2.00	2.5	1.75	2.25	2.0	2.0	2.0	2.33	2.0
	1.75	2.0	1.5	2.0	1.75	2.0	2.0	1.75	1.75	2.25	1.5	2.0	2.0	2.0	2.0	2.0	2.33	2.66
	2.75	2.75	2.0	2.25	1.75	2.0	2.5	2.5	3.0	2.25	2.0	1.5	2.0	2.25	1.75	2.0	2.33	2.0
	2.5	2.0	2.25	2.5	2.0	1.75	2.25	2.5	2.5	2.5	2.5	1.75	2.0	2.25	1.5	2.0	1.66	2.33
	2.25	2.75	1.75	1.75	2.25	1.75	3.5	2.5	2.0	2.75	2.25	3.0	2.0	2.0	2.0	2.0	2.33	1.66
	2.0	2.0	2.0	1.75	2.0	2.25	2.5	2.0	3.5	2.5	2.0	2.75	1.75	1.75	2.5	3.33	2.0	2.33
	2.0	2.5	2.0	1.75	2.0	1.5	1.75	3.0	3.75	2.25	1.5	2.0	2.0	2.0	2.0	2.0	2.66	2.66
	2.5	1.5	2.25	1.75	3.0	1.5	2.25	4.0	3.5	2.75	2.25	1.75	2.0	2.0	2.5	2.66	2.0	2.0
	2.0	2.0	2.25	1.75	2.5	1.5	2.0	3.0	2.0	1.5	2.0	2.25	1.5	1.75	2.0	2.33	2.0	2.0
	2.25	2.5	1.5	2.5	2.0	2.25	2.0	2.5	4.5	2.0	1.75	1.75	2.0	2.0	1.5	2.66	2.5	1.83
	2.0	2.75	1.75	2.25	1.5	2.25	2.5	2.5	3.25	2.25	1.75	2.5	2.5	2.0	2.25	2.33	2.66	2.33
	2.25	2.25	2.75	2.25	1.75	2.0	2.25	3.5	5.0	2.5	2.25	2.0	2.5	2.5	1.5	.....	.....	.....
	2.0	2.0	2.0	1.75	1.75	2.0	4.0	2.5	3.75	2.25	2.25	2.0	2.0	1.75	1.75	.....	.....	.....
	1.75	1.75	2.5	2.25	1.75	2.0	2.5	2.5	3.0	2.0	2.25	2.0	2.0	3.0	1.75	.....	.....	.....
	2.5	2.75	2.0	2.0	1.5	2.5	2.25	3.0	3.5	2.0	2.0	2.5	2.0	2.75	2.5	.....	.....	.....
	2.0	2.25	2.0	2.25	2.0	2.5	2.25	2.5	2.25	2.0	1.75	2.5	2.25	2.5	1.75	.....	.....	.....
Averages	2.091	2.341	2.216	2.066	2.050	1.975	2.408	2.691	2.808	2.208	2.116	1.966	2.058	2.175	1.966	2.220	2.346	2.252
	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction: Maximum measurements.	B¹	2.75	1.0826	B¹	2.75	1.0826	B¹	4.0	1.5748	B¹	2.75	1.0826	B¹	2.5	0.9842	B¹	3.33	1.3110
	B²	4.0	1.5748	B²	3.0	1.1811	B²	4.25	1.6732	B²	3.5	1.3779	B²	3.0	1.1811	B²	3.83	1.5078
	B³	3.5	1.3779	B³	2.5	0.9842	B³	5.0	1.9685	B³	2.75	1.0826	B³	2.5	0.9842	B³	2.66	1.0472
Highest	.....	4.0	1.5748	.....	3.0	1.1811	.....	5.0	1.9685	.....	3.5	1.3979	.....	3.0	1.1811	.....	3.83	1.5078
Minimum measurements.	B¹	1.5	0.5905	B¹	1.5	0.5905	B¹	1.75	0.6889	B¹	1.5	0.5905	B¹	1.5	0.5905	B¹	1.66	0.6535
	B²	1.5	0.5905	B²	1.5	0.5905	B²	1.75	0.6889	B²	1.5	0.5905	B²	1.5	0.5905	B²	1.66	0.6535
	B³	1.5	0.5905	B³	1.5	0.5905	B³	1.75	0.6889	B³	1.25	0.4921	B³	1.5	0.5905	B³	1.66	0.6535
Lowest	.....	1.5	0.5905	.....	1.5	0.5905	.....	1.75	0.6889	.....	1.25	0.4921	.....	1.5	0.5905	.....	1.66	0.6535
Average measurements.	B¹	2.091	0.8232	B¹	2.066	0.8133	B¹	2.408	0.9519	B¹	2.208	0.8692	B¹	2.058	0.8102	B¹	2.220	0.8740
	B²	2.341	0.9216	B²	2.050	0.8070	B²	2.691	1.0594	B²	2.116	0.8330	B²	2.175	0.8562	B²	2.346	0.9236
	B³	2.216	0.8724	B³	1.975	0.7775	B³	2.808	1.1055	B³	1.966	0.7740	B³	1.966	0.7740	B³	2.252	0.8866
Average	.....	2.216	0.8724	.....	2.030	0.7992	.....	2.635	1.0373	.....	2.096	0.8251	.....	2.066	0.8133	.....	2.272	0.8944
Measurements above average	.....	45		.....	44		.....	37		.....	38		.....	36		.....	38	
Measurements below average	.....	45		.....	56		.....	53		.....	52		.....	60		.....	37	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples	68. SIDE.			68. HIP.			68. BELLY.			69. SHOULDER.			69. SIDE.			69. HIP.		
Length of fiber in crimp	1¾ inches.			1¾ inches.			1 inch.			1¾ inches.			1¾ inches.			1¾ inches.		
Number of crimps per inch	20.			16.			20.			20.			20.			16.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.0	2.33	4.66	2.0	4.66	2.0	2.33	2.33	3.33	2.0	2.166	2.33	1.66	2.66	3.33	2.33	2.33	2.33
	2.166	2.33	2.166	2.66	2.66	2.0	3.0	2.33	2.33	2.33	2.0	2.166	2.66	2.5	2.33	2.5	2.33	2.0
	3.33	2.0	3.33	2.66	4.0	2.0	2.66	3.0	2.66	3.0	2.33	2.66	2.0	3.0	2.33	2.33	3.0	2.66
	2.5	2.0	2.66	2.166	2.5	2.66	3.33	2.0	3.0	1.66	2.5	3.0	2.33	2.33	2.66	2.66	3.0	3.0
	2.33	2.0	2.33	2.166	2.66	4.66	3.0	2.33	2.0	2.33	2.33	3.0	2.33	2.66	2.0	2.33	2.0	2.5
	2.66	2.83	2.166	2.0	3.0	2.66	2.66	3.0	3.166	3.0	2.66	2.0	2.66	2.33	2.0	3.33	2.33	2.0
	2.5	2.0	2.66	2.5	2.166	3.0	3.0	2.66	2.66	2.33	2.0	2.66	2.33	3.0	1.66	3.0	2.66	2.0
	3.0	2.33	2.33	3.66	2.33	2.33	2.0	2.0	2.66	1.66	2.0	2.33	2.66	3.33	2.0	2.0	3.66	2.33
	2.66	2.33	2.0	2.166	4.0	4.0	3.0	2.0	2.0	2.33	2.0	1.833	1.66	4.0	3.0	2.66	2.33	2.0
	2.5	4.66	2.66	3.66	2.33	3.0	2.66	3.0	2.0	2.66	2.66	2.0	2.33	2.66	1.66	2.66	2.33	2.0
	2.166	3.0	2.0	3.33	2.66	3.0	2.0	2.66	2.66	2.0	2.33	2.0	2.166	1.33	2.0	3.0	2.5	5.25
	2.33	2.33	2.66	2.0	2.33	3.33	2.33	3.0	2.66	2.33	2.66	1.66	1.33	2.33	3.66	5.66	2.33	2.33
	2.33	2.0	2.66	2.0	3.0	3.33	2.0	2.0	2.66	1.66	2.66	2.33	3.0	2.166	2.66	2.0	2.66	3.66
	2.0	3.0	2.66	2.5	4.33	2.0	2.0	2.0	2.166	2.66	1.66	2.0	2.33	2.33	2.66	2.66	1.66	2.0
	2.66	2.833	1.66	2.5	4.0	2.0	2.66	2.33	3.0	2.0	2.66	2.33	2.66	3.0	3.33	3.0	2.66	2.33
	2.0	2.66	2.33	3.833	2.0	2.0	2.0	2.33	2.0	2.166	3.0	2.333	2.33	3.33	2.0	1.66	2.33	2.0
	2.0	3.33	2.33	3.833	3.33	3.33	2.33	2.33	3.0	1.66	2.166	2.66	2.833	2.5	2.33	3.33	3.33	2.0
	2.0	2.5	2.66	2.66	2.66	2.33	2.33	2.33	3.0	2.0	2.5	3.0	3.0	3.0	1.66	2.33	2.33	3.66
	2.166	2.66	3.66	2.66	3.0	2.0	2.66	2.0	2.0	2.33	2.0	3.0	4.0	1.66	2.0	2.66	2.33	2.66
	2.33	2.0	3.66	4.0	3.33	2.66	2.0	2.166	2.33	2.0	3.0	2.0	2.0	2.66	2.66	2.66	3.0	5.66
	1.833	2.0	2.0	3.0	3.0	1.66	3.33	3.33	2.33	2.0	2.33	1.33	1.833	1.833	2.33	2.166	2.33	2.66
	3.0	2.66	3.5	2.66	2.66	3.166	2.66	2.66	3.66	3.33	1.66	2.33	2.66	2.33	2.33	2.0	2.0	2.33
	2.66	2.5	2.66	3.166	3.33	3.0	2.5	2.0	2.33	2.0	2.833	2.66	2.33	2.66	3.33	2.33	2.66	1.833
	2.33	2.5	2.0	2.0	2.33	2.66	2.0	2.66	2.33	2.0	2.5	2.66	1.66	2.66	2.0	2.5	2.66	2.0
	2.0	3.0	2.33	3.0	2.33	3.66	1.66	2.33	2.33	3.0	2.0	3.0	2.66	2.33	2.3	2.0	2.0	2.66
Averages	2.384	2.511	2.522	2.671	3.010	2.577	2.271	2.431	2.582	2.177	2.313	2.240	2.323	2.544	2.416	2.593	2.473	2.526

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	3.33	1.3110	B¹	4.0	1.5748	B¹	3.33	1.3110	B¹	3.33	1.3110	B¹	4.0	1.5748	B¹	5.66	2.2283
	B²	4.66	1.8346	B²	4.66	1.8346	B²	3.33	1.3110	B²	3.0	1.1811	B²	4.0	1.5748	B²	3.66	1.4409
	B³	4.66	1.8346	B³	4.66	1.8346	B³	3.66	1.4409	B³	3.0	1.1811	B³	3.66	1.4409	B³	5.66	2.2283
Highest	.....	4.66	1.8346	.....	4.66	1.8346	.....	3.66	1.4509	.....	3.33	1.3110	.....	4.0	1.5748	.....	5.66	2.2283
Minimum measurements.	B¹	1.833	0.7216	B¹	2.0	0.7874	B¹	1.66	0.6535	B¹	1.66	0.6535	B¹	1.33	0.5236	B¹	1.66	0.6535
	B²	2.0	0.7874	B²	2.0	0.7874	B²	2.0	0.7874	B²	1.66	0.6535	B²	1.33	0.5236	B²	1.66	0.6535
	B³	1.66	0.6535	B³	1.66	0.6535	B³	2.0	0.7874	B²	1.33	0.5236	B³	1.66	0.6535	B³	1.833	0.7216
Lowest	.....	1.66	0.6535	.....	1.66	0.6535	.....	1.66	0.6535	.....	1.33	0.5236	.....	1.33	0.5236	.....	1.66	0.6535
Average measurements.	B¹	2.384	0.9385	B¹	2.671	1.0515	B¹	2.271	0.8940	B¹	2.177	0.8570	B¹	2.323	0.9145	B¹	2.593	1.0208
	B²	2.511	0.9885	B²	3.010	1.1850	B²	2.431	0.9570	B²	2.313	0.9106	B²	2.544	0.9015	B²	2.473	0.9736
	B³	2.522	0.9929	B³	2.577	1.0145	B³	2.582	1.0165	B³	2.249	0.8854	B³	2.416	0.9511	B³	2.526	0.9944
Average	.....	2.472	0.9732	.....	2.752	1.0834	.....	2.428	0.9559	.....	2.246	0.8842	.....	2.427	0.9555	.....	2.530	0.9960
Measurements above average	.....	33		.....	32		.....	38		.....	37		.....	33		.....	29	
Measurements below average	.....	42		.....	41		.....	47		.....	38		.....	42		.....	46	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples..	69. BELLY.			70. SHOULDER.			70. SIDE.			70. HIP.			70. BELLY.			71. SHOULDER.		
Length of fiber in crimp	1¼ inches.			1¼ inches.			1¼ inches.			1⅛ inches.			1¼ inches.			1⅛ inches.		
Number of crimps per inch	20.			20.			20.			20.			20.			20.		
Number of section.....	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	D³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.0	2.33	2.66	3.0	3.0	2.66	1.5	2.33	3.0	2.0	3.0	2.0	2.5	1.75	3.0	2.5	2.0	2.25
	2.33	2.33	2.0	2.33	2.33	2.0	2.0	2.0	1.66	2.25	3.0	1.75	2.5	1.75	2.25	2.25	2.25	2.25
	2.33	2.33	2.66	2.166	2.66	2.0	2.0	2.66	1.66	2.25	2.25	2.0	2.0	2.25	2.5	2.0	2.25	2.0
	2.33	2.33	2.66	2.0	2.66	2.66	1.66	1.66	1.66	2.0	2.0	2.0	2.0	2.0	2.0	2.5	2.75	3.0
	2.33	2.33	2.66	1.33	2.0	2.0	2.0	1.833	2.33	2.0	2.0	1.75	1.75	2.5	2.5	1.75	2.5	1.75
	2.33	2.66	2.33	2.166	2.66	2.33	1.66	3.0	2.0	2.0	1.75	2.0	2.5	2.5	2.0	2.0	2.25	2.0
	2.0	2.33	2.33	2.0	2.66	2.0	1.66	2.0	1.66	2.0	2.25	1.75	3.25	2.0	4.0	1.75	2.5	2.0
	2.0	2.66	2.66	1.66	2.5	2.0	1.66	2.0	1.66	2.0	1.75	1.75	2.0	2.25	2.0	2.0	3.5	2.5
	2.66	2.33	2.66	1.66	2.833	2.33	2.0	3.0	2.33	1.75	2.5	2.25	2.0	2.25	2.0	2.0	2.0	2.5
	2.33	2.0	2.33	3.33	2.166	2.0	3.0	2.0	2.0	2.25	3.5	2.0	2.0	2.5	3.0	3.0	2.5	2.0
	1.66	2.0	2.33	2.166	2.0	2.66	1.833	1.5	2.66	2.25	2.0	2.0	2.0	3.5	1.75	2.25	2.0	2.5
	2.33	2.33	2.33	3.0	2.0	1.66	2.66	1.5	2.66	2.0	2.25	2.25	2.0	2.25	2.0	3.0	2.75	2.5
	2.33	2.166	2.66	1.66	2.0	2.66	2.66	1.66	2.33	2.5	1.75	2.50	2.25	2.5	2.25	2.5	2.25	2.25
	2.66	2.66	2.33	2.0	1.66	2.0	1.833	2.66	3.0	2.5	2.0	2.25	2.25	4.0	2.25	2.25	2.75	2.0
	2.0	2.166	2.66	1.66	1.66	1.833	1.5	1.66	2.33	2.0	2.0	3.25	1.75	2.75	2.0	2.0	2.25	2.25
	2.33	2.0	2.33	2.0	1.66	3.0	3.0	2.0	2.33	2.25	2.0	2.0	2.0	2.5	2.75	2.5	2.5	2.25
	2.0	2.33	2.66	1.66	2.0	2.0	1.833	2.33	2.66	2.0	3.25	1.375	3.25	2.5	2.0	2.25	2.5	2.25
	2.66	2.0	2.66	1.66	2.33	1.66	1.833	2.66	2.0	1.5	2.5	2.125	3.25	2.25	1.5	2.0	2.25	2.25
	2.66	2.166	2.0	2.0	2.0	1.66	2.0	2.66	2.0	2.5	1.75	1.75	2.0	3.75	2.625	2.25	2.0	2.5
	2.33	2.0	2.33	1.5	2.0	2.0	1.66	2.33	2.0	2.25	2.0	1.75	1.5	3.25	4.0	1.75	2.75	2.5
	2.66	2.66	2.66	1.5	2.33	2.66	2.0	1.66	1.5	2.75	2.0	2.0	2.0	2.75	1.875	2.0	3.5	2.5
	2.33	2.66	3.0	2.0	2.0	2.0	2.66	1.33	2.0	1.75	2.0	1.75	2.5	3.25	2.0	1.75	2.25	2.5
	2.66	2.0	2.66	1.66	2.0	2.0	1.66	3.33	1.5	2.5	2.0	2.0	2.0	2.5	3.375	2.5	2.25	2.25
	1.66	2.0	2.66	2.0	1.66	1.66	2.0	2.0	1.833	2.375	2.25	2.0	3.0	3.0	3.25	2.5	2.0	2.0
	2.0	2.66	2.66	1.66	2.5	2.33	1.66	2.0	2.0	2.0	3.5	1.5	1.5	2.75	2.5	2.5	2.0	2.25
Averages	2.276	2.297	2.515	1.993	2.213	2.153	1.997	2.190	2.110	2.145	2.290	1.910	2.230	2.610	2.455	2.230	2.420	2.280

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	2.66	1.0472	B¹	3.33	1.3110	B¹	3.0	1.1811	B¹	2.75	1.0826	B¹	3.25	1.2795	B¹	3.0	1.1811
	B²	2.66	1.0472	B²	3.0	1.1811	B²	3.33	1.3110	B²	3.5	1.3779	B²	4.0	1.5748	B²	3.5	1.3779
	B³	3.0	1.1811	B³	3.0	1.1811	B³	3.0	1.1811	B³	3.25	1.2795	B³	4.0	1.5748	B³	3.0	1.1811
Highest	.....	3.0	1.1811	.....	3.33	1.3110	.....	3.33	1.3110	.....	3.5	1.3779	.....	4.0	1.5748	.....	3.5	1.3779
Minimum measurements.	B¹	1.66	0.6535	B¹	1.33	0.5236	B¹	1.5	0.5905	B¹	1.5	0.5905	B¹	1.5	0.5905	B¹	1.75	0.6889
	B²	2.0	0.7874	B²	1.66	0.6535	B²	1.33	0.5236	B²	1.75	0.6889	B²	1.75	0.6889	B²	2.0	0.7874
	B³	2.0	0.7874	B³	1.66	0.6535	B³	1.5	0.5905	B³	1.375	0.5413	B³	1.5	0.5905	B³	1.75	0.6889
Lowest	.....	1.66	0.6535	.....	1.33	0.5236	.....	1.33	0.5236	.....	1.375	0.5413	.....	1.5	0.5905	.....	1.75	0.6889
Average measurements..	B¹	2.276	0.8960	B¹	1.993	0.7846	B¹	1.997	0.7862	B¹	2.145	0.8444	B¹	2.230	0.8779	B¹	2.230	0.8779
	B²	2.297	0.9043	B²	2.213	0.8712	B²	2.190	0.8622	B²	2.290	0.9015	B²	2.610	1.0275	B²	2.420	0.9527
	B³	2.515	0.9901	B³	2.153	0.8476	B³	2.110	0.8307	B³	1.910	0.7519	B³	2.455	0.9667	B³	2.280	0.8976
Average	.....	2.363	0.9303	.....	2.119	0.8342	.....	2.099	0.8263	.....	2.115	0.8326	.....	2.431	0.9570	.....	2.310	0.9059
Measurements above average..	.....	27		.....	28		.....	25		.....	29		.....	35		.....	29	
Measurements below average..	.....	48		.....	47		.....	50		.....	46		.....	40		.....	46	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples	71. SIDE.			71. HIP.			71. BELLY.			72. SHOULDER.			72. SIDE.			72. HIP.		
Length of fiber in crimp	1¼ inches.			1⅛ inches.			1⅛ inches.			1¼ inches.			1⅛ inches.			1 inch.		
Number of crimps per inch	20.			20.			16.			20.			20.			16.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.0	2.25	2.25	3.25	2.25	2.25	2.25	2.0	2.75	1.75	2.5	2.5	2.0	2.0	2.75	2.0	2.5	2.25
	2.25	2.0	2.5	2.0	2.0	2.0	2.5	3.0	2.25	1.75	2.5	1.75	2.0	2.0	2.5	3.25	2.0	2.5
	2.0	2.25	2.0	2.0	2.25	2.0	2.5	1.75	1.75	2.0	2.0	1.75	1.875	2.0	2.25	2.0	2.5	2.5
	1.75	1.75	2.0	2.0	2.0	3.0	2.5	2.75	2.5	2.25	2.0	1.75	2.5	2.25	1.75	5.0	2.0	2.5
	2.25	2.25	2.0	2.5	2.5	2.75	2.5	2.75	2.0	2.0	1.5	1.75	2.0	3.0	2.25	2.25	1.5	2.25
	2.0	2.0	2.0	2.25	2.0	2.0	2.25	2.75	2.5	2.0	2.6	2.0	1.75	2.5	2.5	2.75	2.25	2.5
	2.0	3.0	2.0	3.0	3.0	2.0	1.75	2.75	2.5	2.5	1.5	1.75	2.0	2.25	1.75	2.5	2.0	2.25
	2.0	2.0	2.5	1.50	2.0	2.0	3.0	2.5	3.0	2.0	2.125	2.0	2.25	2.5	3.0	2.5	2.25	1.75
	2.25	3.0	2.0	2.5	2.0	3.5	2.0	2.75	2.5	2.5	2.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0
	1.5	2.25	2.25	3.0	2.25	1.5	1.75	3.0	2.0	2.25	2.0	2.5	2.5	2.5	2.25	2.75	2.0	2.5
	2.0	2.0	2.25	2.25	2.5	2.0	2.25	2.5	2.5	2.0	2.5	2.5	2.5	2.0	2.25	2.25	2.0	2.0
	2.0	2.5	2.0	2.25	2.5	2.25	2.25	2.0	2.75	2.125	2.0	2.0	2.25	2.0	2.25	2.5	2.0	2.75
	1.75	2.5	2.5	2.25	2.25	2.25	2.5	2.25	2.75	2.0	2.0	2.25	2.0	1.5	2.5	2.5	2.25	3.0
	2.0	2.5	2.5	2.5	2.5	2.0	2.5	1.75	2.5	2.275	2.5	1.75	1.75	2.5	2.0	2.0	2.0	2.5
	1.5	2.0	1.75	2.0	2.25	2.25	2.25	2.25	2.0	2.0	2.5	1.75	2.5	2.0	2.0	2.0	2.25	1.75
	1.5	2.5	2.5	2.5	2.25	3.0	1.75	2.5	2.0	2.5	2.0	1.50	1.75	2.0	2.0	2.0	2.25	3.0
	2.0	2.25	2.0	2.25	2.5	2.0	1.75	3.0	2.2	3.0	2.5	2.0	2.0	2.0	2.25	2.0	2.0	2.5
	2.0	1.75	2.25	1.75	2.0	2.0	1.75	3.0	2.25	2.25	2.5	2.25	2.0	2.25	1.5	2.25	2.50	2.5
	2.25	2.0	1.75	1.75	2.25	2.25	3.0	2.5	1.75	2.25	1.75	2.0	2.0	2.5	1.5	2.0	2.50	2.75
	2.0	2.5	2.50	2.0	2.0	1.5	2.0	2.0	2.5	1.625	2.25	2.25	1.5	2.0	2.0	2.5	2.0	2.25
	2.0	2.375	1.75	2.0	2.5	2.5	2.5	2.0	2.0	2.75	2.0	2.5	1.75	2.0	2.0	2.5	2.0	2.25
	1.75	1.75	2.0	3.0	2.5	2.0	2.5	2.75	2.25	2.0	2.0	2.25	2.0	2.0	2.0	1.75	1.25	1.5
	1.50	2.5	2.25	2.25	2.5	2.5	1.75	2.0	2.5	2.5	2.0	1.75	2.0	2.0	1.75	2.25	2.0	2.5
	1.75	2.0	2.0	1.5	3.0	2.75	2.0	2.5	3.0	2.25	2.25	2.0	1.5	2.0	1.75	2.75	1.5	2.0
	2.0	2.75	3.0	2.0	2.0	2.0	2.5	3.5	2.75	2.0	2.0	2.0	1.75	1.5	2.0	1.5	2.5	2.0
Averages	1.920	2.245	2.220	2.250	2.350	2.250	2.330	2.460	2.360	2.105	2.175	2.025	2.005	2.130	2.070	2.410	2.080	2.330

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction.																		
Maximum measurements	B¹	2.25	0.8858	B¹	3.25	1.2795	B¹	3.0	1.1811	B²	2.75	1.0826	B²	2.5	0.9842	B¹	5.0	1.9685
	B²	3.0	1.1811	B²	3.0	1.811	B²	3.5	1.3779	B²	2.5	0.9842	B²	2.5	0.9842	B²	2.5	0.9842
	B³	3.0	1.1811	B³	3.5	1.3779	B³	3.0	1.1811	B³	2.5	0.9842	B³	2.75	1.0826	B³	3.0	1.1811
Highest		3.0	1.1811		3.5	1.3779		3.5	1.3779		2.75	1.0826		2.75	1.0826		5.0	1.9685
Minimum measurements	B¹	1.5	0.5905	B¹	1.5	0.5905	B¹	1.75	0.6889	B¹	1.625	0.6307	B¹	1.5	0.5905	B¹	1.5	0.5905
	B²	1.75	0.6889	B²	2.0	0.7874	B²	1.75	0.6889	B²	1.5	0.5905	B²	1.5	0.5905	B²	1.25	0.4921
	B³	1.75	0.6889	B³	1.5	0.5905	B³	1.75	0.6889	B³	1.75	0.6889	B³	1.5	0.5905	B³	1.5	0.5905
Lowest		1.5	0.5905		1.5	0.5905		1.75	0.6889		1.5	0.5905		1.5	0.5905		1.25	0.4921
Average measurements	B¹	1.920	0.7559	B¹	2.250	0.8858	B¹	2.330	0.9173	B¹	2.105	0.8287	B¹	2.005	0.7893	B¹	2.410	0.9488
	B²	2.245	0.8838	B²	2.350	0.9251	B²	2.460	0.9685	B²	2.175	0.8562	B²	2.130	0.8385	B²	2.080	0.8188
	B³	2.220	0.8740	B³	2.250	0.8858	B³	2.360	0.9291	B³	2.020	0.7952	B³	2.070	0.8149	B³	2.330	0.9173
Average		2.128	0.8377		2.283	0.8988		2.383	0.9381		2.100	0.8267		2.068	0.8141		2.270	0.8936
Measurements above average			31			26			41			31			25			29
Measurements below average			44			49			34			11			50			40

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples	72. BELLY.			73. SHOULDER.			73. SIDE.			73. HIP.			73. BELLY.			74. SHOULDER.		
Length of fiber in crimp	1⅛ inches.			1⅛ inches.			1⅛ inches.			1¼ inches.			1¼ inches.			1⅛ inches.		
Number of crimps per inch	20.			20.			20.			16.			20.			16.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.25	3.25	2.75	1.75	2.25	1.75	2.25	3.0	1.75	3.25	1.75	2.25	1.75	3.0	3.0	4.	2.25	2.0
	2.5	2.75	2.25	2.0	1.75	2.25	2.0	3.0	2.5	2.5	1.50	2.25	2.25	2.75	2.25	3.5	2.25	2.0
	2.5	2.75	2.0	2.25	2.25	1.75	2.75	2.25	2.5	2.0	1.25	2.5	2.0	4.25	2.75	2.5	2.5	2.0
	2.5	3.0	2.0	1.75	2.5	2.25	2.0	2.25	2.5	2.25	1.75	2.5	2.0	2.5	2.50	2.5	3.0	2.5
	2.25	3.25	2.0	2.0	1.75	2.0	2.0	2.25	1.5	2.25	2.0	2.0	2.0	2.25	2.50	2.5	2.0	4.0
	2.5	3.25	2.0	2.0	2.0	1.75	2.5	2.5	2.0	2.25	2.0	2.5	2.0	2.75	2.0	2.5	4.0	2.0
	2.25	2.5	2.5	2.0	1.75	1.5	2.5	2.25	2.5	2.0	1.75	2.5	1.5	2.0	3.25	2.0	2.5	2.5
	1.75	2.5	2.0	2.0	1.75	2.0	2.0	2.25	2.5	2.25	1.5	2.25	2.0	2.25	2.75	2.0	2.25	3.0
	2.0	2.5	2.5	2.0	2.75	2.0	2.0	2.0	1.5	2.5	1.5	2.5	1.25	2.0	1.75	3.0	2.5	2.5
	2.5	2.0	2.5	2.0	2.5	2.25	1.5	1.75	2.25	2.25	2.0	2.25	2.25	3.0	2.5	2.0	3.0	2.0
	2.0	2.0	2.75	2.0	2.25	2.5	2.0	2.5	2.0	2.0	2.0	2.5	1.75	2.25	2.5	1.5	2.75	2.0
	2.75	2.5	3.0	2.5	2.5	2.0	2.5	1.75	2.0	1.75	2.0	2.0	1.75	2.75	2.5	2.5	2.75	2.75
	3.0	2.5	2.5	1.5	1.5	2.5	2.25	2.0	2.25	2.25	2.0	2.75	2.0	2.5	2.0	2.75	2.5	1.5
	2.5	2.5	2.5	2.25	2.0	2.5	1.75	2.75	2.25	3.5	1.5	2.25	3.0	2.5	2.0	2.5	2.25	3.0
	1.75	2.25	2.0	1.5	2.25	2.5	2.25	2.25	2.25	2.25	1.75	2.5	1.75	2.0	2.5	3.0	2.25	3.0
	3.0	3.0	2.25	2.5	1.75	2.0	1.5	1.75	2.75	1.75	1.75	2.5	3.25	2.5	2.25	3.0	2.5	2.0
	2.5	2.5	2.5	2.0	3.5	2.5	2.0	1.75	2.50	1.75	1.75	3.5	2.0	2.0	2.5	2.0	2.0	2.0
	2.5	2.75	2.5	3.0	1.5	3.0	2.0	2.0	1.75	4.0	2.5	2.5	2.25	2.0	2.5	2.5	3.0	2.25
	2.75	2.5	2.75	2.25	1.75	2.0	2.5	2.0	2.0	2.0	1.5	1.75	2.25	2.25	2.5	2.5	2.25	1.75
	2.25	3.25	2.75	2.0	2.0	2.5	2.0	3.0	1.5	2.25	1.5	1.25	1.75	2.5	2.0	2.5	2.5	2.75
	2.25	2.5	2.25	2.0	2.0	2.5	1.75	2.5	2.5	2.0	1.5	2.0	2.0	2.0	2.875	2.5	2.5	3.0
	1.5	2.5	2.25	2.5	2.75	2.25	1.5	2.25	2.0	3.25	1.5	2.25	2.0	2.75	3.0	2.5	2.25	2.0
	2.5	2.0	2.25	2.0	2.25	2.25	2.25	2.0	2.5	4.25	2.0	3.0	2.5	2.75	2.5	2.5	2.375	2.25
	2.0	2.5	2.5	2.0	2.0	1.5	2.5	2.0	2.25	2.0	1.75	2.0	2.0	2.0	2.375	2.75	1.875	2.5
	2.0	2.75	3.0	1.75	2.0	2.0	2.5	2.0	2.75	2.0	2.0	2.20	2.5	2.25	2.0	1.5	3.5	2.25
Average	2.330	2.630	2.450	2.070	2.130	2.150	2.110	2.240	2.210	2.440	1.760	2.360	2.060	2.470	2.490	2.520	2.580	2.380

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reductions:																		
Maximum measurements.	B¹	3.00	1.1811	B¹	3.0	1.1811	B¹	2.75	1.0826	B¹	4.25	1.6732	B¹	3.25	1.2795	B¹	4.00	1.5748
	B²	3.25	1.2795	B²	3.5	1.3779	B²	3.00	1.1811	B²	2.50	0.9842	B²	4.25	1.6732	B²	4.00	1.5748
	B³	3.00	1.1811	B³	3.0	1.1811	B³	2.75	1.0826	B³	3.50	1.3779	B³	3.25	1.2795	B³	4.00	1.5748
Highest	.....	3.25	1.2795	.....	3.5	1.3779	.....	3.0	1.1811	.....	4.25	1.6732	.....	4.25	1.6732	.....	4.0	1.5748
Minimum measurements.	B¹	1.50	0.5905	B¹	1.50	0.5905	B¹	1.50	0.5905	B¹	1.75	0.6889	B¹	1.25	0.4921	B¹	1.50	0.5905
	B²	2.00	0.7874	B²	1.50	0.5905	B²	1.75	0.6889	B²	1.50	0.5905	B²	2.00	0.7874	B²	1.875	0.7381
	B³	2.00	0.7874	B³	1.50	0.5905	B³	1.50	0.5905	B³	1.25	0.4921	B³	1.75	0.6889	B²	1.50	[illegible]
Lowest	.....	1.5	0.5905	.....	1.50	0.5905	.....	1.5	0.5905	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.5	0.5905
Average measurements.	B¹	2.330	0.9173	B¹	2.070	0.8149	B¹	2.110	0.8307	B¹	2.440	0.9603	B¹	2.060	0.8110	B¹	2.520	0.992
	B²	2.630	1.0364	B²	2.130	0.8385	B²	2.240	0.8818	B²	1.760	0.6929	B²	2.470	0.9724	B²	2.580	1.0157
	B³	2.450	0.9645	B³	2.150	0.8464	B³	2.210	0.8700	B³	2.360	0.9291	B³	2.490	0.9803	B³	2.380	0.9370
Average	.....	2.470	0.9724	.....	2.116	0.8330	.....	2.186	0.8606	.....	2.186	0.8606	.....	2.340	0.9212	.....	2.487	0.9791
Measurements above average	.....	49		.....	31		.....	[illegible]		.....	35		.....	35		.....	[illegible]	
Measurements below average	.....	26		.....	44		.....	35		.....	40		.....	[illegible]		.....	[illegible]	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples..	74. SIDE.			74. HIP.			74. BELLY.			75. SHOULDER.			75. SIDE.			75. HIP.		
Length of fiber in crimp.....	1½ inches.			1½ inches.			1½ inches.			1½ inches.			1½ inches.			1½ inches.		
Number of crimps per inch	10.			14.			20.			16.			20.			16.		
Number of section.....	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	1.75	2.5	2.75	4.5	2.5	2.5	2.25	4.0	2.0	2.0	2.5	4.25	3.0	2.75	2.5	2.75	2.75	2.0
	2.5	2.25	3.0	2.0	2.25	2.5	1.75	3.25	3.5	2.375	2.75	2.25	2.5	2.5	2.5	2.5	3.5	2.75
	2.5	2.0	2.0	2.25	2.25	2.5	2.0	2.75	2.25	2.5	3.0	2.25	2.0	2.25	3.0	3.0	3.0	2.5
	1.5	3.0	2.5	2.0	2.25	2.5	3.0	2.25	2.75	2.0	3.0	2.5	2.25	2.5	2.0	2.75	3.0	2.0
	2.25	2.0	2.0	2.25	3.0	2.0	1.5	2.0	2.75	3.0	2.25	2.75	1.75	2.0	1.5	2.25	2.25	2.0
	3.0	3.0	2.25	3.25	2.25	1.5	2.5	1.75	2.5	2.25	2.5	3.75	2.0	2.25	2.5	2.25	2.75	2.0
	2.0	2.5	2.0	1.75	2.25	5.0	1.75	2.25	3.25	2.25	2.5	3.0	2.75	2.5	2.25	2.5	2.025	1.75
	2.5	2.75	2.0	3.25	2.5	2.0	3.0	3.0	2.25	2.25	2.75	2.25	1.75	2.5	2.0	1.5	2.5	2.0
	3.5	2.25	3.25	1.5	2.25	2.25	2.0	2.0	2.25	2.25	1.5	3.0	3.25	2.25	2.5	2.0	3.0	2.0
	2.0	2.5	3.25	2.0	3.0	2.0	2.0	2.5	2.5	3.0	2.75	2.75	1.75	2.0	3.25	2.25	2.75	2.25
	2.75	2.25	2.0	2.5	2.0	2.25	2.25	2.25	2.5	2.5	2.75	2.75	2.5	2.875	2.0	2.5	3.0	2.0
	2.0	3.5	3.0	3.5	2.25	1.75	3.0	2.5	2.75	3.0	3.0	2.5	2.5	2.25	2.5	2.25	3.5	3.0
	2.0	3.25	2.0	2.25	2.5	2.0	3.5	2.0	2.25	3.0	2.5	2.5	2.0	1.75	2.5	2.25	2.5	1.75
	2.5	2.0	2.5	2.5	3.5	1.75	2.25	3.0	2.25	2.0	2.25	2.25	2.75	2.25	2.25	3.0	2.75	1.75
	2.0	3.5	2.75	2.5	2.25	2.25	2.0	3.25	2.25	2.0	2.5	1.75	3.0	1.75	2.25	2.25	2.25	2.25
	3.0	3.25	2.25	2.5	2.25	2.75	2.25	3.0	2.5	2.0	2.5	2.25	3.0	2.125	2.25	2.75	2.25	2.0
	2.0	2.5	2.5	1.75	2.0	2.0	3.75	3.0	2.25	2.5	2.25	2.5	1.5	2.25	3.0	3.0	2.75	2.25
	2.25	2.75	3.25	2.0	2.25	2.25	2.25	2.75	3.0	2.75	2.25	2.5	1.75	2.5	3.25	1.5	2.5	2.5
	2.0	2.75	2.5	2.25	3.0	1.5	2.25	3.25	2.0	2.25	3.0	2.5	2.0	2.25	2.25	1.5	3.5	2.0
	2.0	2.0	2.0	2.0	6.0	2.5	2.25	2.5	1.75	2.0	2.5	2.5	1.75	2.5	2.25	1.75	2.5	2.0
	2.5	1.5	2.25	2.5	3.75	2.0	2.0	2.0	2.25	2.25	2.5	2.5	2.5	2.5	2.25	3.5	2.5	2.75
	2.5	2.0	3.0	2.0	3.75	3.0	2.25	3.0	2.0	2.0	2.0	2.0	3.0	3.75	2.5	2.75	3.5	2.25
	2.25	3.0	2.5	2.0	2.25	2.25	2.5	2.5	3.5	3.5	2.0	2.0	2.25	2.25	3.5	2.5	2.75	3.0
	2.5	2.5	1.75	2.25	2.5	2.0	2.25	2.0	2.75	2.5	2.25	2.5	2.25	3.0	2.0	3.75	2.25	2.5
	3.0	2.5	2.25	2.25	2.5	2.25	3.0	2.25	3.25	2.5	2.75	2.5	2.25	3.0	3.0	2.25	2.75	3.25
Averages	2.350	2.368	2.360	2.350	2.720	2.360	2.300	2.400	2.410	2.345	2.380	2.360	2.200	2.320	2.270	2.480	2.705	2.180
Recapitulation and reductions: Maximum measurements.	B¹	No. of section.		B¹	No. of section.		B¹	No. of section.		B¹	No. of section.		B¹	No. of section.		B¹	No. of section.	
	B²	In centimillimeters.		B²	In centimillimeters.		B²	In centimillimeters.		B²	In centimillimeters.		B²	In centimillimeters.		B²	In centimillimeters.	
	B³	In thousandths of inch.		B³	In thousandths of inch.		B³	In thousandths of inch.		B³	In thousandths of inch.		B³	In thousandths of inch.		B³	In thousandths of inch.	
	B¹	3.50	1.3779	B¹	4.50	1.7716	B¹	3.75	1.4763	B¹	3.50	1.3779	B¹	3.75	1.4763	B¹	3.75	1.4763
	B²	3.50	1.3779	B²	6.00	2.3622	B²	4.00	1.5748	B²	3.00	1.1811	B²	3.75	1.4763	B²	3.50	1.3779
	B³	3.25	1.2795	B³	5.00	1.9685	B³	3.25	1.2795	B³	3.00	1.1811	B³	3.25	1.2795	B³	3.25	1.2795
Highest	.....	3.50	1.3779	.....	6.00	2.3622	.....	4.00	1.5748	.....	3.50	1.3779	.....	3.75	1.4763	.....	3.75	1.4763
Minimum measurements.	B¹	1.50	0.5905	B¹	1.50	0.5905	B¹	1.50	0.5905	B¹	2.00	0.7874	B¹	1.50	0.5905	B¹	1.50	0.5905
	B²	1.50	0.5905	B²	2.00	0.7874	B²	1.75	0.6889	B²	1.50	0.5905	B²	1.75	0.6889	B²	2.25	0.8858
	B³	1.75	0.6889	B³	1.500	0.5905	B³	1.75	0.6889	B³	1.75	0.6889	B³	1.50	0.5905	B³	1.75	0.6889
Lowest	.....	1.50	0.5905	.....	1.50	0.5905	.....	1.50	0.5905	.....	1.50	0.5905	.....	1.50	0.5905	.....	1.50	0.5905
Average measurements..	B¹	2.250	0.9251	B¹	2.390	0.9409	B¹	2.300	0.9055	B¹	2.345	0.9232	B¹	2.200	0.8661	B¹	2.486	0.9763
	B²	2.480	0.9763	B²	2.720	1.0709	B²	2.486	0.9685	B²	2.380	0.9409	B²	2.320	0.9133	B²	2.705	1.0649
	B³	2.380	0.9370	B³	2.360	0.9055	B³	2.410	0.9488	B³	2.360	0.9291	B³	2.270	0.8938	B³	2.180	0.8582
Average	.....	2.402	0.9460	.....	2.470	0.9724	.....	2.390	0.9409	.....	2.365	0.9311	.....	2.263	0.8911	.....	2.455	0.9667
Measurements above average..	.....	23		.....	30		.....	29		.....	27		.....	29		.....	23	
Measurements below average..	.....	49		.....	45		.....	46		.....	38		.....	46		.....	36	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples..	75. BELLY.			76. SHOULDER.		76. SIDE.			76. HIP.			76. BELLY.			77. SHOULDER.		
Length of fiber in crimp.....	1⅞ inches.			1⅞ inches.		1⅞ inches.			1¾ inches.			1⅞ inches.			1⅞ inches.		
Number of crimps per inch....	20.			16.		20.			16.			20.			20.		
Number of section.....	B¹.	B².	B³.	B¹.	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.25	2.0	4.0	2.0	2.75	2.25	1.75	2.0	2.0	2.5	1.75	3.0	2.0	2.25	1.5	2.25	2.25
	1.75	2.25	2.5	2.0	2.0	1.75	2.0	1.75	2.375	2.0	2.25	1.875	2.5	2.0	1.5	2.0	2.5
	2.5	2.0	2.75	1.75	2.875	1.875	2.5	1.5	2.0	2.5	2.75	2.5	2.25	2.0	2.0	2.5	2.0
	2.75	2.5	2.5	2.0	2.0	2.25	2.0	1.625	2.0	2.25	1.75	2.5	2.5	2.25	2.0	2.0	2.0
	1.75	2.0	2.5	2.0	2.125	1.5	1.75	2.0	3.25	2.0	2.25	2.0	2.5	2.0	2.0	1.75	2.0
	2.0	3.0	2.5	1.75	2.5	2.25	1.75	2.25	1.75	2.0	2.0	3.0	2.0	2.0	2.0	1.75	1.5
	2.5	2.5	2.0	3.25	2.75	2.0	1.5	1.75	1.75	2.0	2.0	2.5	2.5	2.75	2.0	1.625	2.125
	2.5	3.0	2.5	2.25	2.25	1.5	1.75	2.0	2.0	2.5	1.5	2.5	2.75	3.0	1.5	2.5	2.5
	2.25	2.5	2.25	2.0	3.125	1.75	2.25	2.0	2.25	2.0	2.0	2.5	4.0	2.0	2.0	2.0	2.0
	3.0	2.25	2.0	1.5	2.25	1.75	2.0	1.75	2.0	2.0	1.75	3.0	2.5	2.5	2.25	2.0	2.0
	2.5	2.25	3.75	2.75	2.25	2.5	2.5	2.0	2.5	1.75	3.0	2.5	2.5	3.0	1.5	1.625	2.0
	3.0	2.5	2.5	2.25	2.75	2.25	2.5	2.0	1.75	3.0	1.75	2.5	3.0	2.5	2.0	2.0	2.0
	2.75	3.5	2.0	2.25	2.5	2.25	2.5	2.75	2.5	2.5	2.75	2.5	2.25	2.0	1.75	1.5	2.5
	1.75	3.0	2.75	1.75	1.875	2.0	2.0	2.75	3.0	4.0	1.5	2.25	2.25	2.0	1.75	1.75	1.75
	3.75	3.25	3.0	2.25	2.0	2.0	2.75	2.0	2.0	2.0	2.75	2.25	3.5	2.5	1.5	1.5	1.5
	1.25	3.0	2.25	1.75	3.875	2.0	2.25	1.5	2.0	2.75	1.75	2.0	3.0	2.5	2.0	2.25	1.5
	3.0	2.5	1.5	2.0	2.125	2.0	2.0	1.75	2.25	1.5	2.25	2.5	2.75	2.0	1.5	2.0	2.0
	2.75	2.5	2.25	2.25	2.0	2.5	2.0	1.75	2.5	3.0	3.0	2.5	2.5	2.5	1.75	1.75	2.0
	2.25	2.5	2.0	2.0	1.875	2.75	2.5	1.75	3.0	2.0	2.0	2.5	2.5	2.25	2.0	2.0	1.5
	3.0	2.0	2.0	2.0	2.25	1.75	2.0	2.125	2.0	2.0	2.0	3.0	2.0	2.0	2.0	2.0	2.0
	1.5	2.0	2.0	2.5	2.75	1.75	1.75	2.75	2.0	2.0	2.0	2.5	2.25	2.0	1.75	2.0	2.25
	1.75	2.5	2.0	1.75	2.75	2.0	1.5	2.5	3.0	2.5	2.5	2.5	3.25	2.25	1.75	2.5	2.0
	2.75	2.25	2.0	1.5	2.0	1.75	2.0	2.5	2.125	2.5	2.5	3.0	2.25	2.0	1.75	2.25	1.5
	1.5	2.75	2.25	2.25	2.5	1.75	2.5	2.0	2.125	1.875	1.75	2.0	2.5	2.0	2.0	2.0	2.25
	2.0	2.25	2.5	2.5	1.875	2.0	2.5	2.25	2.25	2.0	1.5	2.75	2.25	3.0	2.0	2.0	1.75
Averages	2.351	2.410	2.410	2.090	2.400	2.06	2.100	2.040	2.255	2.285	2.110	2.485	2.580	2.290	1.830	1.980	1.975

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeter.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	3.75	1.4763	B¹	3.250	1.2795	B¹	2.75	1.0826	B¹	3.25	1.2795	B¹	3.00	1.1811	B¹	2.25	0.8858
	B²	3.25	1.2795	B²	3.875	1.5255	B²	2.75	1.0826	B²	4.00	1.5748	B²	4.00	1.5748	B²	2.25	0.8858
	B³	4.00	1.5748	.....	.....	.....	B³	2.75	1.0826	B³	3.00	1.1811	B³	3.00	1.1811	B³	2.50	0.9842
Highest	.....	4.00	1.5748	.....	3.875	1.5255	.....	2.75	1.0826	.....	4.00	1.5748	.....	4.00	1.5748	.....	2.50	0.9842
Minimum measurements.	B¹	1.25	0.4921	B¹	1.50	0.5905	B¹	1.50	0.5905	B¹	1.75	0.6889	B¹	1.875	0.7381	B¹	1.50	0.5905
	B²	2.00	0.7874	B²	1.875	0.7381	B²	1.50	0.5905	B³	1.50	0.5905	B²	2.00	0.7874	B²	1.50	0.5905
	B³	1.50	0.5905	.....	.....	.....	B³	1.50	0.5905	B³	1.50	0.5905	B³	2.00	0.7874	B³	1.50	0.5905
Lowest	.....	1.25	0.4921	.....	1.50	0.5905	.....	1.50	0.5905		1.50	0.5905	.....	1.875	0.7381	.....	1.50	0.5905
Average measurements..	B¹	2.351	0.9255	B¹	2.090	0.8228	B¹	2.060	0.8110	B¹	2.255	0.8877	B¹	2.485	0.9783	B¹	1.830	0.7204
	B²	2.510	0.9881	B²	2.400	0.9448	B²	2.100	0.8267	B²	2.285	0.8996	B²	2.580	1.0157	B²	1.980	0.7795
	B³	2.410	0.9488	.....	.....	.....	B³	2.040	0.8031	B³	2.110	0.8307	B³	2.290	0.9015	B³	1.975	0.7775
Average	.....	2.423	0.9539	.....	2.245	0.8838	.....	2.066	0.8133		2.16	0.8724	.....	2.451	0.9649		1.928	0.7590
Measurements above average..	.....	40		.....	25		.....	26		.....	32		.....	44		.....	48	
Measurements below average..	.....	35		.....	25		.....	49		.....	43		.....	31		.....	27	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples	77. SIDE.			77. HIP.			77. BELLY.			78. SHOULDER.			78. SIDE.			78. HIP.		
Length of fiber in crimp	1⅞ inches.			1 inch.			1⅛ inch.			1⅛ inches.			1⅛ inches.			1⅛ inches.		
Number of crimps per inch	20.			18.			28.			20.			20.			16.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	1.5	2.25	2.0	1.5	2.25	3.0	1.75	2.25	1.5	1.75	2.0	2.25	2.25	1.75	2.5	2.25	1.75	2.75
	2.25	2.0	3.0	2.0	4.25	2.5	1.75	1.75	1.75	2.25	3.0	2.0	3.5	2.25	2.0	1.75	2.75	2.25
	1.5	2.0	2.0	1.25	1.5	4.25	3.5	2.0	2.0	1.75	2.25	3.0	2.0	2.25	1.75	2.5	2.5	2.25
	1.75	2.0	1.5	2.5	2.5	2.75	1.5	2.0	2.5	1.75	2.25	2.5	2.25	3.25	2.0	2.0	3.0	3.0
	2.0	2.5	1.5	1.75	2.5	1.75	1.75	2.25	3.0	2.25	2.25	2.25	2.125	2.5	2.75	2.5	2.25	2.5
	3.0	3.0	2.25	2.25	2.0	2.0	1.75	2.0	1.25	2.25	2.5	1.5	3.0	2.5	3.0	2.0	2.25	1.75
	1.75	2.0	1.75	2.75	3.0	3.25	2.0	2.25	2.25	2.25	2.25	2.25	2.5	2.25	2.5	2.75	2.5	2.0
	2.0	1.5	2.5	2.0	2.0	2.75	1.75	3.0	2.25	2.25	2.5	2.5	2.0	2.5	3.0	2.0	3.25	2.75
	1.75	1.5	1.5	1.75	1.5	3.25	1.75	1.75	1.75	2.25	2.0	1.75	2.0	2.5	2.5	3.0	2.25	1.75
	1.5	2.0	2.0	1.75	2.5	2.0	1.75	1.75	2.0	2.5	2.5	2.5	2.5	2.25	2.0	2.5	2.25	2.0
	1.5	2.25	1.5	1.75	2.25	2.25	2.5	2.25	2.0	2.25	2.0	2.375	2.0	1.75	1.75	2.0	2.25	2.25
	2.25	2.25	2.5	2.25	2.0	2.25	1.5	1.75	2.0	2.0	2.25	2.0	2.25	2.0	2.0	2.5	2.5	3.25
	3.0	2.25	2.25	2.5	2.75	1.75	2.0	1.75	1.75	1.75	2.5	2.25	3.0	2.0	1.75	2.0	2.5	2.5
	1.375	1.75	2.25	2.5	2.0	2.0	2.25	1.75	1.75	2.25	2.5	1.625	2.25	2.5	1.75	2.25	2.5	2.75
	1.5	1.5	1.25	1.75	2.25	1.75	1.75	2.5	2.25	2.25	3.0	2.0	1.75	2.25	2.0	2.25	2.5	2.25
	2.0	2.5	3.0	1.5	2.25	3.25	2.0	2.25	2.25	2.0	2.25	2.0	2.25	3.0	2.25	2.0	2.0	1.75
	1.75	2.0	2.25	2.25	2.25	2.25	1.75	2.25	2.25	1.75	1.75	2.5	3.0	2.0	2.25	2.5	2.25	3.25
	2.5	2.0	1.75	1.75	1.5	2.5	1.75	1.5	2.0	2.0	2.0	1.75	1.75	2.25	2.5	2.25	2.0	2.5
	1.75	2.0	1.5	2.0	2.25	1.5	2.0	1.75	1.5	2.0	2.5	2.75	1.5	2.25	1.25	3.0	2.25	2.5
	1.5	1.75	1.75	2.0	3.0	2.25	2.25	2.75	2.5	3.0	2.0	2.5	2.0	2.0	2.25	2.0	2.5	2.25
	1.75	2.25	1.5	1.5	2.25	2.0	1.75	1.75	2.0	1.75	1.5	2.0	1.25	2.25	3.0	2.5	2.25	1.75
	1.25	2.5	1.5	2.25	2.0	2.0	1.75	3.5	1.5	2.0	2.5	2.0	2.0	2.5	4.0	2.75	2.25	2.5
	1.5	2.25	2.0	3.0	2.0	2.0	2.25	3.0	1.75	1.75	2.5	3.0	1.75	1.75	2.75	2.25	2.25	2.25
	1.5	2.25	3.0	1.75	2.25	1.5	1.5	1.25	1.5	1.75	2.5	2.25	1.75	1.75	1.5	2.5	2.25	1.75
	1.75	2.5	2.5	1.75	2.25	2.0	1.5	1.5	2.25	1.5	2.25	1.5	2.0	2.0	2.75	2.25	2.25	3.5
Averages	1.775	2.070	1.920	1.960	2.200	2.350	1.910	2.000	1.980	2.050	2.260	2.200	2.015	2.250	2.310	2.330	2.370	2.400
	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	2.5	0.9842	B¹	2.75	1.0826	B¹	3.5	1.3779	B¹	3.0	1.1811	B¹	2.5	0.9842	B¹	3.0	1.1811
	B²	2.5	0.9842	B²	4.25	1.6732	B²	3.5	1.3779	B²	3.0	1.1811	B²	3.25	1.2795	B²	3.25	1.2795
	B³	3.0	1.1811	B³	4.25	1.6732	B³	3.0	1.1811	B³	3.0	1.1811	B³	4.00	1.5748	B³	3.00	1.3779
Highest		3.0	1.1811		4.25	1.6732		3.5	1.3779		3.0	1.1811		4.00	1.5748		3.00	1.3779
Minimum measurements.	B¹	1.5	0.5905	B¹	1.25	0.4921	B¹	1.5	0.5905	B¹	1.5	0.5905	B¹	1.25	0.4921	B¹	1.75	0.6889
	B²	1.5	0.5905	B²	1.5	0.5905	B²	1.25	0.4921	B²	1.5	0.5905	B²	1.75	0.6889	B²	1.75	0.6889
	B³	1.25	0.4921	B³	1.5	0.5905	B³	1.25	0.4921	B³	1.5	0.5905	B³	1.25	0.4921	B³	1.75	0.6889
Lowest		1.25	0.4921		1.25	0.4921		1.25	0.4921		1.5	0.5905		1.25	0.4921		1.75	0.6889
Average measurements.	B¹	1.775	0.6988	B¹	1.960	0.7716	B¹	1.910	0.7519	B¹	2.050	0.8070	B¹	2.015	0.7933	B¹	2.330	0.9173
	B²	2.070	0.8149	B²	2.200	0.8665	B²	2.000	0.7874	B²	2.260	0.8897	B²	2.250	0.8858	B²	2.370	0.9330
	B³	1.920	0.7559	B³	2.350	0.9251	B³	1.980	0.7795	B³	2.200	0.8661	B³	2.310	0.9094	B³	2.400	0.9448
Average		1.921	0.7562		2.200	0.8661		1.963	0.7728		2.170	0.8543		2.191	0.8625		2.366	0.9314
Measurements above average		42			37			38			42			38			36	
Measurements below average		33			33			37			33			37			42	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples	78. BELLY.			79. SHOULDER.			79. SIDE.			79. HIP, BETWEEN FOLD.			79. HIP, TOP OF FOLD.			79. BELLY.		
Length of fiber in crimp	1⅜ inches.			1½ inches.			1½ inches.			1⅜ inches.			1½ inches.			1½ inches.		
Number of crimps per inch	20.			20.			20.			16.			14.			20.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centi millimeters.	1.5	2.5	2.0	1.75	2.25	2.25	2.0	2.0	1.5	2.0	2.0	1.75	2.25	2.75	2.0	1.75	3.0	1.75
	2.25	2.0	1.25	2.0	2.25	2.0	2.0	2.25	2.0	2.0	2.5	2.0	2.25	2.5	2.75	2.25	2.0	2.0
	2.0	2.0	1.5	2.25	2.0	1.75	2.0	2.75	1.75	2.25	2.5	2.0	2.5	2.5	2.0	2.0	2.5	2.25
	1.75	3.0	1.5	1.75	2.25	2.5	2.5	2.0	1.5	2.0	3.0	2.0	2.0	4.25	2.5	2.25	2.0	1.5
	2.5	2.25	2.5	2.0	2.25	1.5	2.0	2.25	2.0	2.5	2.75	1.75	3.75	3.0	3.75	1.75	2.0	2.0
	2.25	2.0	2.0	2.25	2.0	2.5	1.75	2.25	2.0	2.75	3.0	2.0	2.75	2.25	4.0	2.0	2.5	2.0
	2.25	1.75	2.5	2.0	2.0	2.0	1.75	1.75	2.25	2.25	3.0	2.25	1.75	2.25	2.25	2.0	2.0	1.75
	2.0	1.75	2.25	2.25	2.25	1.75	2.25	2.25	1.5	2.25	2.25	1.5	2.75	3.0	3.0	2.0	2.5	2.5
	1.75	2.25	1.5	2.25	2.0	1.75	1.75	2.0	1.75	1.75	2.5	2.5	2.5	3.25	2.75	2.0	2.5	2.25
	1.75	1.75	1.75	2.0	2.25	2.0	2.0	1.5	3.0	2.5	2.75	2.5	3.0	2.0	1.75	2.25	2.25	2.25
	2.5	2.25	2.0	2.25	2.0	2.0	2.25	2.25	2.0	2.25	2.0	3.0	2.0	2.5	2.25	2.0	2.5	2.25
	1.75	2.0	2.25	1.75	2.25	1.75	1.5	2.75	1.75	2.25	3.0	1.75	2.0	1.75	3.0	1.75	2.5	2.75
	1.75	2.5	2.25	2.0	2.0	2.25	2.25	2.25	2.0	2.5	2.25	2.5	2.75	2.75	3.5	2.0	2.0	2.75
	2.0	2.25	2.5	2.0	2.0	2.25	2.5	2.5	2.0	2.25	4.0	3.5	2.5	4.5	3.25	2.0	2.0	2.26
	2.0	2.25	2.25	2.0	1.5	2.5	2.25	2.0	2.0	2.5	3.0	1.75	2.0	3.0	3.25	2.5	2.25	1.75
	2.0	2.25	1.5	2.0	1.75	1.75	1.75	2.25	1.5	2.0	2.0	2.0	2.0	4.0	4.0	3.0	1.75	1.75
	2.5	2.75	2.5	2.0	2.5	4.25	1.5	2.0	1.75	2.5	2.5	2.0	3.0	2.0	2.25	2.0	2.25	2.25
	1.75	2.0	2.0	2.0	1.25	1.75	2.0	1.75	2.0	2.5	2.5	2.5	2.25	2.25	2.5	2.125	2.25	2.0
	2.25	2.0	1.75	1.75	2.25	1.5	2.0	2.25	3.5	2.5	2.5	2.75	1.75	2.25	3.5	2.0	2.5	2.0
	2.0	2.0	2.0	2.0	1.75	1.75	2.0	2.25	2.25	2.5	2.5	1.5	2.0	3.0	3.5	2.25	2.5	2.5
	2.0	2.25	2.0	2.0	1.5	2.0	1.75	1.75	1.5	2.0	2.5	3.5	2.75	2.0	2.5	1.75	2.0	2.0
	2.25	2.25	2.25	1.5	2.0	2.0	1.5	2.25	1.75	2.25	2.25	2.25	1.75	1.75	2.25	2.5	2.0	2.0
	2.25	2.5	2.5	2.0	2.5	2.0	1.75	2.5	2.0	2.0	2.0	2.0	2.25	2.75	2.5	2.0	1.75	2.25
	2.0	2.0	2.25	2.25	2.0	1.75	2.0	1.75	2.0	2.0	2.75	2.5	2.5	3.0	2.5	2.0	3.0	1.5
	2.0	1.75	2.5	1.75	2.5	1.75	2.75	2.5	2.25	2.25	2.5	2.5	2.25	2.0	3.5	2.25	2.25	2.25
Averages	2.040	2.170	2.050	1.990	2.050	2.050	1.990	2.060	2.020	2.260	2.580	2.230	2.360	2.690	2.880	2.095	2.270	2.100

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements	B¹	2.5	0.9842	B¹	2.25	0.8858	B¹	2.75	1.0826	B¹	2.75	1.0826	B¹	3.75	1.4763	B¹	3.0	1.1811
	B²	3.0	1.1811	B²	2.50	0.9842	B²	2.75	1.0826	B²	4.00	1.5748	B²	4.50	1.7716	B²	3.0	1.1816
	B³	2.5	0.9842	B³	4.25	1.6732	B³	3.5	1.3779	B³	3.50	1.3779	B³	4.00	1.5748	B³	2.75	1.0821
Highest	.....	3.0	1.1811	.....	4.25	1.6732	.....	3.5	1.3779	.....	4.00	1.5748	.....	4.50	1.7716	.....	3.0	1.1811
Minimum measurements	B¹	1.5	0.5905	B¹	1.50	0.5905	B¹	1.50	0.5905	B¹	1.75	0.6889	B¹	1.75	0.6889	B¹	1.75	0.6889
	B²	1.75	0.6889	B²	1.25	0.4921	B²	1.50	0.5905	B²	2.00	0.7874	B²	1.75	0.6889	B²	1.75	0.6889
	B³	1.25	0.4921	B³	1.5	0.5905	B³	1.50	0.5905	B³	1.50	0.5905	B³	1.75	0.6889	B³	1.50	0.5905
Lowest	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.50	0.5905	.....	1.50	0.5905	.....	1.75	0.6889	.....	1.50	0.5905
Average measurements	B¹	2.040	0.8031	B¹	1.990	0.7834	B¹	1.990	0.7834	B¹	2.260	0.8897	B¹	2.360	0.9291	B¹	2.095	0.8243
	B²	2.170	0.8543	B²	2.050	0.8070	B²	2.060	0.8110	B²	2.580	1.0157	B²	2.690	1.0590	B²	2.270	0.8936
	B³	2.050	0.8070	B³	2.050	0.8070	B³	2.020	0.7952	B³	2.230	0.8779	B³	2.880	1.1338	B³	2.100	0.8267
Average	.....	2.086	0.8212	.....	2.030	0.7992	.....	2.023	0.7964	.....	2.357	0.9279	.....	3.643	1.0405	.....	2.155	0.8484
Measurements above average	.....	34		.....	24		.....	27			37			17		.....	35	
Measurements below average	.....	41		.....	51		.....	48			38			43		.....	46	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples..	80. SHOULDER.			80. SIDE.			80. HIP.			80. BELLY.			81. SHOULDER.			81. SIDE.		
Length of fiber in crimp.....	1½ inches.			1½ inches.			1½ inches.			1½ inches.			1½ inches.			1½ inches.		
Number of crimps per inch....	20.			22.			22.			20.			20.			16.		
Number of section.....	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centi millimeters.	1.75	2.25	2.0	1.75	2.0	1.75	1.75	1.75	1.5	2.0	2.0	1.75	1.75	2.0	1.75	2.0	2.25	2.0
	1.25	2.25	1.75	2.0	2.5	1.25	1.5	2.25	1.5	2.0	2.0	2.25	2.25	2.5	2.0	2.25	2.25	2.25
	2.0	2.0	2.0	1.5	1.5	3.5	2.0	1.75	2.0	2.0	2.25	2.0	2.25	2.5	2.5	2.25	2.25	1.75
	1.75	1.5	1.5	2.0	1.75	2.0	1.75	1.5	1.5	2.0	2.5	2.0	2.75	2.0	2.0	2.0	2.5	2.5
	1.5	1.5	1.625	1.5	2.0	1.25	1.5	2.5	1.75	1.75	2.5	2.0	2.0	2.5	1.75	1.5	2.0	2.25
	2.0	2.0	1.25	2.0	2.0	1.25	1.75	1.5	2.0	2.0	2.0	1.75	1.75	2.5	2.5	2.75	2.25	2.25
	1.75	2.0	1.875	2.0	2.0	1.25	2.0	1.75	2.0	2.0	2.75	1.75	2.0	2.0	2.0	1.75	2.0	1.75
	2.25	1.75	2.0	1.25	2.0	1.25	1.75	2.0	2.0	2.0	1.75	1.75	2.5	2.25	2.0	2.5	2.0	2.25
	1.25	1.75	1.75	1.75	2.0	1.5	2.25	2.0	1.5	2.0	2.0	2.0	1.75	2.0	2.0	2.0	2.25	2.25
	2.0	1.75	1.5	2.0	2.25	1.75	1.25	1.75	2.0	2.25	2.25	1.75	2.0	2.5	1.5	2.0	1.75	2.25
	1.75	2.0	1.75	2.0	2.0	1.25	2.0	2.25	1.5	2.25	2.25	1.5	2.0	2.25	2.25	1.75	2.0	1.75
	1.5	1.5	1.75	2.0	2.0	1.5	2.0	2.0	1.5	2.0	2.25	2.0	1.5	2.25	1.75	1.75	2.5	2.0
	1.25	1.75	2.0	2.0	2.25	2.5	2.0	2.5	1.75	2.5	2.5	1.75	2.75	1.75	2.0	2.25	2.0	2.0
	1.5	1.5	2.0	1.25	2.0	1.25	1.75	2.5	1.5	1.75	2.25	1.75	1.75	2.5	1.5	1.75	2.25	1.75
	1.5	2.5	1.75	2.0	1.75	1.75	1.75	2.25	2.0	2.25	2.75	2.0	2.0	2.0	1.5	2.25	2.0	2.5
	1.75	2.25	1.5	1.5	1.75	1.5	2.0	2.75	1.5	1.75	2.5	2.5	2.25	2.25	2.25	2.5	2.5	2.25
	1.75	2.0	1.25	1.5	2.25	1.5	1.75	2.25	1.5	1.75	2.0	2.5	2.0	2.25	2.0	2.25	2.5	2.0
	2.0	1.5	1.5	1.25	1.75	1.25	2.0	2.0	1.75	2.25	1.75	1.75	2.75	2.0	1.75	1.75	2.25	2.25
	1.5	2.0	1.75	1.75	1.75	1.25	1.75	2.0	2.25	2.0	2.0	2.25	2.25	1.75	1.5	2.25	2.0	2.5
	2.0	1.75	1.5	1.25	1.75	1.75	1.75	2.0	1.5	1.5	2.25	2.5	2.5	2.5	2.5	2.0	2.25	2.25
	1.75	2.25	2.0	1.5	2.25	1.5	2.0	2.0	1.5	2.0	2.25	2.25	1.75	2.0	2.25	2.0	2.0	2.0
	1.75	2.25	2.0	1.5	2.5	1.5	1.75	2.0	1.5	2.0	3.0	2.0	1.0	3.0	1.75	1.5	2.25	2.25
	1.75	2.25	1.5	1.75	2.0	1.25	2.0	2.0	1.5	2.25	2.0	2.5	2.5	2.0	2.5	1.75	2.25	1.75
	2.0	2.0	1.75	1.75	1.5	1.25	1.5	2.0	1.75	2.25	2.5	2.0	2.0	2.75	2.25	2.0	1.75	2.25
	1.5	1.75	1.75	1.5	2.0	1.25	1.5	2.0	1.5	2.5	2.25	2.75	1.75	2.5	2.25	1.5	2.0	2.0
Averages.....	1.710	1.950	1.668	1.770	2.000	1.490	1.840	2.050	1.730	2.046	2.300	2.006	2.130	2.280	1.990	2.010	2.190	2.240

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	2.25	0.8858	B¹	2.00	0.7874	B¹	2.00	0.7874	B¹	2.50	0.9842	B¹	2.75	1.0826	B¹	2.75	1.0826
	B²	2.25	0.8858	B²	2.50	0.9842	B²	2.75	1.0826	B²	3.00	1.1811	B²	3.00	1.1811	B²	3.25	1.2795
	B³	2.00	0.7874	B³	3.50	1.3779	B³	2.25	0.8858	B³	2.75	1.0826	B³	2.50	0.9842	B³	3.50	1.3779
Highest	.....	2.25	0.8858	.....	3.50	1.3779	.....	2.75	1.0826	.....	3.00	1.1811	.....	3.00	1.1811	.....	3.50	1.3779
Minimum measurements.	B¹	1.25	0.4921	B¹	1.25	0.4921	B¹	1.25	0.4921	B¹	1.50	0.5905	B¹	1.75	0.6889	B¹	1.50	0.5905
	B²	1.50	0.5905	B²	1.50	0.5905	B²	1.50	0.5905	B²	1.75	0.6889	B²	1.75	0.6889	B²	1.75	0.6889
	B³	1.25	0.4921	B³	1.25	0.4921	B³	1.50	0.5905	B³	1.50	0.5905	B³	1.50	0.5905	B³	1.75	0.6889
Lowest	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.50	0.5905	.....	1.50	0.5905	.....	1.50	0.5905
Average measurements..	B¹	1.710	0.6732	B¹	1.770	0.6968	B¹	1.840	0.7244	B¹	2.040	0.8031	B¹	2.130	0.8385	B¹	2.010	0.7913
	B²	1.920	0.7559	B²	2.000	0.7874	B²	2.050	0.8070	B²	2.300	0.9055	B²	2.280	0.8976	B²	2.190	0.8622
	B³	1.680	0.6614	B³	1.490	0.5866	B³	1.730	0.6811	B³	2.040	0.8031	B³	1.990	0.7834	B³	2.240	0.8818
Average	.....	1.770	0.6968	.....	1.753	0.6901	.....	1.873	0.7374	.....	2.126	0.8370	.....	2.133	0.8397	.....	2.146	0.8448
Measurements above average..	.....	29		.....	29		.....	27		.....	34		.....	35		.....	28	
Measurements below average..	.....	46		.....	16		.....	34		.....	41		.....	40		.....	36	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples	81. HIP.			81. BELLY.			82. SHOULDER.			82. SIDE.			82. HIP.			82. BELLY.		
Length of fiber in crimp	1⅝ inches.			1½ inches.			1½ inches.			1½ inches.			1⅝ inches.			1⅝ inches.		
Number of crimps per inch	16.			20.			20.			20.			20.			20.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.5	2.25	2.75	2.75	1.75	2.75	1.75	2.75	1.75	2.5	2.0	2.0	2.5	2.0	2.25	2.5	2.75	2.5
	2.0	1.75	2.0	2.0	3.0	2.5	2.0	2.5	2.5	2.5	2.5	2.5	2.0	1.5	1.75	2.25	2.0	2.5
	3.25	2.5	2.25	2.25	2.0	2.0	1.75	2.5	2.0	2.25	2.75	1.5	2.0	2.25	2.0	3.0	2.0	2.0
	2.5	3.0	2.25	3.0	2.0	2.0	2.25	1.75	1.75	2.25	2.5	2.0	1.75	2.25	2.0	2.5	2.5	2.0
	3.0	3.0	2.0	2.5	2.0	2.5	2.5	2.0	2.25	2.5	2.75	2.5	2.25	2.25	2.25	2.5	2.75	2.25
	2.0	3.0	3.25	1.5	2.0	2.5	2.5	2.5	2.0	2.25	2.0	1.75	2.5	2.25	2.25	2.5	2.0	2.75
	2.75	1.5	2.0	2.25	2.25	2.25	2.5	2.0	2.0	2.75	2.25	2.0	2.5	2.5	1.75	2.0	2.25	2.5
	2.75	3.0	2.25	2.25	2.25	2.25	2.5	2.25	1.75	2.5	1.75	2.25	2.5	2.0	2.0	2.75	2.75	2.0
	1.25	2.0	2.25	2.0	2.25	2.0	1.5	2.0	2.5	2.75	2.5	1.5	2.25	2.25	2.5	2.0	2.25	2.5
	1.75	2.0	2.0	2.0	2.0	1.75	2.5	1.5	2.5	2.0	2.5	2.75	2.25	2.0	2.0	2.25	2.0	2.0
	2.0	2.0	2.5	2.0	2.5	2.0	1.5	2.25	1.75	3.0	2.25	2.5	3.0	1.75	2.0	3.25	2.5	3.25
	3.0	3.5	2.0	2.0	2.25	2.75	2.5	2.5	2.25	1.75	2.0	3.0	2.5	2.0	2.25	3.5	2.5	2.5
	2.0	2.25	2.25	2.5	2.25	2.25	2.25	2.25	2.0	2.75	2.5	2.5	3.5	2.5	2.5	3.5	2.5	2.25
	3.0	2.0	2.0	2.5	3.0	1.75	2.5	2.0	1,5	2.25	1.75	2.75	2.25	2.0	2.25	2.5	2.5	2.5
	3.5	2.75	2.25	2.25	2.0	2.0	2.0	2.5	2.0	2.75	2.25	2.5	3.0	1.75	2.5	3.0	2.75	2.0
	1.5	3.0	2.5	2.0	2.5	2.0	2.5	2.0	2.0	2.25	2.25	2.0	2.75	2.0	2.5	2.5	2.5	2.75
	1.5	3.0	1.5	2.5	2.5	3.0	1.5	2.25	2.0	3.0	2.0	2.75	3.0	2.5	2.0	2.25	2.5	2.5
	2.0	2.5	3.0	2.5	2.25	2.0	2.25	2.5	2.0	1.75	2.0	2.0	2.75	1.75	2.5	2.75	2.25	2.25
	1.75	2.25	3.0	2.5	2.25	2.0	1.5	2.5	1.5	2.5	2.25	2.75	3.5	2.0	2.75	2.75	2.25	2.5
	2.75	2.0	1.75	3,0	2.25	1.75	2.5	1.75	1.5	2.5	2.0	2.0	1.75	2.0	2.25	3.0	2.25	2.25
	2.25	2.75	2.25	2.25	2.25	2.5	2.5	1.75	2.25	2.25	2.5	2.5	1.5	2.0	2.5	2.5	3.25	2.25
	1.5	2.0	2.0	1.75	2.25	2.25	2.5	1.75	2.0	2.25	2.25	2.5	2.0	2.5	2.25	2.25	3.5	2.25
	1.5	2.25	2.0	2.0	2.0	2.5	1.5	1.75	2.0	3.0	1.75	2.0	2.0	1.5	1.25	2.5	2.0	2.25
	1.75	2.0	1.75	2.25	2.0	2.0	2.75	2.25	2.0	2.5	2.25	1.75	2.5	1.75	2.0	2.0	2.5	3.25
	2.0	2.0	3.0	2.0	2.25	2.0	3.25	2.0	2.0	2.0	1.5	2.25	2.5	2.25	2.25	3.25	3.25	2.5
																	2.5	
Averages	2.270	2.410	2.270	2.260	2.240	2.190	2.070	2.150	2.030.	2.430	2.200	2.260	2.400	2.080	2.180	2.630	2.500	2.410

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	3.50	1.3779	B¹	3.00	1.1811	B¹	3.25	1.2795	B¹	3.00	1.1811	B¹	3.50	1.3779	B¹	3.50	1.3779
	B²	3.50	1.3779	B²	3.00	1.1811	B²	2.75	1.0826	B²	2.75	1.0826	B²	2.50	0.9842	B²	3.50	1.3779
	B³	3.25	1.2795	B³	3.00	1.1811	B³	2.50	0.9842	B³	3.00	1.1811	B³	2.75	1.0826	B³	3.25	1.2795
Highest		3.50	1.3779		3.00	1.1811		3.25	1.2795		3.00	1.1811		3.50	1.3779		3.50	1.3779
Minimum measurements.	B¹	1.25	0.4921	B¹	1.50	0.5905	B¹	1.50	0.5905	B¹	1.75	0.6889	B¹	1.50	0.5905	B¹	2.00	0.7874
	B²	1.50	0.5905	B²	1.75	0.6889	B²	1.50	0.5905	B²	1.50	0.5905	B²	1.50	0.5905	B²	2.00	0.7874
	B³	1.50	0.5905	B³	1.75	0.6889	B³	1.50	0.5905	B³	1.50	0.5905	B³	1.25	0.4921	B³	2.00	0.7874
Lowest		1.25	0.4921		1.50	0.5905		1.50	0.5905		1.50	0.5905		1.25	0.4921		2.00	0.7874
Average measurements.	B¹	2.270	0.8936	B¹	2.660	1.0472	B¹	2.070	0.8149	B¹	2.430	0.9566	B¹	2.400	0.9448	B¹	2.630	1.0354
	B²	2.410	0.9488	B²	2.240	0.8818	B²	2.150	0.8464	B²	2.200	0.8161	B²	2.080	0.8188	B²	2.500	0.9842
	B³	2.270	0.8936	B³	2.190	0.8622	B³	2.030	0.7992	B³	2.260	0.8897	B³	2.180	0.8582	B³	2.410	0.9488
Average		2.316	0.9118		2.230	0.8779		2.083	0.8200		2.296	0.9039		2.220	0.8740		2.513	0.9893
Measurements above average		28			43			36			34			43			21	
Measurements below average		47			42			39			41			32			55	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.														
Catalogue number of samples..	83. SHOULDER.			83. SIDE.			83. HIP.			83. BELLY.			84. SHOULDER.		
Length of fiber in crimp	1½ inches.			1½ inches.			1½ inches.			1½ inches.			1½ inches.		
Number of crimps per inch	20.			[illegible]			16.			[illegible]			22.		
Number of section.....	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.5	2.0	[illegible]	1.5	2.25	[illegible]	[illegible]	[illegible]	3.25	[illegible]	4.25	[illegible]	[illegible]	1.5	1.875
	2.5	2.5	2.0	1.75	[illegible]	2.5	1.75	2.25	2.5	2.5	3.5	2.25	1.75	2.0	1.75
	2.75	2.25	1.5	1.75	2.5	2.5	[illegible]	2.25	1.75	1.25	3.0	2.25	1.5	2.75	1.75
	2.25	2.25	[illegible]	1.75	2.75	2.0	[illegible]	[illegible]	2.0	1.75	3.0	2.25	2.75	1.75	1.75
	2.0	2.0	1.75	[illegible]	2.75	1.75	1.0	2.25	2.25	3.0	3.0	2.25	2.75	1.75	2.5
	2.25	1.75	[illegible]	2.0	1.75	[illegible]	1.5	2.5	2.0	2.0	2.25	1.75	2.0	[illegible]	1.75
	[illegible]	3.5	2.5	2.0	1.75	1.75	2.25	2.25	2.75	2.0	[illegible]	3.75	2.25	2.25	1.5
	[illegible]	[illegible]	1.75	1.75	1.75	1.75	2.0	4.5	2.5	2.0	3.0	[illegible]	2.25	1.75	2.0
	[illegible]	2.0	2.25	1.75	[illegible]	1.75	2.0	[illegible]	3.0	2.0	2.75	[illegible]	2.0	1.75	1.5
	2.0	[illegible]	3.0	[illegible]	[illegible]	1.75	2.75	2.75	1.5	2.5	2.75	[illegible]	1.5	1.5	1.75
	[illegible]	[illegible]	1.75	1.5	1.75	[illegible]	[illegible]	[illegible]	[illegible]	1.75	[illegible]	1.75	1.5	1.5	1.5
	1.75	[illegible]	1.75	[illegible]	[illegible]	2.75	2.5	2.0	[illegible]	2.5	2.75	[illegible]	1.0	1.5	1.75
	[illegible]	2.0	2.0	1.75	4.0	1.75	2.5	1.75	[illegible]	3.5	[illegible]	1.75	2.0	[illegible]	2.25
	2.25	[illegible]	[illegible]	1.875	[illegible]	2.5	2.25	[illegible]	2.0	3.5	[illegible]	2.25	1.75	2.25	1.75
	2.25	[illegible]	2.0	1.75	2.0	2.5	2.5	2.5	[illegible]	3.25	1.75	3.25	2.0	[illegible]	1.5
	1.5	[illegible]	1.5	1.5	2.0	1.75	[illegible]	1.5	2.0	2.0	4.75	[illegible]	[illegible]	1.5	1.75
	[illegible]	3.0	1.5	1.75	2.0	2.0	[illegible]	1.75	[illegible]	2.0	[illegible]	2.25	2.25	[illegible]	2.0
	1.5	[illegible]	2.0	1.75	3.0	1.75	2.5	[illegible]	2.25	[illegible]	[illegible]	1.5	2.75	1.5	2.0
	3.0	[illegible]	2.0	1.875	[illegible]	2.25	2.5	[illegible]	3.0	2.0	2.0	[illegible]	2.0	1.5	1.75
	2.25	2.0	[illegible]	2.0	4.0	1.75	4.0	1.75	[illegible]	2.0	3.0	[illegible]	[illegible]	[illegible]	1.625
	1.5	2.0	2.25	1.75	[illegible]	2.0	5.25	1.5	2.0	2.0	1.5	2.5	2.0	3.0	1.75
	1.75	2.0	1.75	[illegible]	2.0	[illegible]	2.25	1.75	2.0	2.75	[illegible]	1.75	2.25	[illegible]	2.0
	2.0	[illegible]	1.75	1.5	2.0	2.5	2.25	1.75	2.75	1.75	2.25	1.75	2.0	1.75	1.5
	[illegible]	2.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.75	1.5	[illegible]	[illegible]	1.5	1.5	1.75	[illegible]
	[illegible]	2.0	1.5	2.0	[illegible]	1.5	3.0	1.75	1.5	2.0	4.0	1.5	1.5	2.0	[illegible]
Averages	2.130	2.230	[illegible]	[illegible]	2.350	2.100	2.540	2.310	2.300	2.340	2.840	2.320	2.100	1.960	1.799

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reductions:															
Maximum measurements.	B¹	3.00	1.1811	B¹	[illegible]	1.1811	B¹	5.25	2.0669	[illegible]	[illegible]	1.3779	B¹	[illegible]	1.3779
	B²	3.50	1.3779	B²	4.00	1.5748	B²	4.50	1.7716	B²	4.75	1.8700	B²	[illegible]	1.1811
	B³	3.00	1.1811	B³	[illegible]	0.9842	B³	[illegible]	1.3779	B³	3.75	1.4763	B³	2.50	0.9842
Highest.....	.....	[illegible]	1.3779	.....	4.00	1.5748	.....	5.25	2.0669	.....	4.75	1.8700	.....	[illegible]	1.3779
Minimum measurements.	B¹	1.50	0.5905	B¹	1.50	0.5905	B¹	1.00	0.3937	B¹	1.25	[illegible]	B¹	1.50	0.5905
	B²	1.75	0.6889	B²	1.75	0.6889	B²	1.50	0.5905	B²	1.50	[illegible]	B²	[illegible]	0.5905
	B³	1.50	0.5905	B³	1.75	0.6889	B³	1.50	0.5905	B³	1.50	0.5905	B³	1.50	0.5905
Lowest	.....	1.50	0.5905	.....	[illegible]	0.5905	.....	1.00	0.3937	.....	1.25	0.4921	.....	1.50	0.5905
Average measurements..	B¹	2.130	0.8385	B¹	1.920	0.7559	B¹	2.540	0.9999	B¹	2.340	[illegible]	B¹	2.100	0.8267
	B²	2.230	0.8779	B²	2.350	0.9251	B²	2.310	0.9094	B²	2.840	1.1181	B²	1.960	0.7716
	B³	1.920	0.7559	B³	2.100	0.8267	B³	2.300	0.9055	B³	2.320	0.9133	B³	1.799	0.7082
Average	.....	2.093	0.8240	.....	2.123	0.8358	.....	[illegible]	[illegible]	.....	[illegible]	0.9842	.....	1.953	0.7688
Measurements above average..	.....	28		.....	28		.....	25		.....	27+		.....	37	
Measurements below average..	.....	47		.....	47		.....	40		.....	41+		.....	38	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples..	84. SHOULDER A (17 MONTHS' GROWTH).						84. SIDE.			84. HIP.			85. SHOULDER.			85. SIDE.		
Length of fiber in crimp	3⅛ inches.						1 inch.			1 inch.			1⅛ inches.			1⅛ inches.		
Number of crimps per inch....	22.						22.			20.			22.			22.		
Number of section.....	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.0	1.75	2.0	2.0	2.0	2.0	2.25	2.0	2.0	2.0	3.5	2.0	2.0	1.5	1.5	1.5	1.75	2.0
	2.25	2.0	1.5	2.0	2.0	1.75	2.25	1.5	2.25	2.75	1.75	2.25	1.5	1.5	2.0	2.25	2.25	1.25
	2.0	2.0	2.0	1.5	2.5	2.5	2.75	1.75	1.75	1.75	1.25	2.0	2.0	1.5	1.25	1.5	1.75	1.5
	2.0	1.75	2.25	2.0	1.75	2.25	1.5	1.75	2.0	2.5	1.5	2.0	2.25	2.5	1.75	2.0	2.0	1.75
	3.0	2.0	1.75	2.5	1.5	2.0	1.5	1.75	2.0	2.0	1.75	2.25	2.25	1.75	1.75	1.5	2.0	1.75
	2.0	2.0	1.75	1.75	2.0	1.75	2.0	2.0	2.25	2.5	1.75	3.5	1.75	1.75	1.75	1.75	2.0	1.25
	2.25	1.75	1.75	1.5	2.0	2.0	2.0	2.0	1.25	2.25	1.75	2.0	1.75	1.75	2.0	1.5	1.5	1.25
	2.25	2.75	2.0	2.25	1.5	1.75	3.0	2.0	1.75	2.25	2.5	1.75	1.75	2.0	2.25	2.0	1.75	1.5
	2.0	1.5	2.0	1.5	2.0	2.5	3.5	1.75	2.5	2.0	1.5	3.5	1.75	1.25	2.0	2.0	2.0	1.5
	2.0	2.0	1.5	1.75	2.25	2.25	2.0	1.5	2.25	3.0	1.75	2.0	1.75	1.75	1.75	1.75	1.5	1.5
	2.0	2.0	1.75	2.0	2.25	2.0	1.5	2.0	2.0	1.5	2.25	1.75	1.5	1.75	2.0	2.25	2.0	1.75
	1.5	1.25	1.5	2.0	2.0	1.75	2.0	2.5	1.75	1.75	1.5	2.375	1.75	2.0	2.0	2.0	2.0	2.0
	2.0	2.0	2.25	3.0	3.0	2.5	2.25	1.75	1.75	2.0	2.0	1.75	1.5	2.0	2.75	2.0	2.25	1.5
	1.75	2.0	1.75	1.5	1.5	1.75	2.25	1.5	2.5	2.0	2.0	2.0	1.5	2.0	1.5	1.75	2.25	2.0
	3.75	2.25	1.75	2.0	2.5	2.0	1.75	1.5	2.5	2.5	2.5	2.0	1.5	1.75	2.0	1.75	1.5	1.5
	1.75	2.0	1.5	3.0	1.75	2.0	3.5	1.5	1.5	2.25	2.75	1.75	1.5	1.75	2.0	1.5	2.0	1.75
	2.25	2.0	1.75	2.0	2.75	2.5	2.25	1.75	1.75	2.0	3.0	3.0	1.75	1.5	1.75	2.25	1.75	2.5
	2.25	2.25	1.75	2.0	2.0	2.5	1.5	2.0	1.75	2.5	4.0	1.75	1.5	1.5	2.0	1.75	2.25	1.75
	2.75	2.0	1.5	1.75	2.25	1.75	2.0	2.0	2.0	2.0	2.25	2.0	2.0	2.0	2.0	1.75	1.75	1.75
	2.0	2.0	1.5	1.875	2.25	2.0	1.5	1.75	1.75	2.25	2.5	1.5	1.75	2.0	1.75	2.0	1.75	1.75
	2.0	2.25	1.75	2.25	1.75	2.0	2.0	2.25	2.25	1.75	2.0	2.0	1.5	1.75	1.75	2.0	1.5	1.75
	1.75	1.75	2.5	2.25	2.5	2.0	2.0	1.5	2.0	3.0	2.75	2.5	1.5	2.0	1.75	2.0	1.5	2.0
	2.0	1.75	2.25	2.0	2.25	3.0	2.0	1.5	2.5	1.75	2.75	1.5	1.5	2.25	1.75	1.75	2.0	1.5
	2.0	2.0	2.0	2.0	2.0	1.75	2.25	1.5	2.0	2.5	2.75	2.75	2.0	1.5	1.75	2.0	1.75	2.0
	1.5	1.75	1.75	2.25	2.25	2.5	2.0	1.5	1.75	2.0	2.25	2.25	1.5	1.75	2.0	1.5	2.0	2.0
Averages	2.120	1.950	1.830	2.045	2.100	2.110	2.140	1.780	1.990	2.230	2.250	2.125	1.720	1.790	1.870	1.850	1.870	1.710

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	3.75	1.4763	B¹	3.50	1.3779	B¹	3.00	1.1811	B¹	2.00	0.7874	B¹	2.25	0.8858
	B²	2.75	1.0826	B²	2.50	0.9842	B²	4.00	1.5748	B²	2.25	0.8858	B²	2.25	0.8858
	B³	2.50	0.9842	B³	2.50	0.9842	B³	3.50	1.3779	B³	2.75	1.0826	B³	2.50	0.9842
	B⁴	3.00	1.1811	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	B⁵	3.00	1.1811	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	B⁶	3.00	1.1811	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Highest	.....	3.75	1.4763	.....	3.50	1.3779		4.00	1.5748	.....	2.75	1.0826	.....	2.50	0.9842
Minimum measurements.	B¹	1.50	0.5905	B¹	1.50	0.5905	B¹	1.50	0.5905	B¹	1.50	0.5905	B¹	1.50	0.5905
	B²	1.25	0.4921	B²	1.50	0.5905	B²	1.50	0.5905	B²	1.50	0.5905	B²	1.50	0.5905
	B³	1.50	0.5905	B³	1.25	0.4921	B³	1.50	0.5905	B³	1.25	0.4921	B³	1.25	0.4921
	B⁴	1.50	0.5905	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	B⁵	1.50	0.5905	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	B⁶	1.75	0.6889	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lowest	.....	1.25	0.4921	.....	1.25	0.4921		1.50	0.5905	.....	1.25	0.4921	.....	1.25	0.4921
Average measurements..	B¹	2.120	0.8346	B¹	2.140	0.8425	B¹	2.230	0.8779	B¹	1.720	0.6771	B¹	1.850	0.7283
	B²	1.950	0.7677	B²	1.780	0.7007	B²	2.250	0.8858	B²	1.290	0.7047	B²	1.870	0.7362
	B³	1.830	0.7204	B³	1.990	0.7834	B³	2.125	0.8366	B³	1.870	0.7362	B³	1.710	0.6732
	B⁴	2.045	0.8051	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	B⁵	2.100	0.8267	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	B⁶	2.110	0.8307	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Average	.....	2.026	0.7976	.....	1.970	0.7755		2.201	0.8665	.....	1.793	0.7059	.....	1.810	0.7125
Measurements above average..	.....	43		.....	11		.....	31		.....	27		.....	12	
Measurements below average..	.....	107		.....	32		.....	41		.....	18		.....	43	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples..	85. HIP.			85. BELLY.			86. SHOULDER.			86. SIDE.			86. HIP.			86. BELLY.		
Length of fiber in crimp.....	1½ inches.			1½ inches.			1½ inches.			1½ inches.			1½ inches.			1½ inches.		
Number of crimps per inch	20.			20.			22.			22.			22.			20.		
Number of section.....	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	1.5 1.5 1.75 1.75 2.25 2.0 2.5 2.5 1.75 2.0 1.5 2.0 2.0 2.0 2.0 2.5 2.25 1.75 2.25 2.5 2.0 2.0 1.75	1.75 1.75 2.0 2.5 2.5 1.5 2.0 1.5 1.75 1.5 2.0 2.0 2.25 3.0 2.0 2.0 1.5 2.0 2.25 1.5 2.5 2.0 2.0 2.0	1.125 1.25 1.0 1.75 1.5 1.5 1.75 1.5 1.5 1.5 1.5 1.5 2.25 1.75 2.75 1.5 1.5 2.25 1.75 1.0 1.5 1.75 1.5 1.75	2.0 2.0 2.5 2.0 1.5 2.0 3.75 1.5 2.0 3.5 2.0 1.75 1.75 1.5 2.5 1.25 2.25 1.25 1.75 2.0 1.75 2.0 1.75 2.25	1.75 1.75 1.75 1.75 1.75 2.25 2.0 1.0 1.5 1.75 1.5 2.25 1.5 1.5 1.5 1.5 1.5 1.5 1.75 2.25 1.75 1.5 1.5 1.5	2.25 2.25 2.25 2.0 1.5 1.75 1.75 1.0 1.5 1.5 1.5 1.5 1.75 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.75	2.0 1.875 1.5 2.25 1.5 1.75 1.75 1.5 1.5 1.5 1.75 2.0 1.5 1.5 1.25 1.25 1.0 1.75 1.75 1.5 1.5 2.25 1.5 1.5	1.75 1.75 1.5 2.25 1.5 1.75 1.75 1.5 1.5 1.5 1.75 2.0 1.5 1.5 1.25 1.25 1.0 1.75 1.75 1.5 1.5 2.25 1.5 1.5	2.25 2.5 2.0 2.5 2.0 2.0 1.75 2.0 2.5 2.0 2.25 2.0 2.0 1.75 2.0 1.75 1.5 2.25 2.0 2.0 2.0 1.75 2.0 2.0	2.0 1.75 2.0 1.5 2.0 1.75 2.25 2.0 2.5 2.25 2.0 2.5 2.25 2.0 1.25 1.75 1.5 1.75 1.75 3.5 1.75 1.75 1.5 1.75 2.5	1.75 2.75 1.5 2.0 1.5 1.75 1.5 2.0 2.5 1.75 1.5 2.5 1.75 1.5 2.0 1.5 1.5 2.25 1.5 2.0 1.5 2.25 1.5 2.0	2.0 2.5 2.25 2.5 1.75 2.5 2.0 2.5 2.5 2.5 2.5 2.5 2.5 2.0 2.5 2.0 2.5 2.5 2.0 2.5 2.0 2.5 2.0 2.0	2.5 2.25 1.75 2.5 2.5 2.0 2.5 2.0 2.5 2.0 2.5 2.5 2.25 2.0 2.25 2.25 2.5 2.25 2.0 2.5 2.0 2.5 2.0 2.0	2.0 2.5 2.0 2.5 1.75 2.0 2.5 2.0 2.5 2.0 2.5 2.5 2.0 2.0 3.0 2.25 2.75 2.5 2.0 2.0 2.25 2.0 1.5 2.5
Averages.....	1.920	1.960	1.635	1.800	1.980	1.790	1.760	2.075	1.720	2.030	2.120	2.160	1.850	2.300	2.040	2.130	2.220	2.180
	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹ B² B³	3.50 3.00 2.75	0.9842 1.1811 1.0826	B¹ B² B³	2.50 3.75 3.00	0.9842 1.4763 1.1811	B¹ B² B³	2.25 3.50 2.25	0.8858 1.3779 0.8858	B¹ B² B³	3.00 2.75 3.50	1.1811 1.0826 1.3779	B¹ B² B³	2.75 3.50 3.25	1.0826 1.3779 1.2795	B¹ B² B³	2.50 3.50 3.00	0.9842 0.9842 1.1811
Highest	.....	3.00	1.1811	.....	3.75	1.4763	.....	3.50	1.3779	.....	3.50	1.3779	.....	3.50	1.3779	.....	3.00	1.1811
Minimum measurements.	B¹ B² B³	1.50 1.50 1.00	0.5905 0.5905 0.3937	B¹ B² B³	1.25 1.25 1.00	0.4921 0.4921 0.3937	B¹ B² B³	1.50 1.00 1.00	0.5905 0.3937 0.3937	B¹ B² B³	1.50 1.50 1.50	0.5905 0.5905 0.5905	B¹ B² B³	1.50 2.00 1.50	0.5905 0.7874 0.5905	B¹ B² B³	1.75 1.75 1.50	0.6889 0.6889 0.5905
Lowest	.....	1.00	0.3937	.....	1.00	0.3937	.....	1.00	0.3937	.....	1.50	0.5905	.....	1.50	0.5905	.....	1.50	0.5905
Average measurements..	B¹ B² B³	1.920 1.960 1.635	0.7559 0.7716 0.6436	B¹ B² B³	1.800 1.980 1.790	0.7440 0.7795 0.7047	B¹ B² B³	1.760 2.075 1.720	0.6929 0.8169 0.6771	B¹ B² B³	2.030 2.130 2.120	0.7992 0.8386 0.8346	B¹ B² B³	1.850 2.300 2.040	0.7283 0.9291 0.8031	B¹ B² B³	2.130 2.220 2.180	0.8385 0.8740 0.8583
Average	.....	1.838	0.7236	.....	1.886	0.7425	.....	1.851	0.7287	.....	2.103	0.8279	.....	2.063	0.8120	.....	2.176	0.8569
Measurements above average..	.....	35		.....	37		.....	43		.....	47		.....	47		.....	47	
Measurements below average..	.....	40		.....	38		.....	43		.....	48		.....	43		.....	43	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples..	87. SHOULDER.			87. SIDE.			87. HIP.			87. BELLY.			88. SHOULDER.			88. SIDE.		
Length of fiber in crimp	1½ inches.			1 5/16 inches.			1½ inches.			1⅜ inches.			1⅛ inches.			1¼ inches.		
Number of crimps per inch	22.			22.			22.			20.			20.			20.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.0	1.75	1.75	2.5	2.0	1.75	2.5	2.0	2.5	2.0	1.75	1.75	2.0	2.5	2.0	1.5	2.0	1.75
	2.0	1.75	2.25	2.0	1.75	2.5	2.5	2.5	2.5	2.5	2.75	1.75	2.0	1.75	1.5	2.0	2.0	2.0
	2.5	2.25	2.0	2.5	2.5	2.25	2.75	1.5	2.25	2.0	2.0	2.0	2.25	1.5	2.25	2.5	1.75	2.0
	1.75	2.25	2.0	2.125	2.5	3.25	2.0	2.75	2.25	2.0	2.0	2.25	2.0	2.0	2.5	1.5	1.75	1.5
	1.75	2.0	2.0	2.0	2.5	2.0	2.0	2.5	2.25	1.75	1.875	2.0	2.5	1.75	2.0	1.75	2.0	1.75
	1.75	2.75	2.0	2.25	2.5	2.25	2.5	2.5	2.5	1.75	2.5	2.0	2.25	2.0	1.75	2.5	2.25	1.75
	2.5	2.0	2.5	2.0	2.75	2.0	1.75	2.25	2.25	2.0	2.5	1.75	1.75	1.75	1.75	2.5	2.0	2.0
	1.75	1.75	2.0	2.0	1.75	1.75	2.25	2.5	1.5	1.75	1.75	1.75	2.55	1.75	1.5	2.5	2.0	2.0
	2.0	1.75	2.0	2.0	2.0	2.0	1.75	2.5	2.25	1.75	1.75	1.75	2.25	1.75	1.75	1.25	1.75	1.75
	2.25	2.5	2.0	2.5	3.0	2.0	1.75	1.75	2.0	1.75	2.0	1.5	3.0	1.75	2.0	1.5	2.5	1.75
	2.25	2.5	2.0	1.5	2.75	2.25	2.25	2.0	1.75	1.75	2.0	2.0	2.5	1.75	2.5	2.5	2.0	1.75
	2.5	2.25	1.75	2.0	1.75	2.0	2.5	3.0	2.0	2.25	2.0	1.75	1.75	2.25	2.25	1.25	2.0	1.75
	2.5	1.75	2.25	2.25	2.0	2.0	2.5	3.0	2.75	2.0	2.0	1.75	1.75	1.5	1.5	2.5	2.0	2.5
	2.0	1.75	2.25	2.0	2.5	2.0	2.0	2.75	2.0	2.0	2.75	1.75	2.5	1.5	2.25	1.75	2.25	1.75
	2.0	2.5	2.0	2.0	2.25	2.0	2.0	2.0	2.0	1.75	2.0	2.0	2.0	1.5	1.5	1.75	2.0	1.75
	2.5	3.0	2.0	2.5	2.5	2.25	2.0	2.0	1.5	1.75	2.0	2.25	2.25	1.5	1.75	1.75	1.5	1.75
	2.0	2.0	2.0	2.75	3.0	2.5	2.0	2.25	1.75	1.75	1.5	1.75	2.0	2.0	1.5	1.75	2.0	2.0
	1.75	2.0	2.0	2.25	2.5	2.25	2.0	2.0	2.25	2.0	2.0	1.75	1.75	2.0	1.75	2.0	2.0	2.0
	2.25	2.5	1.5	1.5	2.25	2.25	2.0	2.25	2.0	2.0	1.75	1.75	2.75	1.75	1.5	2.0	2.5	1.5
	2.0	2.0	1.75	2.25	2.25	1.75	1.75	2.5	2.0	1.5	1.75	1.75	1.75	1.5	1.375	3.25	1.75	2.5
	1.75	2.0	1.75	1.5	2.5	1.75	2.25	2.0	2.0	1.75	2.25	1.5	2.0	1.75	1.25	1.5	2.5	2.0
	2.0	2.25	1.75	2.5	2.5	1.5	2.0	1.75	2.0	1.75	1.5	2.0	2.0	2.25	2.0	2.25	1.75	2.0
	1.75	2.0	1.75	2.25	2.25	2.0	2.0	2.0	2.0	1.75	2.25	2.0	2.0	2.25	1.75	1.75	2.0	2.0
	2.0	2.25	2.0	2.0	2.0	2.25	1.5	2.25	2.25	2.0	2.25	2.0	2.5	1.25	1.75	2.5	1.75	1.75
	2.0	2.0	2.0	2.5	2.25	2.5	3.0	1.75	2.25	2.0	2.0	2.0	1.75	1.5	2.0	2.5	2.0	2.5
Averages.....	2.060	2.140	1.970	2.145	2.340	2.120	2.140	2.270	2.110	1.890	2.035	1.860	2.150	1.790	1.825	2.020	2.000	1.910
	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	2.5	0.9842	B¹	2.75	1.0826	B¹	3.0	1.1811	B¹	2.5	0.9842	B¹	3.0	1.1811	B¹	3.25	1.2795
	B²	3.0	1.1811	B²	3.0	1.1811	B²	3.0	1.1811	B²	2.75	1.0826	B²	2.5	0.9842	B²	2.5	0.9842
	B³	2.25	0.8858	B³	3.25	1.2795	B³	2.75	1.0826	B³	2.25	0.8858	B³	2.5	0.9842	B³	2.5	0.9842
Highest.....	.....	3.0	1.1811	.....	3.25	1.2795	.....	3.0	1.1811	.....	2.75	1.0826	.....	3.0	1.1811	.....	3.25	1.2795
Minimum measurements.	B¹	1.75	0.6889	B¹	1.5	0.5905	B¹	1.5	0.5905	B¹	1.5	0.5905	B¹	1.75	0.0889	B¹	1.25	0.4921
	B²	1.75	0.6889	B²	1.75	0.6889	B²	1.5	0.5905	B²	1.5	0.5905	B²	1.5	0.5905	B²	1.5	0.5905
	B³	1.5	0.5905	B³	1.5	0.5905	B³	1.5	0.5905	B³	1.5	0.5905	B³	1.25	0.4721	B³	1.5	0.5905
Lowest	.....	1.5	0.5905	.....	1.5	0.5905	.....	1.5	0.5905	.....	1.5	0.5905	.....	1.25	0.4921	.....	1.25	0.4921
Average measurements..	B¹	2.06	0.811	B¹	2.145	0.8444	B¹	2.14	0.8425	B¹	1.890	0.7440	B¹	2.15	0.8464	B¹	2.02	0.7953
	B²	2.14	0.8425	B²	2.340	0.9212	B²	2.27	0.8936	B²	2.035	0.8011	B²	1.79	0.7047	B²	2.0	0.7874
	B³	1.97	0.7755	B³	2.120	0.8346	B³	2.11	0.8307	B³	1.860	0.7322	B³	1.825	0.7185	B³	1.91	0.7519
Average	.....	2.056	0.8094	.....	2.201	0.8665	.....	2.173	0.8555	.....	1.928	0.7590	.....	1.921	0.7562	.....	1.976	0.7779
Measurements above average..	.....	23		.....	41		.....	36		.....	40		.....	37		.....	[illegible]	
Measurements below average..	.....	52		.....	34		.....	39		.....	35		.....	38		.....	32	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples..	88. HIP.			88. BELLY.			89. SHOULDER.			89. SIDE.			90. HIP.			90. BELLY.		
Length of fiber in crimp	1½ inches.			1½ inches.			1 7/8 inches.			1½ inches.			1½ inches.			1½ inches.		
Number of crimps per inch	20			20			20			20			20			20		
Number of section.....	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.
Actual measurement in centimillimeters.	1.75	2.25	2.0	2.25	2.25	3.25	1.75	1.5	2.5	2.25	2.0	1.75	2.0	2.25	1.75	1.75	1.5	2.5
	1.25	2.5	1.5	1.75	2.25	1.75	1.5	2.5	1.75	1.5	2.25	2.0	2.0	1.75	2.25	1.75	2.0	2.75
	1.75	1.75	1.75	1.625	2.5	2.25	1.5	2.25	1.75	2.25	2.0	2.0	1.5	2.0	2.0	1.75	2.75	1.75
	1.75	2.25	2.0	2.0	1.75	4.0	2.5	2.5	2.0	2.75	3.0	2.0	1.75	2.25	2.5	1.75	1.75	2.0
	1.75	2.25	3.0	2.25	2.5	3.5	3.0	2.25	2.25	1.5	2.25	4.0	2.25	2.25	1.75	2.5	2.75	2.0
	2.0	1.75	2.0	1.75	1.5	2.5	2.0	1.5	1.75	1.75	1.5	1.75	1.75	1.75	1.75	1.625	2.0	2.0
	1.5	2.75	2.0	2.0	2.5	2.75	1.75	2.0	2.25	1.5	2.0	1.75	2.0	1.75	1.75	2.5	2.25	1.75
	2.25	2.5	1.75	2.25	1.5	3.25	1.75	1.5	1.75	1.75	1.75	1.75	2.0	1.75	2.0	1.75	2.5	2.0
	2.0	2.25	1.75	2.75	4.75	1.75	1.75	1.25	2.0	2.0	2.0	2.0	2.5	1.5	2.0	1.75	2.75	2.0
	1.75	2.0	1.75	1.5	1.5	2.0	2.0	2.0	2.0	1.5	2.0	2.25	2.0	2.0	2.25	1.75	1.75	2.5
	2.0	2.0	2.5	2.25	2.5	2.0	1.75	1.75	3.25	1.75	2.25	2.25	1.75	2.0	2.0	1.75	2.0	2.5
	2.0	1.75	2.25	1.75	1.75	2.5	1.75	1.75	2.25	2.0	2.0	2.25	1.75	2.0	1.25	1.75	2.25	2.5
	2.0	1.75	2.5	1.75	1.5	1.75	2.0	1.5	2.0	2.0	2.0	3.25	2.0	1.75	2.25	2.5	1.75	1.75
	1.75	1.75	2.5	1.75	2.25	3.0	1.75	2.0	1.75	1.75	1.75	1.75	2.25	1.75	3.0	1.75	1.75	2.0
	2.0	2.25	2.25	2.0	3.75	3.0	1.75	2.75	2.25	1.75	1.75	2.0	2.25	1.75	1.75	2.0	1.375	2.0
	2.25	2.25	1.5	1.5	2.25	2.0	2.25	2.25	1.5	1.75	1.75	2.75	2.25	3.25	2.0	2.5	2.0	1.5
	1.5	2.5	1.5	1.75	1.75	1.5	1.75	2.0	2.0	1.75	2.0	1.75	2.0	2.25	2.0	2.0	3.0	2.0
	2.0	2.0	2.0	2.25	2.25	2.5	2.0	1.75	2.0	1.75	2.25	2.75	1.75	1.75	1.5	2.0	1.75	2.5
	2.0	2.5	2.5	2.25	3.25	2.0	2.0	2.25	2.25	2.25	2.0	2.5	2.0	2.0	1.75	2.5	1.75	2.0
	1.75	2.5	2.25	1.75	2.0	2.5	1.75	2.0	2.0	1.5	2.0	1.75	2.0	2.5	2.0	1.75	2.0	2.0
	1.5	2.25	1.75	1.75	2.5	2.5	2.5	2.0	2.0	2.25	2.25	1.5	1.75	1.75	1.75	1.5	1.75	2.0
	2.0	1.0	1.75	1.75	2.5	1.75	1.625	2.75	2.5	1.75	2.0	1.5	2.0	1.75	2.0	1.25	2.0	2.0
	1.25	1.5	2.25	2.0	2.0	1.75	1.75	1.75	1.5	1.75	1.75	2.0	2.0	1.75	2.0	1.75	1.5	2.0
	1.5	1.5	2.75	3.75	2.5	2.0	2.0	1.75	2.0	1.75	1.5	1.75	1.75	1.75	2.0	2.0	2.25	1.5
	1.5	1.5	2.0	3.25	2.0	2.75	2.25	2.25	1.75	1.5	2.0	1.5	1.75	1.75	1.5	1.75	2.0	1.5
Averages.....	1.820	2.070	2.060	2.065	2.313	2.300	1.855	2.133	2.020	1.850	2.120	2.110	1.900	1.960	1.950	1.9250	2.064	2.060

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B^1	2.25	0.8858	B^1	3.75	1.4768	B^1	2.50	0.9842	B^1	2.25	0.8858	B^1	2.50	0.9842	B^1	2.50	0.9842
	B^2	2.75	1.0826	B^2	4.75	1.8700	B^2	2.75	1.0826	B^2	2.60	1.1811	B^2	3.25	1.2775	B^2	3.00	1.1811
	B^3	2.70	1.0826	B^3	4.00	1.5748	B^3	3.25	1.2795	B^3	4.00	1.5748	B^3	3.00	1.1811	B^3	3.00	1.1811
Highest	.....	2.75	1.0826	.....	4.75	1.8700	.....	3.25	1.2795	.....	4.00	1.5748	.....	3.25	1.2795	.....	3.00	1.1811
Minimum measurements.	B^1	1.25	0.4921	B^1	1.50	0.5905	B^1	1.50	0.5905	B^1	1.50	0.5905	B^1	1.50	0.5905	B^1	1.25	0.4921
	B^2	1.00	0.3936	B^2	1.50	0.5905	B^2	1.25	0.4921	B^2	1.50	0.5905	B^2	1.50	0.5905	B^2	1.375	0.5413
	B^3	1.50	0.5905	B^3	1.50	0.5905	B^3	1.50	0.5905	B^3	1.50	0.5905	B^3	1.25	0.4921	B^3	1.50	0.5905
Lowest	.....	1.00	0.3937	.....	1.50	0.5905	.....	1.25	0.4921	.....	1.50	0.0905	.....	1.25	0.4921	.....	1.25	0.4921
Average measurements..	B^1	1.820	0.7165	B^1	2.065	0.8208	B^1	1.855	0.7303	B^1	1.850	0.7283	B^1	1.900	0.7715	B^1	1.905	0.7499
	B^2	2.070	0.8145	B^2	2.315	0.9114	B^2	2.133	0.8397	B^2	2.120	0.8346	B^2	1.960	0.7716	B^2	2.064	0.8125
	B^3	2.053	0.8070	B^3	2.300	0.9055	B^3	2.020	0.7952	B^3	2.110	0.8307	B^3	1.950	0.7677	B^3	2.060	0.8110
Average	.....	1.980	0.7795	.....	2.233	0.8791	.....	2.004	0.7889	.....	2.026	0.7976	.....	1.956	0.7700	.....	2.009	0.7909
Measurements above average..	.....	43		.....	36		.....	19		.....	18		.....	42		.....	26	
Measurements below average..	.....	32		.....	39		.....	56		.....	58		.....	33		.....	54	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																			
Catalogue number of samples..	90. SHOULDER.			90. SIDE.			90. HIP.			90. BELLY.			91.				97.			
Length of fiber in crimp.....	1½ inches.			1½ inches.			1 5/8 inches.			1½ inches.			2 inches.				2½ inches.			
Number of crimps per inch....	20.			20.			20.			20.			30.				30.			
Number of section.....	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B¹.	B₂.	B³.	B⁴.
Actual measurement in centimillimeters.	2.5	3.0	1.25	3.5	2.5	1.25	2.0	2.0	2.0	2.0	2.25	3.0	1.25	1.5	1.75	1.25	1.0	1.5	1.0	1.5
	2.5	2.0	1.75	2.0	1.75	2.0	2.0	1.75	2.75	2.25	2.25	2.25	1.5	1.5	1.5	1.5	1.25	1.5	1.75	2.0
	1.5	2.0	2.5	2.25	2.75	2.0	3.0	2.75	1.5	2.75	1.25	2.0	1.5	1.5	1.5	1.75	1.0	1.5	1.75	2.5
	2.25	4.0	1.25	2.0	2.5	2.5	2.25	2.5	3.0	2.0	2.0	2.5	1.5	1.75	1.5	1.5	1.0	1.5	1.75	2.0
	2.0	2.5	2.25	2.0	2.0	2.25	1.75	2.0	2.25	1.75	2.0	2.5	1.5	1.5	1.5	1.75	1.25	1.75	1.25	2.0
	2.0	2.25	2.25	1.5	2.5	2.25	2.0	2.0	2.5	2.25	2.25	2.25	1.25	1.5	1.75	1.75	1.0	1.5	1.5	2.0
	2.75	2.0	2.5	2.0	2.5	2.0	2.25	2.0	1.75	2.5	2.5	2.75	1.75	1.25	1.75	1.5	1.0	1.75	2.0	2.75
	2.0	2.5	2.0	2.5	2.0	2.25	1.75	2.5	1.5	3.0	2.5	3.25	1.5	1.5	1.75	1.25	1.0	1.5	1.5	1.5
	3.0	2.0	2.0	2.75	2.75	2.25	2.0	2.25	2.0	2.0	2.75	2.0	1.5	1.25	1.75	2.0	1.0	2.0	1.25	1.75
	2.5	2.75	2.0	2.0	2.25	2.0	2.0	2.25	2.75	1.75	3.5	2.5	1.25	1.5	2.0	1.25	1.0	1.5	1.75	1.75
	1.75	2.75	1.5	2.25	2.0	3.0	1.75	2.75	2.25	2.0	2.0	2.0	1.0	1.5	1.5	1.5	1.0	2.0	2.0	1.75
	2.0	2.25	2.0	2.0	2.75	2.0	1.75	3.0	2.0	1.75	2.0	2.25	1.5	1.5	1.5	1.5	1.25	1.5	1.75	1.5
	2.75	2.5	2.5	2.75	2.0	2.0	2.5	3.0	1.75	3.0	3.75	2.0	1.25	1.25	1.75	1.25	1.0	1.75	1.5	2.25
	2.5	2.5	2.5	2.25	2.5	2.0	1.75	2.25	1.5	2.5	2.0	2.25	1.25	1.25	1.75	1.25	1.125	2.0	2.25	2.00
	2.0	2.0	2.0	2.5	2.5	2.25	2.25	2.5	2.0	1.75	3.0	2.75	1.5	1.5	1.75	1.25	1.0	1.75	1.5	2.0
	2.0	2.0	1.5	2.0	2.5	2.75	2.5	2.5	1.75	1.75	3.5	1.75	1.5	1.5	1.25	1.75	1.25	1.5	1.0	1.75
	2.0	3.25	2.5	3.25	2.5	2.25	1.75	3.0	2.5	2.5	2.5	2.5	1.25	1.75	1.25	2.0	1.0	2.0	1.5	1.5
	1.75	1.75	1.75	2.25	2.5	2.5	2.0	2.0	2.0	2.25	2.5	2.5	1.25	1.25	1.75	1.5	1.25	1.5	1.5	1.5
	3.0	2.0	1.5	2.5	1.75	2.5	2.75	2.0	1.75	2.0	1.75	2.0	1.5	1.5	1.25	1.75	1.25	1.75	1.75	1.5
	2.25	1.75	2.25	2.25	2.25	2.0	2.25	2.0	2.0	2.0	2.75	2.75	1.5	1.5	1.5	1.5	1.25	2.0	1.5	2.0
	2.5	2.0	1.5	2.0	2.0	2.5	2.25	2.75	2.5	2.0	2.5	3.0	1.375	1.5	1.5	1.5	1.25	1.5	1.0	1.75
	3.0	2.0	3.0	2.5	1.75	1.75	2.25	2.25	2.0	1.5	2.5	2.25	1.75	1.5	1.75	1.5	1.0	1.5	1.25	1.5
	2.75	2.25	2.5	2.0	2.25	2.25	2.55	2.0	1.75	2.0	2.75	2.0	1.5	1.25	2.0	1.25	1.0	1.5	1.5	1.5
	2.0	2.0	1.5	2.0	2.0	2.0	2.0	2.75	2.0	2.0	2.5	2.25	1.5	1.5	1.0	1.0	1.0	1.5	1.25	2.0
	1.5	1.75	2.25	2.25	2.0	2.25	2.25	1.75	2.25	2.25	2.0	3.0	1.375	1.5	1.75	1.5	1.0	1.5	1.0	1.75
													1.5	1.5	1.5	1.5	1.0	1.75	1.5	1.5
													1.0	1.25	1.25	1.75	1.0	2.0	1.75	1.5
													1.75	1.5	1.5	1.5	1.0	1.75	1.25	1.75
													1.25	1.25	1.25	1.5	1.0	1.75	1.25	1.75
													1.0	1.5	1.25	1.5	1.0	1.5	1.5	1.5
Averages.....	2.270	2.310	2.020	2.290	2.270	2.230	2.140	2.340	2.100	2.130	2.490	2.410	1.49	1.45	1.525	1.516	1.070	1.667	1.491	1.800

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	3.00	1.1811	B¹	3.50	1.3779	B¹	3.00	1.1811	B¹	3.00	1.1811	B¹	1.75	0.6889	B¹	1.25	0.4921
	B²	4.00	1.5748	B²	2.75	1.0826	B²	3.00	1.1811	B²	3.75	1.4763	B³	1.75	6.6889	B²	2.00	0.7874
	B³	3.00	1.1811	B³	3.00	1.1811	B³	3.00	1.1811	B³	3.25	1.2705	B³	2.00	0.7874	B³	2.25	0.8858
													B⁴	2.00	0.7874	B⁴	2.50	0.9842
Highest.....	.....	4.00	1.5748	.....	3.50	1.3779	.....	3.00	1.1811	.....	3.75	1.4763	.....	2.00	0.7874	.....	2.50	0.9842
Minimum measurements.	B¹	1.50	0.5905	B¹	1.50	0.5905	B₁	1.75	0.6889	B¹	1.50	0.5905	B¹	1.00	0.3937	B¹	1.00	0.3937
	B²	1.75	0.6889	B²	1.75	0.6889	B²	1.75	0.6889	B²	1.25	0.4921	B²	1.25	0.4921	B²	1.50	0.5905
	B³	1.25	0.4921	B³	1.25	0.4921	B³	1.50	0.5905	B³	1.75	0.6889	B³	1.00	0.3937	B³	1.00	0.3937
													B⁴	1.00	0.3937	B⁴	1.00	0.3937
Lowest.....	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.50	0.5905	.....	1.25	0.4921	.....	1.00	0.3937	.....	1.00	0.3937
Average measurements..	B¹	2.270	0.8936	B¹	2.290	0.9015	B¹	2.140	0.8425	B¹	2.130	0.8385	B¹	1.400	0.5511	B¹	1.070	0.4213
	B²	2.310	0.9094	B²	2.270	0.8936	B²	2.340	0.9212	B²	2.490	0.9803	B²	1.450	0.5705	B²	1.667	0.6562
	B³	2.020	0.7952	B³	2.230	0.8779	B³	2.100	0.8267	B³	2.410	0.9488	B³	1.525	0.6003	B³	1.491	0.6870
													B⁴	1.516	0.5968	B⁴	1.800	0.7086
Average.....	.....	2.200	0.8661	.....	2.263	0.8909	.....	2.193	0.8633	.....	1.343	0.9224	.....	1.472	0.5795	.....	1.507	0.5933
Measurements above average..	.....	36		.....	26		.....	36		.....	32		.....	84		.....	43	
Measurements below average..	.....	39		.....	49		.....	39		.....	43		.....	36		.....	77	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																			
Catalogue number of samples	98.				99.					99 A.					100.					
Length of fiber in crimp	1¼ inches.				2 1/16 inches.					2½ inches.					2¼ inches.					
Number of crimps per inch	30.				26.					[illegible]					30.					
Number of section	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.	B⁵.	
Actual measurement in centimillimeters.	1.0	1.25	2.0	1.5	1.75	1.5	2.0	2.5	1.75	1.25	1.5	1.75	2.0	1.75	1.75	1.25	1.25	2.0	2.0	
	1.25	1.75	2.0	2.0	1.5	1.5	1.5	1.25	1.75	1.25	1.5	1.75	1.5	2.0	1.5	1.5	1.5	2.0	2.0	
	1.0	2.0	1.5	2.0	1.75	1.25	1.5	1.75	2.0	1.5	1.5	1.5	1.5	2.0	1.75	1.5	1.75	1.25	2.0	
	1.0	1.25	2.5	2.0	1.75	1.75	1.25	1.5	1.5	1.5	1.5	1.5	1.5	1.75	1.5	1.5	1.25	1.5	1.5	
	1.75	2.0	1.5	1.5	1.5	1.5	1.5	1.5	1.75	1.25	1.5	2.0	1.25	1.75	1.25	1.5	1.5	1.5	1.5	
	1.0	1.5	1.75	1.75	1.5	1.5	2.0	2.5	1.75	1.75	1.5	1.75	1.5	1.75	1.75	1.5	1.5	1.5	2.0	
	1.5	1.75	2.0	2.0	1.5	2.0	1.75	1.75	1.5	1.5	2.0	1.75	1.75	1.75	1.25	1.5	1.5	1.75	1.5	
	1.5	1.5	2.0	1.5	1.5	1.5	2.0	1.75	1.75	1.5	1.75	1.75	1.5	1.5	1.5	1.75	1.5	1.5	1.75	
	1.5	2.0	2.0	2.0	1.5	1.5	1.75	1.75	1.5	1.0	1.75	1.75	1.5	1.25	1.25	1.5	1.75	2.0	1.5	
	1.5	2.25	1.5	1.75	1.0	2.0	1.75	1.75	1.75	1.5	1.5	2.0	1.5	1.75	1.5	1.5	1.75	1.25	1.5	
	1.75	1.75	1.5	2.0	1.5	1.5	1.5	1.75	2.0	1.25	1.75	1.75	1.5	1.5	1.25	1.5	1.5	1.5	1.5	
	1.5	1.25	1.5	2.0	1.5	2.0	1.5	2.0	1.75	1.25	1.5	1.5	1.75	1.5	1.0	1.5	1.5	1.5	1.5	
	1.25	2.0	2.0	1.25	1.5	1.75	1.75	2.0	2.0	1.0	1.5	1.75	1.5	1.5	1.0	1.5	1.0	1.5	1.5	
	1.5	1.75	1.25	1.75	1.25	1.75	1.5	1.5	1.75	1.5	1.25	1.5	1.75	1.75	2.0	1.5	1.5	1.75	1.5	
	1.0	2.25	2.0	1.5	1.5	1.5	2.0	2.0	1.75	1.25	1.25	1.75	1.5	2.0	1.25	1.5	1.5	1.5	1.5	
	1.5	1.5	2.0	1.75	1.5	1.5	2.0	2.25	2.0	1.25	1.75	1.75	1.5	1.5	1.5	1.75	1.75	1.5	1.5	
	1.0	2.0	2.0	2.0	1.5	1.5	2.0	1.25	2.0	1.25	1.5	1.5	1.75	2.0	1.5	1.25	1.5	1.25	2.0	
	1.5	1.75	2.0	1.75	1.5	1.5	2.0	2.25	2.0	1.25	1.75	2.0	1.75	2.0	1.5	1.5	1.5	1.5	2.0	
	1.5	2.0	2.0	2.0	1.5	1.75	1.5	1.5	1.75	1.5	1.5	2.25	1.75	1.5	1.0	1.5	1.5	1.5	1.75	
	1.25	2.0	2.0	2.0	1.5	1.5	1.5	1.5	1.75	1.5	1.5	1.75	1.75	1.75	1.25	1.25	1.75	2.0	1.5	
	1.25	2.0	1.75	2.0	1.5	1.25	1.5	2.25	2.0	1.5	1.25	1.75	1.5	1.75	1.0	1.5	1.5	1.5	1.5	
	1.25	1.75	1.25	1.5	1.75	1.75	1.5	1.5	2.0	1.25	1.5	1.75	1.75	1.5	1.0	1.5	1.75	1.5	2.25	
	1.25	1.75	2.0	1.5	1.0	2.0	1.75	2.0	2.0	1.25	1.5	1.75	1.5	1.5	1.25	1.5	1.5	1.5	1.5	
	1.25	1.5	2.0	2.25	1.25	1.75	1.25	1.75	2.0	1.5	1.75	1.75	1.75	1.75	1.75	1.5	1.5	1.5	1.5	
	1.25	2.0	2.0	2.25	1.5	1.5	1.5	2.0	1.5	1.5	1.5	1.75	1.75	1.5	1.5	1.5	1.5	1.0	1.5	
	1.5	1.5	1.75	1.75	1.75	2.0	1.0	2.0	2.0	1.25	1.75	1.5	1.5	1.5	1.5	1.5	1.5	1.25	1.5	
	1.0	2.0	1.5	1.5	1.0	1.75	1.25	2.0	2.0	1.5	1.5	1.5	1.0	2.0	1.75	1.5	1.5	1.75	1.5	
	1.0	2.0	2.0	1.75	1.5	1.75	2.25	1.5	2.25	0.75	1.5	1.5	1.25	1.5	1.25	2.0	1.75	1.5	1.5	
	1.75	1.5	2.0	1.75	1.5	2.0	1.5	1.5	2.25	1.5	1.5	1.5	1.25	1.5	1.5	1.5	1.5	1.5	1.5	
	1.25	2.0	1.5	2.0	2.0	2.0	2.0	1.5	1.0	1.5	1.5	1.75	1.5	1.25	1.5	1.5	1.5	1.5	1.5	
Averages	1.316	1.800	1.825	1.808	1.508	1.666	1.725	1.800	1.822	1.350	1.550	1.725	1.566	1.675	1.400	1.508	1.525	1.541	1.641	

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:												
Maximum measurements.	B¹	1.75	0.6889	B¹	2.0	0.7874	B¹	1.75	0.6889	B¹	2.0	0.7874
	B²	2.25	0.8858	B²	2.0	0.7874	B²	2.0	0.7874	B²	2.0	0.7874
	B³	2.5	0.9842	B³	2.25	0.8858	B³	2.25	0.8858	B³	1.75	0.6889
	B⁴	2.25	0.8858	B⁴	2.25	0.8858	B⁴	2.0	0.7874	B⁴	2.0	0.7874
				B⁵	2.25	0.8858	B⁵	2.0	0.7874	B⁵	2.25	0.8858
Highest		2.5	0.9842		2.25	0.8858		2.25	0.8858		2.25	0.8858
Minimum measurements.	B¹	1.0	0.3937	B¹	1.0	0.3937	B¹	0.75	0.2972	B¹	1.0	0.3937
	B²	1.25	0.4921	B²	1.25	0.4921	B²	1.25	0.4921	B²	1.25	0.4921
	B³	1.25	0.4921	B³	1.0	0.3937	B³	1.5	0.5905	B³	1.0	0.3937
	B⁴	1.25	0.4921	B⁴	1.25	0.4921	B⁴	1.0	0.3937	B⁴	1.0	0.3937
				B⁵	1.0	0.3937	B⁵	1.25	0.4921	B⁵	1.5	0.5905
Lowest		1.0	0.3937		1.0	0.3937		0.75	0.2972		1.0	0.3937
Average measurements.	B¹	1.316	0.5181	B¹	1.508	0.5936	B¹	1.350	0.5314	B¹	1.400	0.5511
	B²	1.800	0.7086	B²	1.666	0.6559	B²	1.550	0.6102	B²	1.508	0.5936
	B³	1.825	0.7185	B³	1.725	0.6791	B³	1.725	0.6791	B³	1.525	0.6003
	B⁴	1.808	0.7118	B⁴	1.800	0.7086	B⁴	1.566	0.6165	B⁴	1.541	0.6066
				B⁵	1.825	0.7185	B⁵	1.675	0.6594	B⁵	1.641	0.6460
Average		1.687	0.6641		1.704	0.6708		1.573	0.6193		1.523	0.5996
Measurements above average		68			79			57			33	
Measurements below average		52			71			93			118	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.																	
Catalogue number of samples..	101.					102.				103.					104.			
Length of fiber in crimp	2⅜ inches.					1⅝ inches.				2⅜ inches.					1⅛ inches.			
Number of crimps per inch....	30.					30.				25.					25.			
Number of section.....	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	1.75	1.75	1.5	1.5	1.5	1.75	1.25	1.5	1.5	2.0	1.5	2.75	2.25	2.5	1.25	2.0	1.5	1.5
	1.5	1.5	1.5	1.75	1.5	1.5	1.25	2.0	1.75	2.0	1.75	2.0	3.0	2.0	2.5	2.25	2.0	2.0
	1.25	1.5	1.75	1.5	1.5	1.75	1.25	1.5	1.25	1.5	1.5	3.0	2.0	3.5	1.5	2.5	2.25	2.5
	1.25	1.75	1.75	1.5	1.5	1.5	1.05	1.75	1.5	2.0	1.5	2.25	2.0	2.0	2.0	2.0	1.5	1.75
	1.5	1.25	1.75	1.25	1.25	1.5	1.25	1.75	1.5	2.0	1.5	2.5	2.0	2.25	1.75	2.25	1.75	1.75
	1.5	1.5	1.5	2.0	1.5	1.75	1.5	1.5	1.5	1.5	1.25	2.5	2.0	2.0	2.25	1.5	2.5	2.0
	1.75	1.5	1.75	1.5	1.75	1.25	1.25	1.75	1.5	1.5	1.5	2.0	2.0	2.25	2.25	2.0	1.75	1.75
	1.5	1.5	1.5	1.5	1.75	2.0	1.25	1.5	1.5	2.0	1.5	2.5	2.0	2.0	1.5	1.75	2.0	1.5
	1.5	1.5	1.75	1.5	1.5	1.75	1.5	1.75	2.0	1.75	2.25	2.25	2.0	1.75	2.25	1.5	1.5	2.0
	1.0	1.5	1.5	1.5	1.5	2.0	1.5	1.5	1.5	1.75	1.5	2.0	2.0	2.0	1.75	2.0	1.75	1.75
	1.25	1.5	1.25	1.5	1.0	2.0	1.0	1.75	1.5	1.5	1.5	2.25	2.25	2.0	2.25	1.75	1.5	1.5
	1.5	1.75	1.5	1.5	1.25	1.0	2.0	1.75	1.75	1.5	1.5	2.25	2.25	2.0	1.75	1.75	1.5	1.75
	1.25	1.75	1.25	1.5	1.5	2.25	1.5	1.5	2.0	1.75	1.25	2.0	1.75	2.0	1.75	2.0	1.75	1.75
	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.25	2.0	1.5	1.25	1.5	2.0	1.75	1.5	2.0	1.75	1.25
	1.5	1.5	1.5	1.5	1.5	2.0	1.0	1.25	1.75	1.75	1.75	2.0	2.0	2.0	2.0	2.0	1.75	1.75
	1.5	1.75	1.75	1.75	1.5	1.25	1.5	1.75	1.5	2.0	1.75	2.25	2.0	1.5	1.75	1.75	2.0	1.5
	1.5	1.75	2.0	1.5	1.5	1.5	1.5	2.5	1.75	1.75	1.5	1.5	1.75	1.75	1.75	1.75	1.75	1.5
	1.5	1.25	1.5	1.75	1.5	1.25	1.75	2.0	1.75	2.0	1.75	2.25	2.0	2.0	1.5	3.0	2.5	1.75
	1.25	1.5	1.5	1.25	1.5	1.25	1.75	1.5	1.5	1.5	1.5	1.75	1.75	2.0	1.5	2.25	2.25	1.25
	1.5	1.5	1.5	1.5	1.5	2.0	1.25	1.5	1.75	1.5	1.25	2.0	2.25	1.5	1.5	1.5	1.75	1.75
	1.25	1.75	1.5	1.75	1.5	1.5	1.25	1.75	1.5	1.5	1.25	1.75	1.5	1.75	2.0	2.0	2.25	1.75
	1.5	1.5	1.75	1.5	1.25	1.5	1.5	1.75	1.75	2.0	1.75	2.0	2.0	2.0	2.0	1.5	1.75	1.5
	1.5	1.5	1.75	1.5	1.5	1.5	1.75	1.25	2.0	1.5	1.75	2.0	1.25	1.75	1.75	2.0	2.0	1.75
	1.5	1.5	1.75	1.5	1.5	1.5	1.5	1.25	2.0	1.25	1.5	1.75	2.0	1.75	2.0	1.5	2.0	1.75
	1.5	1.5	1.5	1.75	1.25	1.5	1.5	1.5	1.5	1.5	1.5	2.0	2.25	1.75	1.75	1.75	1.75	1.5
	1.25	1.75	1.75	1.5	1.75	1.5	1.5	1.5	1.75	1.75	1.75	2.5	2.0	2.0	1.75	1.75	1.5	1.5
	1.25	1.5	1.25	1.5	1.5	2.0	2.25	1.75	1.75	1.5	1.5	2.5	1.75	1.75	2.0	2.5	2.5	1.5
	1.0	1.5	1.25	1.75	1.75	1.5	1.25	1.75	2.0	1.75	1.25	2.25	1.75	2.0	1.5	2.0	2.0	1.5
	1.5	1.5	1.25	1.5	1.25	1.5	1.5	1.5	2.0	2.0	1.5	1.5	2.0	2.0	1.75	1.75	1.75	1.25
	1.5	1.5	1.5	1.25	1.5	1.5	1.5	1.75	1.0	1.5	1.5	1.75	2.0	2.0	1.75	2.0	1.5	1.75
Averages.....	1.425	1.550	1.558	1.541	1.475	1.625	1.458	1.633	1.683	1.733	1.600	2.150	1.991	1.983	1.816	1.975	1.866	1.666

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:												
Maximum measurements.	B¹	1.75	0.6889	B¹	2.25	0.8858	B¹	2.0	0.7874	B¹	2.5	0.9842
	B²	1.75	0.6889	B²	2.25	0.8858	B²	1.75	0.6889	B²	3.0	1.1811
	B³	2.0	0.7874	B³	2.5	0.9842	B³	3.0	1.1811	B³	2.5	0.9842
	B⁴	2.0	0.7874	B⁴	2.0	0.7874	B⁴	3.0	1.1811	B⁴	2.5	0.9842
	B⁵	1.75	0.6889	.....	.....	.....	B⁵	3.5	1.3779	.....	.....	.....
Highest	.....	2.0	0.7874	.....	2.5	0.9842	.....	3.5	1.3779	.....	3.0	1.1811
Minimum measurements.	B¹	1.1	0.3937	B¹	1.0	0.3937	B¹	1.25	0.4921	B¹	1.25	0.4921
	B²	1.25	0.4921	B²	1.0	0.3937	B²	1.25	0.4921	B²	1.5	0.5905
	B³	1.25	0.4921	B³	1.25	0.4921	B³	1.5	0.5905	B³	1.5	0.5905
	B⁴	1.25	0.4921	B⁴	1.0	0.3937	B⁴	1.25	0.4921	B⁴	1.25	0.4921
	B⁵	1.0	0.3937	.....	.....	.....	B⁵	1.5	0.5905	.....	.....	.....
Lowest	.....	1.0	0.3937	.....	1.0	0.3937	.....	1.25	0.4921	.....	1.25	0.4921
Average measurements..	B¹	1.425	0.5610	B¹	1.625	0.6397	B¹	1.733	0.6822	B¹	1.816	0.7149
	B²	1.550	0.6102	B²	1.458	0.5739	B²	1.600	0.6299	B²	1.975	0.7775
	B³	1.558	0.6133	B³	1.633	0.6429	B³	2.150	0.8464	B³	1.868	0.7346
	B⁴	1.541	0.6066	B⁴	1.683	0.6625	B⁴	1.991	0.7838	B⁴	1.666	0.6559
	B⁵	1.475	0.5807	.....	.....	.....	B⁵	1.983	0.7807	.....	.....	.....
Average	.....	1.509	0.5940	.....	1.599	0.6295	.....	1.891	0.7444	.....	1.830	0.7204
Measurements above average..	.....	32		.....	47		.....	76		.....	44	
Measurements below average..	.....	118		.....	73		.....	74		.....	76	

TABLE II.—*Results of actual measurments of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.												SPANISH MERINO.			
Catalogue number of samples	104. A.				102.		103.			236.			1.			
Length of fiber in crimp	2½ inches.				1⅝ inches.		1⅝ inches.			2⅝ inches.			1⅝ inches.			
Number of crimps per inch	25.				28.		26.			22.			25.			
Number of section	B¹.	B².	B³.	B⁴.	B¹.	B².	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	1.25	2.25	1.25	1.25	1.375	1.5	1.375	1.125	1.5	2.25	2.75	2.75	2.25	2.0	2.25	2.0
	1.5	2.0	1.5	2.25	1.75	1.5	1.5	2.0	1.5	2.0	1.375	1.75	1.75	2.0	1.75	1.75
	1.75	1.25	1.75	1.75	1.125	1.75	1.5	1.375	1.625	1.75	2.125	2.625	2.0	2.0	1.5	1.75
	1.25	1.75	1.5	2.5	1.75	1.75	1.875	1.5	2.125	1.875	2.25	1.875	1.75	1.75	1.75	1.75
	1.25	1.5	2.25	1.5	1.375	1.75	1.5	1.5	1.5	1.75	1.25	2.0	2.0	2.0	1.75	2.0
	2.0	1.75	2.75	2.0	1.75	1.75	1.75	2.0	1.875	2.625	2.875	2.375	2.0	2.25	1.5	1.75
	1.25	1.5	2.0	1.5	1.5	1.25	1.5	1.375	2.0	2.0	1.625	1.875	2.0	1.5	2.0	1.75
	1.25	2.25	1.75	1.75	1.625	1.5	1.375	1.875	1.625	1.5	2.0	2.75	1.75	2.0	1.5	1.5
	1.25	1.75	1.75	2.25	1.75	1.625	1.5	1.5	1.75	1.875	2.75	2.375	2.0	2.0	1.75	2.0
	1.25	1.75	1.5	1.5	1.5	1.75	1.875	1.5	1.625	1.75	1.875	1.75	1.5	1.75	2.5	1.5
	2.0	1.75	2.0	2.0	1.75	1.25	1.625	1.875	1.75	2.25	2.0	1.75	1.25	2.0	1.5	2.0
	1.75	2.25	2.0	2.0	1.375	1.5	1.5	1.875	1.375	1.875	2.5	1.875	1.75	2.0	2.25	1.5
	1.25	1.75	2.5	2.0	2.0	1.375	1.5	1.625	1.625	1.625	2.0	2.25	1.75	2.0	2.0	2.25
	1.0	1.75	1.5	2.0	1.375	1.625	1.5	1.5	1.75	2.375	1.875	1.75	1.5	2.25	1.75	2.5
	1.25	1.5	2.0	1.75	1.25	1.125	1.75	1.625	2.375	1.875	2.125	2.5	1.75	2.25	2.0	2.0
	1.5	1.75	1.5	2.0	1.5	1.375	1.5	1.875	1.75	1.75	2.0	1.875	1.25	2.50	1.75	1.75
	1.75	1.25	2.0	2.5	1.375	1.5	1.375	1.75	1.625	2.125	1.875	2.0	1.75	3.0	2.0	2.25
	1.25	1.75	1.5	2.25	2.0	1.375	1.875	1.625	1.625	2.5	2.625	2.0	2.0	2.0	2.0	2.0
	1.25	1.5	1.75	2.0	1.5	1.375	1.75	1.25	1.625	2.0	2.0	1.875	2.0	1.75	2.0	2.0
	1.5	1.75	1.5	2.0	1.75	1.25	1.5	1.375	1.375	1.875	1.5	2.0	1.75	1.5	1.75	1.75
	1.25	1.75	2.0	1.75	1.875	1.375	1.5	1.5	1.375	1.75	1.75	1.25	2.0	1.75	2.0	2.0
	1.5	1.75	2.0	2.0	1.5	1.375	1.25	1.5	1.375	1.625	1.75	1.75	1.75	2.5	1.5	1.5
	1.75	1.5	2.0	2.0	1.5	1.5	1.5	1.75	1.5	1.5	2.0	2.75	1.5	2.0	2.0	1.75
	1.25	1.5	2.25	2.25	1.125	1.625	1.375	2.5	1.875	2.375	2.0	1.75	1.5	1.75	1.75	1.5
	1.25	1.5	2.0	2.0	1.125	1.75	1.25	2.125	1.625	1.75	1.5	1.75	2.0	1.75	2.0	1.5
	1.5	1.75	1.5	2.25	2.0	1.875	1.75	1.875	1.5	1.75	2.0	3.375	1.0	2.0	1.75	1.75
	1.75	2.0	2.5	1.75	2.0	1.875	1.375	1.625	1.75	1.875	2.875	1.75	2.0	2.0	2.25	2.0
	1.5	2.25	2.0	2.0	1.75	1.125	1.375	1.875	1.5	2.0	2.75	2.125	1.5	2.0	1.5	1.75
	1.5	1.75	1.5	2.0	1.275	1.625	1.5	1.5	2.5	1.5	1.625	1.875	1.5	2.0	2.0	1.5
	1.5	1.5	1.75	2.25	1.625	1.5	1.5	1.375	1.5	2.25	1.75	2.25	2.0	1.5	1.5	1.5
Averages	1.441	1.733	1.858	2.093	1.568	1.543	1.518	1.658	1.683	1.983	2.046	2.088	1.750	1.991	1.850	1.816

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	2.0	0.7874	B¹	2.0	0.7874	B¹	1.875	0.7381	B¹	2.625	1.0331	B¹	2.25	0.8858
	B²	2.25	0.8858	B²	1.875	0.7381	B²	2.5	0.9842	B²	2.875	1.1312	B²	3.0	1.1811
	B³	2.75	1.0826	...	.....	.....	B³	2.5	0.9842	B³	3.375	1.3287	B³	2.5	0.9842
	B⁴	2.5	0.9842	...	.....	.....	.....	.....	.....	.....	.....	.....	B⁴	2.5	0.9842
Highest	.....	2.75	1.0826	...	2.0	0.7874	.....	2.5	0.9842	.....	3.375	1.3287	.....	3.0	1.1811
Minimum measurements.	B¹	1.0	0.3937	B¹	1.125	0.4429	B¹	1.25	0.4921	B¹	1.5	0.5905	B¹	1.25	0.4921
	B²	1.25	0.4921	B²	1.125	0.4429	B²	1.125	0.4429	B²	1.375	0.5412	B²	1.5	0.5905
	B³	1.25	0.4921	...	.....	.....	B³	1.375	0.5413	B³	1.25	0.4921	B³	1.5	0.5905
	B⁴	1.25	0.4921	...	.....	.....	.....	.....	.....	.....	.....	.....	B⁴	1.5	0.5905
Lowest	.....	1.0	0.3937	...	1.125	0.4429	.....	1.125	0.4429	.....	1.25	0.4921	.....	1.25	0.4921
Average measurements.	B¹	1.441	0.5673	B¹	1.568	0.6173	B¹	1.518	0.5976	B¹	1.983	0.7846	B¹	1.788	0.6889
	B²	1.733	0.6822	B²	1.543	0.6074	B²	1.658	0.6527	B²	2.046	0.8055	B²	1.991	0.7838
	B³	1.858	0.7314	...	.....	.....	B³	1.683	0.6625	B³	2.088	0.8220	B³	1.850	0.7283
	B⁴	2.093	0.7874	...	.....	.....	.....	.....	.....	.....	.....	.....	B⁴	1.816	0.7149
Average	.....	1.758	0.6921	...	1.555	0.6122	.....	1.619	0.6374	.....	2.022	0.7960	.....	1.851	0.7285
Measurements above average	.....	34		...	34		.....	43		.....	39		.....	73	
Measurements below average	.....	76		...	26		.....	47		.....	81		.....	77	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	SPANISH MERINO.																	
Catalogue number of samples	5.				105.					106.				115.				
Length of fiber in crimp	1 1/8 inches.				2 3/8 inches.					2 1/8 inches.				3 1/8 inches.				
Number of crimps per inch	25.				——					——				——				
Number of section	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.
Actual measurement in centimillimeters.	2.0	1.75	2.5	1.5	1.5	1.75	1.25	1.75	1.5	1.5	2.0	2.0	1.75	2.5	2.375	1.75	1.75	1.75	3.0
	2.0	2.0	3.0	1.75	2.0	2.0	2.25	1.75	1.75	2.0	1.75	2.25	1.5	2.5	3.0	1.75	2.0	3.0	4.0
	2.0	2.5	2.0	1.5	1.25	1.5	1.75	2.5	1.25	1.5	1.75	2.0	2.0	2.125	2.0	1.5	3.25	1.5	2.25
	2.0	2.0	1.5	1.25	1.5	1.25	1.75	1.75	2.0	1.5	2.0	2.5	2.25	2.125	2.25	1.875	1.625	2.25	4.5
	2.0	1.75	2.5	1.25	1.5	1.5	1.5	2.25	2.0	1.75	2.25	2.0	1.5	2.25	1.75	2.75	2.0	2.5	2.75
	2.0	2.0	2.0	1.5	1.5	1.25	2.0	2.0	1.75	1.75	2.0	2.0	1.5	2.5	3.25	2.875	2.25	2.75	2.125
	2.25	2.0	2.0	2.0	1.25	1.25	1.75	2.0	2.0	2.0	2.0	2.25	2.25	2.5	2.25	2.0	2.5	2.0	2.5
	1.75	1.75	2.0	2.25	1.75	1.5	1.25	1.75	2.0	1.75	2.5	2.5	1.75	2.0	2.0	2.5	2.25	4.0	2.5
	1.75	2.5	2.0	1.5	1.25	1.5	1.25	2.0	2.0	2.0	1.75	2.0	1.5	2.25	1.75	1.625	2.0	2.375	1.75
	2.25	2.0	2.0	2.0	1.75	1.25	2.0	2.0	2.25	2.0	1.5	2.0	1.5	2.375	2.625	2.5	2.0	2.0	1.875
	2.5	1.5	2.0	1.5	1.75	1.75	2.0	2.0	2.75	1.75	2.0	2.25	1.75	1.5	2.25	2.0	1.625	2.0	2.25
	1.75	2.0	2.25	1.75	1.75	1.5	1.5	2.0	2.0	2.0	2.25	2.25	1.25	2.25	1.75	2.125	2.0	1.875	2.5
	2.0	2.0	2.25	1.5	1.5	2.0	2.0	2.0	1.5	2.0	2.0	2.0	1.5	2.25	2.0	2.25	2.5	3.0	2.0
	2.0	2.5	1.75	1.75	1.25	1.75	2.0	2.0	1.75	1.75	1.75	2.0	2.0	2.125	2.375	2.5	2.25	2.125	3.75
	2.25	2.25	1.5	1.75	1.25	1.75	1.75	1.75	1.75	1.5	1.75	2.25	2.0	1.75	2.25	2.125	2.25	2.125	3.25
	2.25	2.0	2.25	1.5	1.75	2.0	1.5	2.0	1.75	1.5	2.25	2.5	1.5	2.25	3.5	2.75	1.5	1.75	2.5
	2.25	1.75	2.25	2.0	1.75	1.75	2.0	1.5	1.75	2.25	2.25	2.5	1.25	2.125	2.0	2.25	1.625	2.0	1.75
	2.5	2.25	1.75	2.0	1.25	1.75	1.5	2.0	1.5	2.0	2.0	1.75	1.25	1.875	2.375	2.0	1.5	2.375	3.0
	1.75	2.25	2.25	1.75	1.75	1.25	1.75	1.75	2.0	1.75	2.0	2.25	1.75	2.0	2.25	2.0	1.5	2.25	2.375
	2.0	1.75	1.75	1.75	1.5	1.25	2.25	2.25	2.0	1.5	2.5	1.5	1.75	2.25	2.75	2.75	1.875	2.25	2.5
	2.0	2.0	2.25	1.5	1.25	2.0	1.5	1.75	2.0	2.0	2.25	1.5	1.75	2.375	2.0	1.875	2.0	2.0	2.5
	1.75	2.25	1.75	2.0	1.75	1.25	2.25	1.5	1.75	2.0	1.5	2.25	2.25	2.75	2.5	2.75	2.25	3.0	2.0
	1.75	1.75	2.25	1.75	1.75	1.5	2.0	2.0	1.5	2.0	2.0	2.5	1.5	1.875	2.0	3.5	2.5	1.875	2.25
	1.5	1.75	2.25	2.0	1.5	1.75	2.0	2.0	2.25	2.25	2.5	2.0	2.5	2.25	4.0	2.125	2.5	2.25	2.0
	1.5	1.75	2.0	1.25	1.25	1.75	1.75	1.25	1.75	2.0	2.0	2.0	1.5	2.25	2.0	2.375	2.5	2.5	3.0
	2.0	2.25	1.75	1.75	1.5	1.5	2.5	2.0	1.5	1.25	2.25	2.0	2.25	2.0	2.25	2.25	2.25	2.0	2.25
	2.0	1.75	2.25	2.0	1.25	1.75	2.0	2.0	1.5	1.5	1.75	2.0	1.75	2.5	2.0	2.125	3.5	2.125	1.625
	1.5	1.75	2.0	2.0	1.5	1.5	1.5	2.0	1.75	1.75	2.5	2.5	1.75	2.25	2.375	2.0	1.5	2.0	2.0
	1.75	2.0	1.75	2.0	1.25	1.5	1.75	2.0	2.0	2.0	2.0	3.0	1.75	2.0	2.5	2.0	1.5	2.375	3.25
	1.5	2.5	1.5	1.75	1.5	1.5	1.75	2.0	1.75	2.25	2.0	2.0	1.5	2.25	1.5	3.5	3.0	3.25	2.25
Averages	1.950	2.008	2.041	1.725	1.508	1.583	1.800	1.916	1.766	1.817	2.033	2.150	1.741	2.233	2.329	2.279	2.125	2.358	2.508

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:												
Maximum measurements.	B¹	2.25	0.8858	B¹	2.0	0.7874	B¹	2.25	0.8858	B¹	2.75	1.0826
	B²	2.50	0.9842	B²	2.0	0.7874	B²	2.5	0.9842	B²	4.0	1.5748
	B³	3.00	1.1811	B³	2.5	0.9842	B³	3.0	1.1811	B³	3.5	1.3779
	B⁴	2.25	0.8858	B⁴	2.25	0.8858	B⁴	2.5	0.9842	B⁴	3.5	1.3779
	.....	.....	.....	B⁵	2.25	0.8858	.....	.....	.....	B⁵	4.0	1.5748
	.....	.....	.....	.....	.....	.....	.....	.....	.....	B⁶	4.0	1.5748
Highest	.....	3.00	1.1811	.....	2.5	0.9842	.....	3.0	1.1811	.....	4.0	1.5748
Minimum measurements.	B¹	1.50	0.5905	B¹	1.25	0.4921	B¹	1.25	0.4921	B¹	1.50	0.5905
	B²	1.50	0.5905	B²	1.25	0.4921	B²	1.5	0.5905	B²	1.50	0.5905
	B³	1.50	0.5905	B³	1.25	0.4921	B³	1.5	0.5905	B³	1.50	0.5905
	B⁴	1.25	0.4921	B⁴	1.25	0.4921	B⁴	1.25	0.4921	B⁴	1.50	0.5905
	.....	.....	.....	B⁵	1.25	0.4921	.....	.....	.....	B⁵	1.50	0.5905
	.....	.....	.....	.....	.....	.....	.....	.....	.....	B⁶	1.625	0.6397
Lowest	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.50	0.5905
Average measurements.	B¹	1.950	0.7677	B¹	1.508	0.5936	B¹	1.817	0.7153	B¹	2.233	0.8791
	B²	2.008	0.7905	B²	1.583	0.6232	B²	2.033	0.8003	B²	2.329	0.9169
	B³	2.041	0.8035	B³	1.800	0.7086	B³	2.150	0.8464	B³	2.279	0.8972
	B⁴	1.725	0.6791	B⁴	1.916	0.7543	B⁴	1.741	0.6854	B⁴	2.125	0.8366
	.....	.....	.....	B⁵	1.766	0.6752	.....	.....	.....	B⁵	2.358	0.9283
	.....	.....	.....	.....	.....	.....	.....	.....	.....	B⁶	2.508	0.9873
Average	.....	1.931	0.7602	.....	1.714	0.6748	.....	1.935	0.7618	.....	2.305	0.9074
Measurements above average	.....	69		.....	94		.....	72		.....	65	
Measurements below average	.....	51		.....	56		.....	48		.....	115	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	SPANISH MERINO.																			
Catalogue number of samples	116.						117.							118.						
Length of fiber in crimp	3½ inches.						5 inches.							5 inches.						
Number of crimps per inch	16.						——							16.						
Number of section	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.	B⁷.	B¹.	B².	B³.	B⁴.	B⁵.		
Actual measurement in centimillimeters.	2.0	1.75	2.25	2.25	2.125	2.5	1.75	1.5	1.75	1.75	1.625	1.5	1.75	2.125	2.25	2.125	3.75	3.75		
	1.875	2.25	2.0	3.0	2.125	2.875	1.5	1.75	1.875	1.75	1.75	1.5	2.5	1.75	2.25	1.75	2.5	2.75		
	1.75	1.5	1.75	2.125	2.625	2.875	2.375	1.5	1.75	1.625	1.5	1.625	1.75	2.0	2.625	3.0	1.75	3.25		
	1.875	1.75	2.25	2.25	2.5	2.75	1.625	1.875	1.875	1.75	1.5	1.5	1.875	1.625	2.375	2.0	1.75	4.5		
	2.125	1.75	2.25	2.75	3.0	2.0	1.625	1.75	2.25	1.625	1.5	2.125	1.875	2.25	2.375	1.875	3.0	2.0		
	2.25	1.5	2.0	2.25	2.25	2.75	1.625	1.625	2.0	1.75	2.0	2.375	1.875	1.75	2.0	2.875	2.125	2.5		
	3.0	1.625	1.875	2.0	3.0	2.0	1.625	2.0	2.125	1.5	1.5	1.5	1.75	1.875	3.75	3.0	2.0	1.75		
	1.875	1.625	2.125	2.125	2.25	2.5	1.5	1.625	2.375	1.75	1.5	2.375	1.5	1.75	4.0	3.0	2.0	2.75		
	2.0	2.125	2.0	2.125	2.0	3.0	1.75	2.0	1.75	1.75	1.5	0.875	1.75	2.0	1.5	2.25	1.75	2.0		
	2.125	1.625	2.25	2.5	3.0	2.75	1.5	1.75	1.75	1.5	1.375	2.125	2.125	2.25	2.0	1.75	1.5	3.375		
	2.25	1.625	2.0	2.0	2.625	2.0	1.75	1.75	1.875	2.125	1.25	2.875	1.5	3.0	2.0	2.0	2.75	3.0		
	1.75	1.5	3.0	2.5	2.625	2.25	1.75	1.625	2.0	2.0	1.5	1.75	2.0	2.875	1.625	2.25	1.75	2.5		
	2.0	1.75	1.875	2.25	3.0	2.5	2.5	1.875	1.625	1.875	1.375	1.5	1.5	2.125	1.75	2.75	2.25	3.0		
	1.75	1.75	2.25	2.125	3.0	2.25	2.0	2.5	2.25	2.125	1.0	1.625	1.75	2.5	3.25	2.875	2.0	2.75		
	2.5	2.0	1.75	2.875	2.75	3.0	1.5	2.0	1.75	2.125	1.5	1.5	2.75	2.5	1.75	2.75	1.75	1.75		
	1.75	1.875	1.75	2.5	2.5	2.0	1.625	2.25	1.75	2.0	1.25	1.875	1.5	2.0	1.5	1.625	2.125	2.25		
	2.0	1.25	2.25	2.5	2.5	2.25	1.5	1.75	2.25	2.0	2.25	1.75	1.625	3.0	1.5	3.25	1.75	1.5		
	2.875	1.5	1.75	3.0	2.5	1.75	1.5	2.5	1.75	1.625	1.625	2.0	1.75	1.875	2.0	2.125	2.0	1.5		
	2.5	2.0	1.875	2.5	2.5	3.0	1.625	2.125	2.125	2.0	1.5	1.5	1.625	1.75	2.75	1.75	3.75	2.25		
	2.0	1.875	1.625	2.25	2.25	2.5	1.5	1.625	3.0	3.0	1.25	1.5	2.0	3.0	3.0	2.5	2.5	1.5		
	2.5	1.75	1.625	2.375	2.75	2.5	1.75	1.625	1.75	2.125	2.125	1.625	1.75	1.875	1.875	2.0	1.5	2.0		
	2.0	1.875	1.625	2.75	2.75	2.125	1.5	1.75	3.0	2.25	1.375	1.875	2.0	2.0	1.75	1.75	3.5	2.75		
	2.0	2.0	2.25	2.625	2.375	1.75	1.5	1.75	2.0	1.625	1.375	1.875	1.625	2.875	3.25	1.75	4.25	3.75		
	2.75	1.875	1.875	2.625	2.625	2.125	1.5	1.875	1.625	1.75	1.375	1.625	1.5	2.125	1.5	3.0	2.0	2.62		
	2.125	1.75	1.625	2.625	2.5	3.25	1.75	2.5	1.75	1.5	2.0	1.75	1.25	1.75	1.75	2.75	2.0	2.25		
	1.875	1.875	2.25	2.625	2.5	2.0	2.0	1.5	3.0	1.875	1.5	1.5	1.5	1.625	1.75	2.0	2.0	2.62		
	1.75	1.375	1.50	2.125	2.250	2.25	1.625	2.0	1.875	1.5	1.75	2.125	1.875	1.75	1.5	2.125	2.5	1.87		
	1.75	1.5	2.5	2.875	2.0	2.75	1.625	2.0	1.75	2.0	1.5	1.75	1.875	2.125	1.5	2.0	2.125	1.62		
	2.375	2.0	2.25	2.125	2.75	2.5	1.75	1.875	2.25	1.875	1.25	1.63	1.75	2.375	1.75	2.0	1.75	3.25		
	2.5	1.75	2.0	3.0	2.5	2.0	1.75	2.125	1.75	2.125	1.25	2.125	1.625	2.875	1.875	1.875	2.125	2.75		
Averages	2.079	1.704	1.975	2.337	2.575	2.430	1.712	1.862	1.920	1.941	1.525	1.745	1.783	2.002	2.225	2.223	2.250	2.537		

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:									
Maximum measurements.	B¹	2.875	1.1318	B¹	2.50	0.9842	B¹	3.0	1.1811
	B²	2.25	0.8858	B²	2.50	0.9842	B²	4.0	1.5748
	B³	2.50	0.9842	B³	2.375	0.9350	B³	3.25	1.2795
	B⁴	2.875	1.1318	B⁴	3.0	1.1811	B⁴	4.25	1.6732
	B⁵	3.25	1.2795	B⁵	2.25	0.8858	B⁵	4.50	1.7716
	B⁶	3.25	1.2795	B⁶	2.375	0.9350			
				B⁷	2.75	1.0826			
Highest		3.25	1.2795		3.0	1.1811		4.50	1.7716
Minimum measurements.	B¹	1.75	0.6889	B¹	1.50	0.5905	B¹	1.625	0.6397
	B²	1.25	0.4921	B²	1.50	0.5905	B²	1.50	0.5905
	B³	1.50	0.5905	B³	1.50	0.5905	B³	1.625	0.6397
	B⁴	2.0	0.7874	B⁴	1.50	0.5905	B⁴	1.50	0.5905
	B⁵	2.0	0.7874	B⁵	1.25	0.4921	B⁵	1.50	0.5905
	B⁶	1.75	0.6889	B⁶	1.25	0.4921			
				B⁷	1.25	0.4921			
Lowest		1.25	0.4921		1.25	0.4921		1.50	0.5905
Average measurements.	B¹	2.079	0.8185	B¹	1.712	0.6740	B¹	2.002	0.8118
	B²	1.704	0.6708	B²	1.862	0.7330	B²	2.225	0.8759
	B³	1.975	0.7775	B³	1.920	0.7559	B³	2.223	0.8751
	B⁴	2.337	0.9200	B⁴	1.941	0.7641	B⁴	2.250	0.8858
	B⁵	2.575	1.0137	B⁵	1.525	0.6003	B⁵	2.537	0.9988
	B⁶	2.430	0.9645	B⁶	1.745	0.6870			
				B⁷	1.783	0.7019			
Average		2.186	0.8606		1.784	0.7023		2.259	0.8893
Measurements above average		86			77			52	
Measurements below average		94			133			88	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	SPANISH MERINO.															
Catalogue number of samples	119.					120.					121.					
Length of fiber in crimp	2½ inches.					2¾ inches.					——					
Number of crimps per inch	20.					22.					——					
Number of section	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.
Actual measurement in centimillimeters.	1.5	1.625	1.875	2.0	2.0	2.125	1.625	2.5	1.5	2.0	1.5	2.5	1.75	2.125	2.375	2.25
	2.0	1.75	1.75	1.625	1.75	4.25	1.5	2.0	1.25	1.875	2.5	1.625	2.375	1.75	1.625	2.0
	1.5	1.5	2.0	2.125	2.0	2.25	2.0	2.0	1.5	2.5	2.375	2.375	2.0	2.375	1.25	1.875
	1.5	1.25	2.0	1.75	2.125	2.0	1.625	2.0	2.0	2.0	2.125	1.75	2.5	1.875	1.625	1.75
	1.75	1.25	2.0	2.125	1.75	2.0	1.5	2.25	2.0	1.75	1.75	1.75	2.625	2.25	2.0	1.75
	1.625	1.75	1.75	2.125	1.875	2.0	1.75	1.875	1.75	2.25	3.0	2.0	2.125	2.25	2.5	2.5
	1.5	1.75	1.75	1.75	2.125	2.25	1.5	1.875	1.625	2.125	1.75	2.0	1.75	2.625	1.5	2.5
	1.625	1.25	1.875	2 0	1.5	1.625	1.875	1.875	1.625	2.875	2.0	1.875	2.375	1.375	1.875	2,125
	1.5	1.625	1.625	1.5	2.0	1.875	1.625	2.125	1.870	1.875	1.875	2.0	2.875	1.875	2.0	2.0
	1.625	1.25	1.75	1.875	1.75	1.625	2.0	2.0	2.0	2.5	2.0	2.0	2.875	2.0	2.25	1.375
	1.875	1.5	2.25	1.5	2.0	1.875	2.0	1.625	1.75	2.5	1.75	1.625	1.5	2.0	2.0	2.125
	1.375	1.125	2.25	2.25	2.25	1.75	1.75	2.0	2.125	2.375	2.0	1.625	2.25	2.25	2.5	1.75
	1.75	1.5	2.125	2.25	2.5	2.5	2.0	2.125	1.625	1.75	1.75	2.0	2.375	1.875	1.375	1.875
	1.5	1.375	2.0	2.125	2.5	2.25	1.75	2.375	1.875	2.25	2.375	2.125	2.375	2.125	1.625	2.375
	1.75	1.25	1.625	2.375	2.25	2.375	2.5	1.625	1.75	2.5	1.625	1.75	1.75	2.0	2.5	2.25
	1.5	1.625	1.75	1.875	2.25	1.625	1.5	1.625	2.375	2.125	2.25	2.0	2.5	1.5	2.0	1.75
	1.5	1.375	2.0	2.0	2.125	2.0	2.0	2.0	2.25	1.75	2.125	1.875	3.0	1.75	2.5	1.625
	1.875	1.5	1.875	2.5	1.875	1.75	1.875	1.75	1.75	2.25	2.0	2.325	1.875	2.125	1.875	1.875
	1.875	1.875	2.0	2.5	2.0	2.125	2.25	1.875	2.125	2.5	2.5	2.0	2.0	2.25	2.0	2.0
	1.5	1.75	2.125	1.625	2.125	2.0	1.5	1.625	2.0	2.375	1.875	2.5	1.825	2.0	2.5	1.625
	1.75	1.625	1.75	2.375	2.125	2.5	1.625	1.5	1.75	2.0	2.5	2.125	2.875	1.25	1.875	1.75
	2.0	2.125	1.875	2.0	1.5	1.5	1.75	2.5	2.0	1.875	2.125	1.625	2.25	1.625	1.875	1.5
	1.375	2.125	2.25	1.75	2.0	1.5	1.875	1.75	1.875	1.875	2.0	1.875	1.875	2.25	2.375	1.875
	1.625	1.625	1.5	2.0	2.25	2.0	2.0	2.0	1.625	2.5	2.0	2.5	2.625	1.875	2.375	1.375
	1.625	1.375	1.625	2.0	1.625	1.625	1.625	2.375	1.875	2.0	2.375	2.125	3.125	2.5	2.375	1.875
	1.5	2.0	2.125	1.75	2.0	2.375	1.5	1.75	2.0	2.5	2.25	2.25	2.5	1.5	2.625	1.875
	2.125	1.125	2.0	2.0	2.25	1.875	1.875	2.125	2.0	2.25	2.0	2.125	1.875	1.625	2.25	1.625
	1.5	1.25	2.125	1.875	2.0	1.5	1.75	2.0	1.75	2.5	1.75	2.5	2.25	1.5	1.875	2.0
	1.5	1.75	2.0	2.125	2.0	2.125	1.625	2.0	2.0	2.25	2.0	1.625	2 75	2.375	2.75	1.75
	2.0	1.75	2.125	2.0	2.0	2.0	1.875	1.75	1.75	2.5	2.375	1.75	2.0	2.25	1.625	1.875
Averages	1.654	1.550	1.925	1.991	2.016	2.041	1.786	1.962	1.845	2.212	2.083	2.008	2.287	1.970	2.062	1.894

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:									
Maximum measurements.	B¹	2.375	0.9350	B¹	4.25	1.6732	B¹	3.0	1.1811
	B²	2.125	0.8366	B²	2.50	0.9842	B²	2.50	0.9842
	B³	2.25	0.8858	B³	2.50	0.9842	B³	3.125	1.2303
	B⁴	2.50	0.9842	B⁴	2.375	0.9350	B⁴	2.50	0.9842
	B⁵	2.50	0.9842	B⁵	2.875	1.1318	B⁵	2.75	1.0826
							B⁶	2.50	0.9842
Highest		2.50	0.9842		4.25	1.6732		3.125	1.2303
Minimum measurements.	B¹	1.50	0.5905	B¹	1.50	0.5905	B¹	1.50	0.5905
	B²	1.25	0.4921	B²	1.50	0.5905	B²	1.625	0.6397
	B³	1.50	0.5905	B³	1.50	0.5905	B³	1.50	0.5905
	B⁴	1.50	0.5905	B⁴	1.25	0.4921	B⁴	1.25	0.4921
	B⁵	1.50	0.5905	B⁵	1.75	0.6889	B⁵	1.25	0.4921
							B⁶	1.375	0.5413
Lowest		1.25	0.4921		1.25	0.4921		1.25	0.4921
Average measurements.	B¹	1.654	0.6511	B¹	2.041	0.8035	B¹	2.083	0.8200
	B²	1.550	0.6102	B²	1.786	0.7031	B²	2.008	0.7905
	B³	1.925	0.7578	B³	1.962	0.7724	B³	2.287	0.9003
	B⁴	1.991	0.7838	B⁴	1.845	0.7263	B⁴	1.970	0.7755
	B⁵	2.016	0.7936	B⁵	2.212	0.8708	B⁵	2.062	0.8118
							B⁶	1.894	0.7456
Average		1.827	0.7192		1.969	0.7751		2.050	0.8070
Measurements above average		77			73			76	
Measurements below average		73			72			104	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	SPANISH MERINO.															
Catalogue number of samples	121 A.										122.					
Length of fiber in crimp	——										——					
Number of crimps per inch	20.										——					
Number of section	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.	B⁷.	B⁸.	B⁹.	B¹⁰.	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.
Actual measurement in centillimeters.	2.875	2.0	2.375	2.375	2.25	2.25	2.0	2.5	1.5	2.125	2.625	2.25	2.625	1.75	1.875	1.75
	2.0	2.25	1.875	2.125	2.375	2.0	2.125	2.25	2.0	1.75	1.875	1.75	2.75	2.125	2.0	1.875
	2.25	2.375	2.125	2.25	2.0	2.625	2.125	2.0	2.25	2.25	2.25	1.375	2.375	1.75	1.5	2.125
	1.875	2.25	2.5	2.375	1.875	1.875	1.625	2.25	1.625	2.25	2.25	2.75	2.75	1.875	1.625	2.75
	1.625	2.375	1.75	1.875	2.0	2.125	1.875	1.75	2.125	1.625	2.0	2.125	2.25	2.0	1.875	2.0
	2.50	2.75	1.75	2.0	1.875	2.25	2.375	1.625	1.625	2.75	2.5	2.125	2.125	1.875	2.875	2.0
	2.25	1.75	1.75	2.875	1.625	2.0	1.75	2.125	1.875	2.125	2.0	1.5	2.375	2.375	2.25	2.375
	2.0	1.875	1.75	2.125	2.125	2.25	2.5	1.75	1.625	1.5	1.75	2.5	2.625	2.125	1.75	2.25
	2.5	2.375	1.75	2.0	2.25	1.75	1.875	1.625	2.0	1.5	2.25	2.0	2.875	2.25	1.625	2.0
	2.0	2.25	2.0	2.0	2.0	1.25	2.5	1.875	1.75	1.5	2.25	2.125	3.0	2.0	2.25	2.375
	2.25	2.0	1.75	2.0	1.75	1.875	2.25	1.625	1.75	1.75	1.75	2.25	4.0	2.5	2.75	2.5
	1.875	2.0	2.25	1.75	1.875	3.25	1.875	1.875	2.25	1.5	2.25	2.25	2.875	2.0	2.0	2.0
	2.0	2.625	2.125	1.375	2.0	2.5	1.75	2.0	1.875	1.75	2.0	2.25	2.875	2.0	2.0	2.5
	2.125	2.25	2.625	1.875	2.375	1.875	2.25	1.875	1.875	1.75	2.375	2.125	2.75	2.125	1.625	2.25
	1.75	2.25	2.625	2.0	2.5	2.5	2.125	1.75	2.375	1.625	2.25	1.375	2.25	2.375	2.0	1.875
	2.5	1.25	1.875	3.0	2.125	2.0	2.375	1.75	1.875	2.0	2.25	2.25	1.875	2.0	2.125	1.625
	2.25	2.5	2.125	2.5	2.5	2.375	1.875	1.75	2.125	2.25	1.875	2.0	1.75	2.25	1.875	2.25
	2.25	2.25	2.25	2.25	2.375	1.75	2.25	2.125	2.5	1.75	3.25	2.125	2.5	2.125	2.25	2.875
	2.75	1.875	1.675	1.625	2.5	1.75	2.125	2.5	1.5	1.75	1.75	2.25	3.375	2.0	1.875	2.75
	3.0	1.75	2.25	2.0	2.0	2.0	2.0	2.25	1.625	2.0	2.25	2.125	2.25	2.375	1.75	2.25
	2.5	2.5	2.25	1.75	2.25	2.375	2.125	2.125	2.0	1.625	2.0	1.875	2.5	2.375	1.625	2.25
	2.625	2.25	2.875	2.75	2.5	1.25	2.0	2.5	1.625	2.0	1.875	2.5	2.375	2.0	1.875	2.5
	2.25	1.875	2.375	1.75	2.25	2.375	2.375	2.75	1.5	2.5	2.25	2.375	2.25	2.25	2.875	2.125
	1.75	2.25	1.875	2.25	2.0	1.75	1.75	2.25	1.875	1.75	2.375	2.5	2.5	2.0	2.0	2.375
	2.25	1.875	2.25	2.0	2.5	2.0	2.375	2.25	1.75	1.875	2.0	2.0	2.25	2.25	2.0	2.5
	1.875	4.0	1.875	2.75	2.25	1.75	1.375	2.125	2.0	2.75	2.125	1.875	2.875	2.5	2.0	1.875
	2.25	1.25	1.75	2.625	2.0	2.25	2.125	2.25	1.625	2.375	1.75	2.5	2.375	1.875	1.875	2.5
	2.0	1.875	2.375	1.875	2.0	2.5	2.125	1.75	1.875	2.0	1.875	2.25	2.75	2.0	1.75	1.5
	2.25	2.0	2.375	2.25	1.75	2.25	2.375	2.25	2.25	1.625	2.25	2.25	3.125	1.75	1.75	2.38
	2.0	1.75	2.125	2.25	2.0	2.5	2.125	2.25	1.625	1.75	2.25	2.375	2.75	2.75	1.875	2.5
Averages	2.212	2.304	2.106	2.154	2.125	2.088	2.087	2.062	1.855	1.941	2.153	2.130	2.550	2.124	1.983	2.025

	No. of section.	In centillimeters.	In thousandths of inch.	No. of section.	In centillimeters.	In thousandths of inch.	No. of section.	In centillimeters.	In thousandths of inch.
Recapitulation and reduction:									
Maximum measurements	B¹	2.0	1.1811	B⁶	2.25	1.2795	III	2.25	1.2795
	B²	4.25	1.6732	B⁷	2.5	0.9842	B²	2.75	1.0826
	B³	2.875	1.1318	B⁸	2.75	1.0826	B³	4.0	1.5748
	B⁴	3.0	1.1811	B⁹	2.5	0.9842	B⁴	2.75	1.0826
	B⁵	2.5	0.9842	II	2.75	1.0826	B⁵	2.875	1.1318
							B⁶	2.875	1.1318
Highest		4.25	1.6732		4.25	1.6732		4.0	1.5748
Minimum measurements	B¹	1.625	0.6397	B⁶	1.25	0.4921	B¹	1.75	0.6889
	B²	1.25	0.4921	B⁷	1.375	0.5413	B²	1.375	0.5413
	B³	1.625	0.6397	B⁸	1.625	0.6397	III	1.75	0.6889
	B⁴	1.625	0.6397	B⁹	1.5	0.5905	B⁴	1.75	0.6889
	B⁵	1.625	0.6397	B¹⁰	1.5	0.5905	B⁵	1.5	0.5905
							B⁶	1.5	0.5905
Lowest		1.25	0.4921		1.25	0.4921		1.375	0.5413
Average measurements	B¹	2.212	0.8708	B⁶	2.035	0.8011	B¹	2.153	0.8476
	B²	2.304	0.9070	B⁷	2.087	0.8116	B²	2.130	0.8385
	B³	2.106	0.8291	B⁸	2.062	0.8118	III	2.550	1.0039
	B⁴	2.154	0.8480	B⁹	1.855	0.7303	B⁴	2.124	0.8362
	B⁵	2.125	0.8366	B¹⁰	1.941	0.7641	B⁵	1.983	0.7807
							B⁶	2.225	0.8759
Average		2.180	0.8582		2.038	0.8024		2.194	0.8637
Measurements above average				121				85	
Measurements below average				179				87	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	SPANISH MERINO.					FRENCH MERINO.														
Catalogue number of sample	124.					123.					135.					127.				
Length of fiber in crimp	3½ inches.					2¾ inches.					2½ inches.					3¾ inches.				
Number of crimps per inch	20.					16.					22.					——				
Number of section	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.	B⁵.
Actual measurement in centimillimeters.	2.0	2.0	2.0	2.625	1.875	1.75	1.25	1.375	2.125	2.0	4.25	2.0	2.0	2.375	1.75	2.25	1.75	2.25	1.75	3.125
	2.0	1.875	2.0	2.0	2.0	2.0	1.375	1.0	2.625	1.75	2.125	2.0	1.75	2.0	1.5	2.25	1.75	2.625	3.125	3.125
	2.375	1.75	1.75	2.25	2.125	2.0	1.375	1.25	2.375	2.0	1.5	1.5	1.625	1.75	2.0	2.125	2.125	2.25	3.0	2.125
	2.375	2.0	1.625	2.25	1.875	1.25	1.375	2.0	2.5	2.75	1.75	1.625	2.0	2.0	1.75	2.375	3.0	2.75	3.0	3.5
	1.75	1.75	2.0	1.75	2.25	1.25	1.0	1.0	2.0	1.75	1.875	2.0	2.125	2.0	2.125	2.125	2.0	2.375	2.875	2.5
	1.625	2.25	2.25	1.75	1.75	1.625	4.0	1.125	1.5	1.625	1.75	1.75	1.5	1.625	1.75	2.875	2.25	2.75	2.875	2.5
	2.5	1.625	3.75	2.75	1.75	1.625	3.75	1.875	1.875	2.75	1.75	1.625	1.75	2.25	2.0	2.875	2.125	2.625	2.625	3.0
	1.75	1.75	2.0	2.375	1.5	1.75	1.5	1.375	2.0	2.0	1.75	2.0	2.375	1.875	1.75	2.125	1.625	2.25	2.5	2.625
	2.375	1.875	2.0	2.5	2.25	1.75	1.25	1.5	1.75	1.5	1.625	2.125	2.0	2.0	1.75	2.125	2.5	2.625	2.875	2.5
	1.875	2.0	1.875	1.75	2.125	2.75	2.125	1.625	2.25	1.875	1.75	1.5	1.625	2.125	2.125	3.125	2.125	2.875	2.75	2.25
	1.75	1.875	2.25	2.875	2.125	1.5	1.25	1.5	2.0	1.75	1.75	1.375	1.375	2.125	1.625	2.125	1.75	2.875	3.0	2.75
	2.0	2.0	1.75	2.0	2.5	2.0	2.0	1.5	1.625	1.75	1.625	1.5	1.375	2.0	2.0	2.25	1.875	2.5	3.0	3.25
	1.5	1.75	2.5	1.75	2.5	1.625	2.0	2.125	1.25	1.625	1.75	1.625	1.75	2.375	2.125	2.5	1.75	2.125	3.25	2.75
	2.5	1.5	2.125	1.625	2.25	1.75	2.0	1.75	2.5	1.875	2.25	1.75	2.0	1.875	2.0	2.75	2.0	2.5	3.25	3.5
	1.875	2.0	1.875	2.625	2.5	2.125	1.5	1.875	2.0	1.875	1.875	1.75	2.0	2.0	2.0	2.75	1.875	2.25	3.25	2.75
	2.25	1.75	2.875	2.0	2.75	1.5	2.25	1.375	2.375	1.75	1.5	2.5	2.125	2.125	2.0	2.25	2.0	2.375	2.5	2.625
	2.375	2.125	2.0	2.375	1.625	1.625	1.75	1.875	2.25	1.875	2.0	2.25	2.0	2.0	2.0	2.125	1.5	3.25	2.5	2.5
	2.0	2.375	2.25	2.25	1.625	1.625	1.125	1.25	1.75	2.5	2.125	1.375	1.75	2.125	1.875	2.0	1.625	2.375	3.25	2.5
	2.0	2.25	1.875	2.25	2.375	1.625	2.0	1.75	1.625	1.125	2.0	1.875	1.875	1.875	2.125	2.375	1.625	2.875	3.125	3.0
	2.375	1.875	2.0	2.375	1.25	1.875	1.25	1.75	2.0	2.375	2.125	1.875	1.75	1.5	1.875	2.0	3.125	2.375	3.0	2.25
	2.125	2.125	1.75	2.5	2.75	1.875	2.0	2.0	2.125	1.75	2.0	2.125	1.875	1.75	1.875	2.25	2.0	2.875	3.125	2.875
	2.75	1.875	1.75	2.375	1.5	1.5	1.75	1.5	2.0	2.375	2.25	1.875	1.875	1.75	1.875	2.375	2.0	3.0	3.0	2.875
	1.625	2.125	2.0	2.375	2.0	2.125	1.875	1.25	2.125	1.75	2.0	1.625	2.0	1.875	1.75	2.125	2.375	2.625	4.0	2.625
	1.875	2.0	2.0	2.25	2.375	1.75	1.25	1.0	2.5	1.75	2.0	1.75	1.75	1.5	1.375	2.0	2.5	2.75	2.375	2.875
	2.0	1.5	2.0	1.75	1.625	2.0	1.875	1.5	1.75	1.15	2.125	1.625	2.125	1.5	2.125	2.375	2.25	2.625	2.625	2.685
	2.25	1.625	2.0	2.375	1.5	1.5	1.625	1.5	1.625	1.625	1.875	1.75	1.75	2.0	2.25	2.375	2.5	2.5	3.25	3.125
	2.125	1.5	2.0	2.125	1.75	2.0	1.875	1.75	1.5	1.75	1.75	1.875	1.75	2.0	2.375	2.375	2.0	2.625	2.875	2.75
	1.75	2.0	2.25	2.0	2.0	2.0	1.375	1.625	2.0	2.0	1.75	1.625	2.0	2.25	2.0	2.0	2.625	3.5	3.0	2.75
	1.75	2.0	2.0	2.0	2.375	1.75	1.25	1.75	2.75	1.875	1.625	1.625	1.875	1.625	1.875	2.5	2.0	2.5	2.5	2.875
	1.75	2.0	1.75	1.75	1.875	1.875	1.125	1.5	2.625	1.75	2.125	1.5	2.5	1.875	2.0	2.125	1.625	3.25	3.25	2.625
Averages	2.041	1.937	2.075	2.187	2.091	1.779	1.737	1.575	2.035	1.880	1.954	1.845	2.175	1.937	1.920	2.329	2.075	2.637	2.916	2.770

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:												
Maximum measurements.	B¹	2.75	1.0826	B¹	2.75	1.0826	B¹	4.25	1.6732	B¹	3.125	1.2303
	B²	2.375	0.9350	B²	4.0	1.5748	B²	2.5	0.9842	B²	3.125	1.2303
	B³	3.75	1.4763	B³	2.125	0.8366	B³	2.375	0.9350	B³	3.25	1.2795
	B⁴	2.875	1.1318	B⁴	2.75	1.0826	B⁴	2.375	0.9350	B⁴	4.0	1.5748
	B⁵	2.75	1.0826	B⁵	2.75	1.0826	B⁵	2.375	0.9350	B⁵	3.5	1.3779
Highest		3.75	1.4763		4.0	1.5748		4.25	1.6732		4.0	1.5748
Minimum measurements.	B¹	1.5	0.5905	B¹	1.25	0.4921	B¹	1.5	0.5905	B¹	2.0	0.7874
	B²	1.5	0.5905	B²	1.0	0.3937	B²	2.375	0.5413	B²	1.5	0.5905
	B³	1.625	0.6307	B³	1.0	0.3937	B³	1.375	0.5413	B³	2.125	0.8366
	B⁴	1.75	0.6889	B⁴	1.25	0.4921	B⁴	1.5	0.5905	B⁴	1.75	0.6889
	B⁵	1.25	0.4921	B⁵	1.125	0.4429	B⁵	1.5	0.5905	B⁵	2.125	0.8366
Lowest		1.25	0.4921		1.0	0.3937		1.375	0.5413		1.5	0.5905
Average measurements	B¹	2.041	0.8035	B¹	1.779	0.7003	B¹	1.954	0.7692	B¹	2.329	0.9169
	B²	1.937	0.7625	B²	1.737	0.6838	B²	1.845	0.7263	B²	2.075	0.8169
	B³	2.075	0.8169	B³	1.575	0.6200	B³	2.175	0.8562	B³	2.637	1.0381
	B⁴	2.187	0.8610	B⁴	2.035	0.8011	B⁴	1.937	0.7625	B⁴	2.916	1.1480
	B⁵	2.091	0.8232	B⁵	1.880	0.7401	B⁵	1.920	0.7559	B⁵	2.770	1.0905
Average		2.066	0.8133		1.801	0.7090		1.966	0.7740		2.545	1.0019
Measurements above average		58			65			67			71	
Measurements below average		92			85			83			79	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	SAXON MERINO.				SILESIAN MERINO.								AUSTRALIAN MERINO.							
Catalogue number of samples	2.				3.				4.				6.				7.			
Length of fiber in crimp	2½ inches.				1¾ inches.				1½ inches.				——				——			
Number of crimps per inch	25.				25.				25.				——				——			
Number of section	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	1.875	1.625	2.125	1.875	1.75	1.75	1.75	1.75	2.0	1.5	2.25	1.25	1.75	1.875	1.75	2.125	2.375	2.0	1.75	1.625
	1.5	1.75	1.75	1.875	1.25	1.5	2.0	1.75	1.5	2.0	1.75	1.75	2.375	1.875	2.0	1.75	1.75	2.25	2.0	1.75
	1.375	1.875	1.875	1.875	1.5	1.5	1.75	2.25	1.5	1.75	2.0	1.5	2.25	1.875	1.75	1.75	2.5	1.875	1.75	2.5
	2.25	2.125	2.0	1.25	1.75	1.5	1.75	1.75	2.0	2.25	2.25	1.75	1.875	1.875	1.75	1.625	2.0	1.5	2.0	1.5
	1.875	1.75	2.0	1.5	1.5	1.75	1.5	1.75	1.25	2.25	1.75	2.0	1.75	1.875	2.125	1.625	2.75	1.5	2.0	2.375
	1.75	1.625	1.875	1.75	1.75	2.0	1.5	1.75	1.75	2.0	2.25	1.75	2.125	2.0	1.75	1.875	2.25	1.5	2.125	2.5
	1.375	1.875	1.75	1.75	1.75	2.0	1.5	1.75	1.5	2.0	2.0	2.25	2.75	2.375	1.75	1.5	1.5	2.0	2.0	2.0
	1.5	1.875	2.0	1.5	1.5	2.0	1.5	1.75	1.5	1.5	2.5	1.75	2.25	1.625	2.25	1.25	1.75	1.5	2.0	3.0
	1.125	1.625	1.625	1.625	1.5	1.75	2.0	2.0	1.25	2.0	1.75	2.0	2.25	1.5	1.875	2.0	2.0	1.5	1.75	2.0
	1.875	1.625	1.875	1.75	2.0	2.0	1.25	2.0	1.75	2.25	2.0	1.5	2.25	2.5	1.75	1.5	1.75	1.5	2.25	1.5
	1.375	2.125	1.875	1.375	2.0	1.75	1.75	2.5	1.5	2.25	1.75	1.75	2.125	1.875	1.5	1.75	2.0	1.625	2.0	1.4
	1.375	1.625	1.75	1.5	1.75	1.5	1.5	1.5	1.5	1.75	2.0	2.0	2.0	1.5	1.875	1.625	1.75	3.0	1.75	2.0
	1.375	1.75	1.875	1.5	1.5	1.75	1.5	2.5	2.25	2.0	2.5	1.5	2.25	2.0	1.75	1.375	1.75	1.875	1.625	2.25
	1.25	2.25	1.75	1.625	1.75	2.0	1.75	1.75	2.5	2.25	2.0	1.75	1.875	1.75	2.125	1.75	2.25	1.5	1.75	2.0
	1.75	1.75	1.875	1.875	2.0	1.25	2.0	2.5	1.75	2.75	2.25	1.75	1.5	1.5	2.0	1.875	2.0	1.5	1.875	1.875
	1.5	1.875	1.625	1.625	1.75	2.0	1.5	3.0	2.0	2.25	2.0	1.5	1.75	1.5	2.125	1.875	2.0	1.75	2.0	1.75
	1.75	2.0	1.75	1.0	1.5	3.0	1.5	1.75	1.5	2.5	2.0	1.5	2.5	2.0	1.875	1.875	2.0	1.625	1.75	2.375
	1.625	1.875	1.75	1.5	1.75	2.0	2.0	1.75	1.5	2.25	2.0	1.75	2.0	1.875	2.125	1.375	2.0	2.125	2.125	2.0
	1.125	1.75	2.0	1.375	1.5	1.5	1.5	2.0	2.0	2.0	2.0	1.75	1.5	1.5	2.0	1.875	1.5	1.875	1.5	2.25
	1.375	2.0	1.875	1.75	1.25	1.5	2.75	1.75	1.5	2.0	2.5	1.75	1.5	1.875	1.5	2.375	1.5	2.25	1.875	2.75
	2.0	1.625	1.875	1.75	2.25	2.0	2.5	2.0	2.0	2.0	2.25	1.5	1.75	2.375	2.0	1.5	1.5	1.75	1.75	2.25
	1.75	1.5	1.875	1.5	2.0	2.0	2.25	1.75	1.5	2.0	1.75	1.75	1.75	2.75	1.625	2.125	1.875	1.5	2.0	1.75
	1.5	2.0	1.625	2.375	1.5	2.25	1.5	2.0	2.0	1.75	2.0	1.5	1.5	2.0	1.75	1.5	1.5	1.875	2.125	1.625
	1.5	1.625	1.625	1.5	2.5	1.75	1.75	1.75	2.0	1.75	2.0	1.75	1.5	1.75	1.5	2.0	1.875	1.75	1.875	2.25
	1.375	1.75	1.875	1.75	2.0	1.5	2.0	1.5	1.75	1.75	2.0	1.5	1.5	1.5	1.875	1.75	1.875	1.75	2.0	2.5
	1.5	1.5	1.875	1.375	2.5	1.25	1.75	1.5	2.0	2.0	2.0	1.5	1.5	1.75	1.625	1.625	1.875	2.25	2.5	2.25
	1.75	1.875	1.625	2.0	1.75	2.25	1.75	1.5	1.5	2.0	2.0	2.5	1.375	1.75	1.75	1.875	1.875	2.25	1.875	1.875
	1.75	1.625	1.875	1.5	1.75	1.75	1.75	1.75	2.0	2.0	1.75	1.25	2.125	2.0	1.625	1.5	2.0	1.75	1.875	1.75
	1.5	1.75	1.875	1.625	2.0	2.0	2.25	2.5	2.0	2.0	1.75	1.75	1.75	2.0	2.0	1.875	1.75	2.25	1.875	2.0
	1.75	1.75	1.875	1.75	1.5	1.75	1.5	1.5	1.75	2.25	2.25	1.5	1.5	1.5	1.375	1.875	2.25	1.5	1.875	2.25
Averages	1.587	1.791	1.900	1.616	1.741	1.850	1.758	1.908	1.816	2.033	2.011	1.708	1.879	1.859	1.790	1.754	1.925	1.829	1.920	2.000

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	2.25	0.8858	B¹	2.25	0.8858	B¹	3.50	1.3779	B¹	2.875	1.1318	B¹	2.75	1.0826
	B²	2.25	0.8858	B²	3.00	1.1811	B²	2.75	1.0826	B²	2.750	1.0826	B²	3.00	1.1811
	B³	2.125	0.8366	B³	2.75	1.0826	B³	2.50	0.9842	B³	2.250	0.8858	B³	2.50	0.9842
	B⁴	2.375	0.9350	B⁴	3.00	1.1811	B⁴	2.50	0.9842	B⁴	2.375	0.9350	B⁴	2.75	1.0826
Highest	.....	2.375	0.9350	.....	3.00	1.1811	.....	3.50	1.3779	.....	2.875	1.1318	.....	3.00	1.1811
Minimum measurements.	B¹	1.125	0.4429	B¹	1.25	0.4921	B¹	1.25	0.4921	B¹	1.375	0.5413	B¹	1.5	0.5905
	B²	1.5	0.5905	B²	1.25	0.4921	B²	1.50	0.5905	B²	1.5	0.5905	B²	1.5	0.5905
	B³	1.625	0.6397	B³	1.25	0.492	B³	1.75	0.6889	B³	1.375	0.5413	B³	1.5	0.5905
	B⁴	1.0	0.3937	B⁴	1.50	0.5905	B⁴	1.25	0.4921	B⁴	1.25	0.4921	B⁴	1.5	0.5905
Lowest	.....	1.0	0.3937	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.5	0.5905
Average measurements.	B¹	1.587	0.6248	B¹	1.741	0.6854	B¹	1.816	0.7149	B¹	1.879	0.7397	B¹	1.925	0.7578
	B²	1.791	0.7051	B²	1.850	0.7283	B²	2.033	0.8005	B²	1.859	0.7318	B²	1.829	0.7200
	B³	1.900	0.7480	B³	1.758	0.6921	B³	2.011	0.8035	B³	1.790	0.7047	B³	1.920	0.7559
	B⁴	1.616	0.6362	B⁴	1.908	0.7511	B⁴	1.708	0.6692	B⁴	1.754	0.6906	B⁴	2.066	0.8133
Average	.....	1.723	0.6783	.....	1.814	0.7141	.....	1.897	0.7468	.....	1.250	0.7165	.....	1.935	0.7618
Measurements above average	.....	69		.....	42		.....	81		.....	80		.....	50	
Measurements below average	.....	51		.....	78		.....	56		.....	81		.....	64	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	AUSTRALIAN MERINO.				LEICESTER AND COTSWOLD.										
Catalogue number of samples..	16.				111.							19.			
Length of fiber in crimp.....	2 inches.				11½ inches.							2⅝ inches.			
Number of crimps per inch....	25.				——							——			
Number of section.....	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.	B⁷.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	2.75	2.375	1.875	1.625	2.0	4.0	4.0	3.5	3.0	4.0	4.25	2.375	3.0	3.0	2.875
	2.5	2.25	1.5	1.275	2.5	3.5	4.0	4.0	2.0	4.5	3.0	2.5	2.75	3.125	2.875
	1.625	2.125	1.875	1.75	3.0	4.25	3.25	3.5	2.0	4.5	3.25	3.25	2.75	3.25	2.375
	2.5	1.75	2.125	1.375	2.25	4.0	3.5	3.5	4.0	3.25	2.0	2.5	3.25	3.5	3.75
	2.75	2.0	1.375	1.625	1.75	3.25	4.25	4.0	2.5	3.5	4.5	2.75	2.875	3.375	2.75
	2.375	1.375	1.625	1.75	3.5	2.25	3.75	3.5	3.75	3.0	3.0	2.375	2.875	3.5	3.0
	1.75	1.625	1.875	2.25	3.75	3.0	4.0	3.25	3.5	6.25	3.75	2.5	3.625	3.25	2.25
	1.625	1.5	1.5	1.75	3.75	3.0	3.75	2.75	3.5	5.0	3.25	2.5	2.375	3.0	3.875
	2.75	1.5	1.5	1.0	3.5	3.25	2.75	3.5	3.0	4.0	2.0	2.5	3.375	3.25	3.0
	1.75	1.75	1.625	1.25	2.25	3.0	3.5	3.0	2.0	4.0	4.0	3.5	3.25	3.0	2.375
	1.875	1.875	2.0	1.5	2.75	3.25	4.25	4.5	3.75	3.5	3.5	2.75	2.625	3.25	3.0
	1.625	1.75	1.875	1.375	2.25	3.75	3.25	4.25	3.0	3.0	2.5	3.0	3.5	3.0	2.75
	1.5	1.625	1.375	1.375	3.5	4.0	4.0	3.75	4.0	4.25	3.75	3.25	4.0	3.375	2.25
	1.875	1.75	1.375	1.75	2.25	3.0	4.25	2.75	3.25	3.5	3.75	2.5	3.5	3.125	2.5
	1.625	1.875	1.875	1.5	3.75	3.25	3.75	4.0	4.25	4.0	3.75	2.875	2.375	4.0	3.0
	1.75	1.625	2.0	1.375	3.0	2.0	3.0	2.5	3.5	2.75	2.5	2.5	3.25	3.25	3.125
	2.25	1.75	1.625	1.875	2.75	4.25	3.5	4.0	3.25	3.5	2.25	4.0	2.75	3.25	2.0
	1.5	1.625	2.0	2.25	2.0	4.0	4.5	4.0	4.75	2.5	4.0	2.875	3.75	3.375	2.75
	2.5	1.625	1.375	1.25	3.75	3.5	3.0	3.0	3.5	4.0	4.5	2.5	3.25	2.5	2.25
	2.25	2.25	1.5	1.25	4.0	4.0	3.0	4.5	4.75	3.5	3.5	2.25	3.25	3.25	4.0
	1.375	2.375	1.75	2.0	4.0	4.0	3.75	3.5	3.25	3.0	2.75	2.75	3.375	3.875	3.0
	2.5	2.125	2.375	1.875	3.0	4.0	3.75	2.75	3.5	3.5	3.25	2.875	2.875	2.875	3.125
	2.25	2.25	1.75	1.75	2.5	4.0	2.5	4.5	3.5	3.5	3.25	2.375	3.25	3.375	2.25
	2.625	2.375	2.0	1.75	3.0	3.5	3.75	3.5	4.0	3.5	3.25	2.5	2.75	3.75	2.25
	2.5	1.625	2.125	1.75	3.0	3.5	3.75	3.0	3.5	3.0	3.0	2.5	3.0	3.125	5.75
	1.875	2.125	2.0	1.5	4.0	4.0	4.0	3.25	3.5	3.5	3.5	2.875	3.0	2.875	2.5
	1.625	1.625	2.0	1.5	2.75	3.75	3.75	3.5	4.0	4.0	2.75	2.75	3.0	2.875	2.0
	2.125	1.5	1.75	1.625	3.0	3.25	4.0	2.5	3.75	3.5	2.75	3.0	3.375	3.25	2.5
	2.375	1.875	2.25	1.0	2.25	3.0	3.5	3.5	3.75	3.75	4.0	2.5	3.375	3.375	3.125
	1.625	2.375	2.0	1.75	4.25	3.5	4.0	3.5	3.0	3.75	3.0	2.375	2.875	2.0	3.0
Averages.....	2.066	1.875	1.795	1.588	3.0000	3.4666	3.6666	3.5083	3.4166	3.5333	3.3000	2.725	3.108	3.200	2.775

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:									
Maximum measurements.	B¹	2.75	1.0826	B¹	4.25	1.6732	B¹	4.0	1.5748
	B²	2.375	0.9350	B³	4.25	1.6732	B²	4.0	1.5748
	B³	2.375	0.9350	B³	4.50	1.7716	B³	4.0	1.5748
	B⁴	2.25	0.8858	B⁴	4.50	1.7716	B⁴	4.0	1.5748
	.....	.....	.....	B⁵	4.75	1.8700	.....	.....	.....
	.....	.....	.....	B⁶	6.25	2.4606	.....	.....	.....
	.....	.....	.....	B⁷	4.50	1.7716	.....	.....	.....
Highest.....	.....	2.75	1.0828	.....	6.25	2.4606	.....	4.0	1.5748
Minimum measurements.	B¹	1.375	0.5413	B¹	2.0	0.7874	B¹	2.25	0.8858
	B²	1.375	0.5413	B²	2.25	0.8858	B²	2.375	0.9350
	B³	1.375	0.5412	B³	2.50	0.9842	B³	2.0	0.7874
	B⁴	1.0	0.3937	B⁴	2.50	0.9842	B⁴	2.0	0.7874
	.....	.....	.....	B⁵	2.0	0.7874	.....	.....	.....
	.....	.....	.....	B⁶	2.50	0.9842	.....	.....	.....
	.....	.....	.....	B⁷	2.0	0.7874	.....	.....	.....
Lowest	.....	1.0	0.3937	.....	2.0	0.7874	.....	2.0	0.7874
Average measurements..	B¹	2.066	0.8133	B¹	3.000	1.1811	B¹	2.725	1.0728
	B²	1.875	0.7380	B²	3.466	1.3645	B²	3.108	1.2236
	B³	1.795	0.7066	B³	3.508	1.3810	B³	3.200	1.2598
	B⁴	1.588	0.6251	B⁴	3.416	1.3448	B⁴	2.775	1.0925
	.....	.....	.....	B⁵	3.533	1.3909	.....	.....	.....
	.....	.....	.....	B⁶	3.300	1.2992	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....
Average.....	.....	1.831	0.7208	.....	3.370	1.3267	.....	2.952	1.1622
Measurements above average..	.....	53		.....	127		.....	62	
Measurements below average..	.....	67		.....	83		.....	58	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

ONE-HALF MERINO AND ONE-HALF COTSWOLD.

	129.						15.				20.				24.			
Catalogue number of samples																		
Length of fiber in crimp	4½ inches.						3 inches.				3½ inches.				2⅝ inches.			
Number of crimps per inch	——						20.				20.				[illegible]			
Number of section	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	3.5	2.0	2.5	2.0	2.0	3.0	2.375	1.375	1.5	1.375	2.0	1.875	2.375	2.5	2.0	1.875	2.5	2.625
	3.0	2.5	2.75	2.25	2.25	2.5	1.75	1.5	1.875	1.5	2.0	2.625	3.0	2.5	3.25	2.0	3.0	2.375
	4.0	2.75	2.5	2.5	2.0	2.0	2.125	1.625	1.875	1.75	2.5	2.75	2.5	2.375	1.875	2.5	2.625	2.5
	4.0	3.0	2.0	3.0	2.0	2.0	2.5	1.75	1.375	1.625	2.5	2.125	2.5	2.75	2.375	2.25	2.625	2.375
	2.25	2.0	2.25	2.0	2.0	2.0	2.0	1.625	1.5	1.625	2.25	1.875	2.5	2.75	2.375	2.375	2.875	1.875
	2.5	2.25	2.0	2.25	2.0	1.75	1.75	1.625	1.625	1.625	2.875	1.875	2.875	2.625	2.125	2.5	2.5	2.125
	3.0	2.25	2.0	2.5	2.0	2.0	1.625	1.625	1.625	1.75	2.375	1.75	2.875	2.75	3.75	2.125	2.25	2.875
	3.5	2.25	2.0	3.0	2.0	2.5	1.75	1.75	1.625	2.125	2.375	2.5	2.5	1.875	2.375	2.75	3.625	2.25
	4.0	2.25	2.5	3.0	1.75	1.75	1.625	1.5	1.5	1.75	2.25	2.0	2.375	2.875	1.875	2.0	2.625	1.875
	2.5	1.25	2.75	2.75	2.0	1.75	1.75	1.375	2.375	1.875	2.5	1.875	2.625	3.0	2.0	2.375	2.375	2.375
	2.25	3.0	2.0	3.5	2.5	2.0	1.5	1.5	1.875	1.75	2.25	3.0	2.25	2.5	3.375	2.375	2.25	2.25
	2.5	3.5	1.5	2.0	2.5	2.25	2.125	1.75	1.625	2.125	1.75	2.25	2.5	2.625	2.25	1.75	1.875	2.75
	2.5	2.5	1.5	1.75	2.25	2.5	1.5	1.5	1.375	1.625	1.875	2.5	2.375	2.25	2.375	2.25	2.875	3.25
	2.375	2.5	1.5	1.5	2.5	3.0	1.625	1.875	2.0	2.0	2.375	2.875	1.75	2.375	2.0	2.25	2.75	2.5
	1.5	3.25	3.0	1.375	2.0	2.0	1.625	2.375	1.5	1.75	1.875	2.375	2.5	2.375	2.25	2.25	1.875	2.5
	3.25	1.25	2.0	1.5	2.25	1.75	1.5	1.375	2.125	1.625	2.0	2.875	2.75	2.5	2.0	1.625	2.375	2.875
	3.0	3.0	1.75	1.75	1.5	2.0	1.75	1.5	1.5	1.875	2.625	2.5	2.75	1.875	3.0	1.875	3.0	3.5
	3.0	2.0	2.25	2.25	1.75	2.5	1.5	2.25	1.625	1.625	1.875	2.375	2.5	2.875	3.0	1.875	2.625	2.0
	3.0	2.5	2.0	3.0	2.0	2.5	1.75	1.75	1.625	1.625	2.125	2.5	2.125	2.375	2.875	2.0	3.0	2.25
	3.25	3.0	2.0	2.0	2.0	2.25	1.75	1.25	2.0	1.75	2.0	2.5	2.5	2.375	1.625	2.5	2.375	2.0
	1.75	2.0	2.5	1.75	1.75	3.0	1.875	1.875	2.0	2.0	2.875	2.0	2.625	2.875	2.25	1.75	1.875	2.5
	3.0	2.25	2.0	2.0	2.5	3.0	1.5	1.5	1.875	1.75	2.0	2.25	2.5	2.0	2.5	2.0	2.0	2.375
	2.0	2.25	1.75	2.5	2.0	3.0	1.5	1.5	2.0	1.625	2.0	2.625	2.5	2.5	2.25	1.875	1.875	2.25
	2.25	2.0	2.0	2.75	2.25	3.25	1.75	1.75	1.875	1.5	2.0	1.375	2.5	2.75	3.25	2.875	1.266	2.375
	1.75	2.5	2.25	3.0	1.75	3.0	1.625	1.625	1.75	1.75	2.375	2.0	2.375	2.75	2.875	2.125	2.875	2.5
	1.75	2.75	2.5	2.5	1.75	1.75	1.5	1.625	1.5	1.875	3.5	2.625	2.375	2.125	2.625	1.875	1.5	2.5
	3.0	2.5	2.625	2.75	2.0	1.75	1.875	2.0	1.875	1.625	2.0	2.0	2.375	2.375	1.875	1.875	2.375	1.875
	2.5	2.0	1.5	2.25	2.0	3.25	1.75	1.625	1.875	1.875	2.375	1.875	2.5	2.25	2.75	1.875	2.0	2.25
	3.5	1.75	3.0	2.75	2.5	2.5	2.0	1.625	1.75	1.5	1.75	2.25	2.75	2.0	2.875	1.875	3.0	2.0
	2.75	2.75	3.0	3.0	2.25	2.5	1.375	1.375	1.5	1.875	2.5	1.875	1.75	2.5	2.25	1.875	2.0	2.75
Averages	2.7708	2.3583	2.1958	2.3375	2.0666	2.3000	1.756	1.645	1.695	1.737	2.241	1.262	2.479	2.375	2.441	2.116	2.354	2.416

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:												
Maximum measurements	B¹.	4.0	1.5748	B¹.	2.375	0.9350	B¹.	3.5	1.3779	B¹.	3.75	1.4763
	B².	3.50	1.3779	B².	2.375	0.9350	B².	3.0	1.3779	B².	2.875	1.1318
	B³.	3.0	1.1811	B³.	2.375	0.9350	B³.	3.0	1.3779	B³.	3.625	1.4271
	B⁴.	3.50	1.3779	B⁴.	2.125	0.8366	B⁴.	3.0	1.3779	B⁴.	3.5	1.3779
	B⁵.	2.50	0.9842	.....	.....	.....	.....	.....	.....	.....	.....	.....
	B⁶.	3.25	1.2705	.....	.....	.....	.....	.....	.....	.....	.....	.....
Highest		4.0	1.5748	.....	2.375	0.9350	.....	3.5	1.3779	.....	3.75	1.4763
Minimum measurements	B¹.	1.50	0.5933	B¹.	1.375	0.5413	B¹.	1.75	0.6889	B¹.	1.625	0.6397
	B².	1.25	0.4921	B².	1.25	0.4921	B².	1.375	0.5413	B².	1.625	0.6397
	B³.	1.50	0.5905	B³.	1.375	0.5413	B³.	1.75	0.6889	B³.	1.5	0.5905
	B⁴.	1.375	0.5413	B⁴.	1.5	0.5905	B⁴.	1.875	0.7380	B⁴.	1.875	0.7380
	B⁵.	1.50	0.5905	.....	.....	.....	.....	.....	.....	.....	.....	.....
	B⁶.	1.75	0.6889	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lowest		1.25	0.4921	.....	1.25	0.4921	.....	1.375	0.5413	.....	1.5	0.5905
Average measurements	B¹.	2.770	1.0905	B¹.	1.756	0.6913	B¹.	2.241	0.8822	B¹.	2.441	0.9610
	B².	6.358	0.9284	B².	1.645	0.6476	B².	1.262	0.4968	B².	2.116	0.8330
	B³.	2.195	0.8641	B³.	1.695	0.6673	B³.	2.479	0.9759	B³.	2.354	0.9267
	B⁴.	2.337	0.9200	B⁴.	1.737	0.6838	B⁴.	2.375	0.9350	B⁴.	2.416	0.9511
	B⁵.	2.066	0.8133	.....	.....	.....	.....	.....	.....	.....	.....	.....
	B⁶.	2.300	0.9055	.....	.....	.....	.....	.....	.....	.....	.....	.....
Average		2.336	0.9196	.....	1.708	0.6724	.....	2.089	0.8224	.....	2.331	0.9177
Measurements above average		79		.....	58		.....	89		.....	58	
Measurements below average		101		.....	62		.....	81		.....	62	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	ONE-HALF MERINO, AND ONE-HALF COTSWOLD.				SEVEN-EIGHTHS LEICESTER, AND ONE-EIGHTH MERINO.						SEVEN-EIGHTHS SPANISH, AND ONE-EIGHTH AUSTRALIAN.					COTSWOLD.			
Catalogue number of samples..	14.				126.						128.					190.			
Length of fiber in crimp	3½ inches.				4⅝.						3⅜ inches.					8½ inches.			
Number of crimps per inch	20.				——						——					——			
Number of section.....	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	1.875	2.125	2.125	1.875	4.0	2.0	2.25	3.0	3.0	3.0	2.0	1.25	2.0	2.5	2.0	3.375	4.25	4.0	4.125
	1.875	1.875	1.5	2.25	2.0	2.5	2.5	2.0	3.5	4.0	2.5	1.5	2.0	2.5	2.0	4.75	5.375	3.25	4.75
	2.125	1.625	1.75	1.875	2.5	2.75	2.75	3.5	4.0	3.5	1.875	1.75	2.25	2.5	2.0	3.75	3.5	4.125	4.125
	1.875	1.875	1.5	1.625	3.0	3.0	3.0	3.5	3.0	4.0	1.875	2.0	2.0	2.5	1.875	3.375	4.5	4.375	4.875
	1.5	1.75	1.75	1.5	2.0	2.0	2.5	2.25	2.5	2.5	2.0	2.0	1.75	2.5	2.5	4.25	4.75	4.375	4.0
	1.75	1.75	1.875	1.5	2.25	2.25	2.5	2.75	2.75	3.5	2.5	2.0	2.5	2.5	1.875	3.75	3.25	4.0	4.25
	2.25	1.75	2.0	1.75	1.75	2.25	2.0	2.0	2.25	3.0	2.5	2.0	2.0	2.0	1.75	3.75	3.875	4.5	3.75
	1.5	1.875	2.0	2.125	2.75	2.5	2.25	2.0	2.375	2.75	2.375	1.5	2.25	2.25	2.0	3.375	4.0	4.5	4.0
	1.5	1.875	1.75	2.25	2.5	2.25	2.25	2.5	5.0	2.25	2.0	1.75	2.25	2.25	2.5	3.75	4.75	4.0	2.5
	2.0	1.5	1.75	1.875	2.25	3.0	2.0	3.5	4.0	2.0	2.25	2.0	2.5	2.5	2.25	3.625	5.5	5.0	4.0
	1.875	1.5	1.75	1.875	2.5	3.25	3.0	3.0	3.0	3.0	2.25	1.75	2.5	2.25	1.875	4.0	4.875	4.125	4.5
	2.0	1.5	1.875	1.875	2.0	2.5	2.5	3.5	2.75	2.75	3.0	1.875	2.75	2.5	1.5	4.3	4.75	5.125	4.5
	1.75	1.625	1.5	1.875	2.375	2.75	2.75	2.5	2.5	3.25	2.0	1.5	2.75	2.375	2.0	4.875	5.0	3.625	4.625
	1.75	1.625	1.75	1.875	2.0	2.25	3.5	2.75	3.5	3.5	2.125	1.75	2.5	2.375	2.0	3.5	3.875	1.125	4.5
	2.25	1.375	2.0	2.0	1.75	3.0	4.0	3.0	3.0	2.25	2.125	1.625	2.25	2.5	2.0	3.375	3.875	4.0	4.0
	2.0	1.75	1.875	2.125	2.5	1.5	2.0	3.5	4.0	2.5	2.25	1.5	2.0	2.75	2.0	3.125	4.5	4.375	4.25
	1.75	1.875	1.875	1.875	2.0	1.75	4.5	2.5	2.75	2.5	1.25	1.5	3.0	2.0	2.0	4.0	5.25	4.875	5.0
	2.125	1.875	2.0	1.875	2.5	1.875	4.75	2.25	2.75	2.25	1.0	1.25	3.0	2.25	1.875	2.625	3.75	4.5	3.0
	1.875	2.375	1.75	2.0	2.0	1.5	5.0	2.375	3.25	2.25	1.25	2.0	2.5	2.25	1.75	3.375	3.25	4.25	4.75
	2.0	1.875	1.625	1.875	2.25	2.5	1.75	2.375	2.5	3.0	1.5	1.75	2.25	2.0	1.5	3.5	4.375	3.25	4.75
	2.0	2.25	1.875	1.75	1.75	3.0	1.75	2.0	2.0	2.75	1.5	1.75	2.0	2.25	1.5	4.875	4.5	4.5	4.25
	1.5	1.75	1.5	2.0	2.0	3.0	2.0	1.75	2.0	3.5	2.0	2.0	2.5	2.0	1.5	3.375	4.5	3.5	3.75
	2.5	1.625	1.5	1.625	2.5	2.25	4.5	2.0	3.5	3.5	2.0	2.0	2.25	3.25	1.5	4.0	4.875	4.25	4.0
	1.875	1.625	1.75	2.0	2.25	1.5	2.5	2.25	2.5	3.5	2.0	2.25	2.25	2.5	2.0	3.125	4.75	3.625	2.5
	2.0	1.5	1.625	1.5	3.0	2.0	4.0	2.5	3.25	3.0	2.25	1.75	2.25	2.0	2.0	3.625	4.5	3.5	3.75
	2.125	1.75	1.375	1.875	2.75	2.75	2.25	3.0	3.5	2.5	2.25	2.5	2.5	2.5	2.25	3.375	2.75	3.5	3.625
	1.75	1.875	1.875	2.0	3.0	2.0	3.5	3.25	2.5	2.25	2.375	2.375	2.25	2.25	2.375	3.625	1.875	4.5	4.125
	1.75	1.625	1.875	1.5	2.0	1.5	3.0	3.5	3.5	2.25	2.25	2.25	2.25	2.0	2.5	3.5	4.0	3.875	3.5
	1.875	1.5	1.75	2.0	2.25	1.5	4.0	1.75	3.0	2.25	2.0	1.5	2.5	2.25	2.25	2.75	3.375	4.0	4.0
	1.875	1.625	1.375	1.625	2.75	2.0	2.0	2.75	2.75	2.5	2.0	1.25	2.75	2.25	2.00	4.375	4.0	3.75	3.0
Averages	1.895	1.750	1.750	1.858	2.3708	2.2958	2.7416	2.6500	2.8625	2.8583	2.0416	1.7958	2.3500	2.3500	1.9708	3.701	4.212	4.112	4.025

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:												
Maximum measurements.	B¹	2.5	0.9842	B¹	4.0	1.5748	B¹	3.0	1.1811	B¹	4.875	1.9702
	B²	2.375	0.9350	B²	3.25	1.2795	B²	2.375	0.9350	B²	5.5	2.1653
	B³	2.125	0.8366	B³	5.0	1.9685	B³	3.0	1.1811	B³	5.125	2.0177
	B⁴	2.25	0.8858	B⁴	3.50	1.3779	B⁴	3.25	1.2795	B⁴	5.0	1.9685
	.....	.....	.....	B⁵	5.0	1.9685	B⁵	2.50	0.9842	.....	.....	.....
	.....	.....	.....	B⁶	4.0	1.5748	.....	.....	.....	.....	.....	.....
Highest.....	.....	2.5	0.9842	.....	5.0	1.9685	.....	3.25	1.2795	.....	5.5	2.1653
Minimum measurements.	B¹	1.5	0.5905	B¹	1.75	0.6889	B¹	1.0	1.3937	B¹	3.125	1.2303
	B²	1.375	0.5413	B²	1.50	0.5905	B²	1.25	0.4921	B²	3.25	1.2795
	B³	1.375	0.5413	B³	1.75	0.6889	B³	1.75	0.6889	B³	3.25	1.2795
	B⁴	1.5	0.5905	B⁴	1.75	0.6889	B⁴	2.0	0.7874	B⁴	2.5	0.9842
	.....	.....	.....	B⁵	2.0	0.7874	B⁵	1.50	0.5905	.....	.....	.....
	.....	.....	.....	B⁶	2.0	0.7874	.....	.....	.....	.....	.....	.....
Lowest	.....	1.375	0.5413	.....	1.50	0.5905	.....	1.0	0.3937	.....	2.5	0.9842
Average measurements..	B¹	1.895	0.7460	B¹	2.370	0.9330	B¹	2.041	0.8035	B¹	3.701	1.4570
	B²	1.750	0.6889	B²	2.295	0.9035	B²	1.795	0.7066	B²	4.212	1.6582
	B³	1.750	0.6889	B³	2.741	1.0791	B³	2.350	0.9251	B³	4.112	1.6188
	B⁴	1.858	0.7314	B⁴	2.650	1.0433	B⁴	2.350	0.9251	B⁴	3.666	1.4433
	.....	.....	.....	B⁵	2.862	1.1267	B⁵	1.970	0.7755	.....	.....	.....
	.....	.....	.....	B⁶	2.858	1.1251	.....	.....	.....	.....	.....	.....
Average	.....	1.813	0.7137	.....	2.629	1.0346	.....	2.101	0.8271	.....	3.922	1.5440
Measurements above average..	.....	54		.....	83		.....	72		.....	71	
Measurements below average..	.....	56		.....	97		.....	78		.....	49	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	LINCOLN.																	
Catalogue number of samples..	201.				235.				227.			228.			229.			
Length of fiber in crimp.....	5 inches.				6 inches.				——			——			——			
Number of crimps per inch....	——				——				——			——			——			
Number of section.....	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	
Actual measurement in centimillimeters.	3.375	5.25	2.75	3.0	2.5	3.0	3.75	1.875	5.0	4.75	3.5	4.5	3.25	2.75	4.0	3.5	3.125	
	5.0	3.875	5.375	3.0	2.875	2.5	3.0	3.125	3.5	3.25	4.5	4.5	2.0	2.875	1.75	3.0	3.375	
	3.75	3.875	4.375	4.0	3.75	3.0	3.5	2.0	6.0	3.375	2.5	3.5	4.0	3.0	3.375	3.5	3.5	
	3.5	5.0	2.875	4.625	2.875	3.375	3.125	2.375	4.875	3.75	2.375	2.125	3.0	2.25	4.5	3.5	3.75	
	2.5	4.5	3.75	4.125	3.0	3.0	3.375	2.75	5.75	4.5	2.875	4.125	2.625	3.0	3.25	4.0	4.0	
	3.25	4.875	5.0	4.25	2.75	3.5	3.0	1.75	3.0	4.0	3.75	2.125	3.25	1.625	4.25	4.0	3.75	
	5.0	4.375	2.75	3.875	2.375	3.5	3.75	2.75	3.5	5.75	2.0	3.25	1.75	2.875	3.625	3.25	3.0	
	4.75	5.0	3.25	4.0	2.75	2.625	3.5	3.0	5.375	3.5	1.625	3.75	2.875	3.25	4.0	3.375	4.0	
	4.5	6.0	3.75	2.375	3.0	3.25	3.875	2.5	4.375	4.375	2.75	3.25	3.5	2.5	2.375	3.375	3.75	
	4.625	3.375	4.375	3.0	2.25	2.75	3.0	2.375	4.5	6.0	3.875	3.5	4.0	2.375	3.875	2.25	3.5	
	3.25	3.75	2.875	4.0	2.125	3.375	3.75	3.0	5.5	5.0	1.625	4.5	3.25	2.5	3.75	3.625	4.0	
	3.875	3.0	2.0	2.0	2.5	2.125	3.375	2.5	5.875	4.75	2.375	3.875	2.75	2.5	3.375	3.0	4.5	
	3.5	4.75	3.5	4.875	2.5	3.0	3.375	2.0	4.375	5.375	1.625	2.875	2.875	2.5	3.25	2.375	4.125	
	2.25	4.5	2.25	3.5	2.5	3.0	3.125	2.875	6.25	4.75	2.875	3.625	3.375	3.5	3.875	2.75	4.25	
	3.625	4.0	4.25	3.375	2.25	2.5	4.0	1.875	3.875	4.25	3.0	3.375	2.875	2.875	3.5	3.5	3.0	
	2.875	4.0	3.375	3.875	2.25	2.875	3.75	3.0	3.875	5.0	2.25	3.875	3.5	2.0	4.25	3.0	3.875	
	4.0	5.375	3.5	5.0	3.0	3.0	3.0	2.25	4.875	5.125	2.75	2.5	4.375	1.75	3.0	4.0	4.25	
	3.5	3.0	3.0	2.5	2.25	3.5	3.625	2.5	5.375	4.5	4.5	2.75	2.75	3.375	3.5	3.375	3.75	
	3.5	6.875	3.875	2.5	3.0	3.125	3.75	2.375	5.5	5.5	2.875	3.875	2.75	3.5	4.0	3.5	3.75	
	3.125	3.0	2.375	3.25	2.875	2.75	3.25	1.75	3.125	5.5	3.0	3.5	3.25	2.25	3.375	4.0	4.0	
	3.25	2.875	2.0	3.5	2.5	3.0	3.625	2.375	3.25	3.5	2.5	3.0	3.25	3.0	4.5	2.5	4.0	
	2.125	2.25	4.0	2.0	2.75	2.0	3.875	3.25	5.25	4.875	2.375	2.75	4.0	3.0	4.125	3.375	3.375	
	3.5	4.375	4.25	5.375	2.375	3.375	2.375	2.875	4.375	3.6	1.375	4.375	2.5	3.125	3.5	2.125	4.25	
	3.625	4.25	4.375	5.0	3.0	3.0	2.25	2.25	3.25	4.375	3.25	2.5	3.0	2.875	2.0	3.125	3.75	
	4.5	6.375	3.375	3.75	2.75	3.5	3.75	2.125	5.375	5.375	3.375	2.5	2.875	2.75	4.0	3.0	3.5	
	2.875	4.0	4.75	1.25	3.0	3.0	2.875	3.0	4.375	3.375	3.75	3.875	2.125	1.75	2.5	3.5	3.25	
	2.875	4.125	2.625	2.5	2.375	3.25	3.25	2.5	5.75	4.5	5.0	2.875	2.0	2.5	3.75	3.625	3.875	
	2.875	5.875	2.5	3.0	2.375	3.0	3.25	3.375	5.0	3.375	5.375	3.25	2.875	2.0	3.5	3.625	3.25	
	2.875	5.375	5.25	4.75	2.5	3.375	2.75	2.75	5.0	4.125	3.75	3.0	2.25	1.75	3.5	3.25	3.75	
	3.0	3.375	5.75	2.0	2.625	2.5	2.75	2.0	5.5	1.5	2.25	3.0	2.375	2.5	3.5	3.5	4.5	
Averages.....	3.508	4.375	3.644	3.475	2.520	2.936	3.332	2.207	4.728	4.050	2.991	3.383	2.941	2.666	3.521	3.283	3.791	

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	5.0	1.9685	B¹	3.75	1.4763	B¹	6.25	2.4606	B¹	4.5	1.7716	B¹	4.5	1.7716
	B²	5.875	2.5098	B²	3.5	1.3779	B²	5.5	2.1653	B²	4.0	0.5748	B²	4.0	1.5748
	B³	5.75	2.2657	B³	4.0	1.5748	B³	4.5	1.7716	B³	3.5	1.3779	B³	4.75	1.8700
	B⁴	5.375	2.1161	B⁴	3.375	1.3287	.....	.....	.....	.....	.....	.....	.....	.....	.....
Highest.....	.....	6.375	2.5098	.....	4.0	1.5748	.....	6.25	2.4606	.....	4.5	1.7716	.....	4.75	1.8700
Minimum measurements.	B¹	2.125	0.8366	B¹	2.0	0.7874	B¹	3.0	1.1811	B¹	2.125	0.8366	B¹	1.75	0.6889
	B²	2.25	0.8858	B²	2.125	0.8366	B²	1.5	0.5905	B²	1.75	0.6889	B²	2.125	0.8366
	B³	2.0	0.7874	B³	2.375	0.9350	B³	1.375	0.5413	B³	1.625	0.6397	B³	3.0	1.1811
	B⁴	1.25	0.4921	B⁴	1.75	0.6889	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lowest.....	.....	1.25	0.4921	.....	1.75	0.6889	.....	1.375	0.5413	.....	1.625	0.6397	.....	1.75	0.6889
Average measurements..	B¹	3.508	1.3810	B¹	2.520	0.9921	B¹	4.720	1.8583	B¹	3.383	1.3318	B¹	3.521	1.3862
	B²	4.375	1.7224	B²	2.936	1.1803	B²	4.350	1.7125	B²	2.941	1.1578	B²	3.283	1.2925
	B³	3.644	1.4350	B³	3.332	1.3118	B³	2.994	1.1787	B³	2.666	1.0496	B³	3.791	1.4925
	B⁴	3.475	1.3681	B⁴	2.207	1.1051	.....	.....	.....	.....	.....	.....	.....	.....	.....
Average.....	.....	3.765	1.4822	.....	2.914	1.1472	.....	4.021	1.5830	.....	2.996	1.1795	.....	3.531	1.3901
Measurements above average..	.....	55		.....	55		.....	47		.....	41		.....	41	
Measurements below average..	.....	85		.....	85		.....	43		.....	49		.....	49	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	LINCOLN.										OXFORD.			MERINO.				
Catalogue number of samples..	230.			231.			232.				200.			213.		214.		
Length of fiber in crimp	4¾ inches.			5 inches.			9½ inches.				2 inches.			2⅝ inches.		3⅜ inches.		
Number of crimps per inch	——			——			——				——			25.		22.		
Number of section.....	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B¹.	B².	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.0	1.875	1.75	4.375	3.75	2.375	4.5	4.125	5.375	4.25	3.5	4.0	3.125	2.25	1.5	1.75	2.375	2.875
	3.875	1.75	2.0	3.5	4.25	3.375	3.75	5.0	4.75	3.0	3.25	3.5	3.75	2.0	2.25	2.375	2.25	3.0
	2.375	2.375	1.25	3.5	3.75	3.875	4.5	4.875	4.25	3.625	3.875	5.0	3.75	2.375	1.75	2.0	2.5	2.5
	3.0	4.75	2.5	3.25	3.25	2.75	3.25	4.0	3.875	3.5	4.0	4.5	3.125	1.875	1.875	2.25	2.125	2.0
	3.75	2.25	2.375	4.0	3.375	2.875	3.25	3.875	2.375	2.0	3.375	3.625	2.375	2.0	1.875	2.0	1.75	2.0
	3.75	3.625	2.125	1.875	3.75	3.125	3.375	3.0	4.5	3.25	3.75	3.375	3.375	1.875	1.625	2.0	1.875	2.125
	1.75	3.0	3.5	3.5	3.5	3.875	5.25	3.5	3.5	2.75	3.5	4.5	2.875	2.5	1.875	2.0	2.5	1.875
	2.875	3.5	4.25	2.875	2.875	2.75	3.375	3.25	3.25	3.25	3.375	3.75	2.375	2.0	2.25	2.375	2.75	2.5
	2.5	2.0	3.125	3.375	3.5	3.875	3.0	3.875	2.875	2.875	3.875	2.5	1.875	1.5	1.75	1.875	1.75	2.5
	4.0	3.5	3.5	3.75	3.875	4.25	4.0	3.375	3.125	2.75	4.0	3.5	2.5	2.25	1.75	2.75	3.0	2.25
	3.5	1.75	2.5	3.5	4.25	2.5	3.75	3.25	4.0	2.25	2.375	3.0	3.875	2.0	1.75	1.75	2.5	2.5
	2.875	3.0	1.875	3.5	3.875	2.5	3.5	3.125	2.625	5.0	3.75	4.25	4.0	2.125	1.875	1.875	2.0	2.625
	3.125	3.0	2.375	4.375	3.25	2.75	5.875	3.375	4.0	3.0	3.5	3.625	2.375	2.0	1.375	1.75	2.5	2.5
	3.25	3.75	1.875	4.0	2.25	2.5	3.375	2.5	5.0	3.375	4.0	3.375	4.125	2.375	2.375	2.375	2.875	2.0
	2.5	4.375	3.0	3.75	3.75	2.5	4.625	2.75	5.625	2.75	3.75	3.875	3.75	1.875	2.25	2.5	2.5	2.5
	4.375	4.875	2.375	3.75	4.375	3.0	5.0	2.375	5.375	3.75	3.375	3.5	3.375	2.125	1.5	2.375	2.0	2.25
	4.5	2.875	2.625	3.625	3.75	4.25	4.25	5.25	3.5	4.0	3.625	3.0	3.375	2.0	2.25	3.0	2.375	2.125
	2.5	3.25	2.5	1.5	4.375	2.75	3.625	4.0	2.5	3.0	3.75	3.75	3.375	2.0	1.375	1.625	1.75	2.375
	4.5	4.0	3.0	3.375	3.125	3.875	3.875	3.875	4.0	3.0	3.25	3.375	4.0	2.125	2.25	2.5	2.0	1.75
	3.5	3.75	2.375	2.875	3.5	2.875	5.375	2.5	2.25	3.875	3.25	4.5	2.875	2.375	1.625	2.875	3.0	2.0
	4.0	3.875	2.0	4.0	4.0	2.75	2.875	2.75	4.5	5.0	3.75	4.5	3.875	1.875	1.875	2.375	1.875	2.25
	4.75	2.25	2.5	2.0	3.0	2.5	4.25	3.375	4.875	3.25	3.5	3.375	2.5	2.0	1.75	2.25	3.0	1.5
	2.375	3.875	3.875	2.875	1.75	3.0	4.5	4.0	1.875	2.875	3.875	3.375	3.25	1.5	1.375	1.625	1.75	1.5
	2.5	2.375	2.0	2.5	3.75	4.375	2.5	3.75	4.0	3.25	3.875	3.75	4.75	1.75	1.875	2.0	2.0	3.5
	2.875	1.5	4.0	3.875	3.0	3.75	4.25	3.5	4.5	2.5	4.875	3.25	3.0	1.625	2.0	2.25	2.5	2.75
	3.0	3.375	3.0	3.625	4.5	2 25	4.0	4.5	3.75	4.875	3.25	3.625	2.625	2.0	1.375	2.125	2.5	2.125
	3.125	4.625	2.75	4.0	4.0	3.0	4.0	4.25	4.375	3.25	3.75	3.125	4.375	2.125	1.375	1.75	2.5	2.0
	2.25	2.875	2.125	3.0	3.625	4.0	4.0	3.0	3.875	2.5	3.25	4.0	4.25	1.625	1.75	2.25	2.125	2.5
	3.75	3.5	3.5	4.25	4.125	3.75	3.875	2.75	5.0	3.5	4.375	3.5	3.375	1.875	1.75	1.75	2.0	2.0
	4.25	3.25	4.25	3.0	3.875	3.125	3.75	4.0	2.75	2.5	3.375	4.0	4.125	1.5	1.875	2.0	1.875	2.375
Averages	3.250	3.208	2.696	3.391	3.600	3.204	3.983	3.591	3.875	3.291	3.666	3.700	3.312	2.046	1.837	2.192	2.283	2.208

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements	B¹	4.75	1.8700	B¹	4.375	1.7224	B¹	5.25	2.0669	B¹	4.875	1.9192	B¹	2.5	0.9842	B¹	3.0	1.1811
	B²	4.875	1.0192	B²	4.5	1.7716	B²	5.25	2.0669	B²	4.5	1.7716	B²	2.375	0.9350	B²	3.0	1.1811
	B³	4.25	1.6732	B³	4.375	1.7224	B³	5.625	2.2145	B³	4.75	1.8700	....	.....	.....	B³	3.5	1.3779
	.....	.....	.....	.....	.....	.....	B⁴	5.0	1.9685	.....	.....	.....	....	.....	.....	.....	.....	.....
Highest.....	.....	4.875	1.9192	.....	4.5	1.7716	.....	5.625	2.2145	.....	4.875	1.9192	...	2.5	0.9842	.....	3.5	1.3779
Minimum measurements.	B¹	2.0	0.7874	B¹	1.5	0.5905	B¹	2.5	0.9842	B¹	3.25	1.2795	B¹	1.5	0.5905	B¹	1.625	0.6397
	B²	1.5	0.5905	B²	1.75	0.6889	B²	2.375	0.9350	B²	3.0	1.1811	B²	1.375	0.5413	B²	1.75	0.6889
	B³	1.75	0.6889	B³	2.25	0.8858	B³	1.875	0.7381	B³	1.875	0.7381	....	.....	.....	B³	1.5	0.5905
	.....	.....	.....	.....	.....	.....	B⁴	2.0	0.7874	.....	.....	.....	....	.....	.....	.....	.....	.....
Lowest	.....	1.5	0.5905	.....	1.5	0.5905	.....	1.875	0.7381	.....	1.875	0.7381	....	1.375	0.5413	.....	1.5	0.5905
Average measurements..	B¹	3.250	1.2795	B¹	3.391	1.3350	B¹	3.983	1.5681	B¹	3.666	1.4433	B¹	2.046	0.8055	B¹	2.192	0.8629
	B²	3.298	1.2984	B²	3.600	1.4173	B²	3.591	1.4137	B²	3.700	1.4566	B²	1.837	0.7232	B²	2.283	0.8988
	B³	2.696	1.0614	B³	3.204	1.2614	B³	3.875	1.5255	B³	3.312	1.3039	....	.....	.....	B³	2.208	0.8692
	.....	.....	.....	.....	.....	.....	B⁴	3.291	1.2956	.....	.....	.....	....	.....	.....	.....	.....	.....
Average	.....	3.081	1.2129	.....	3.398	1.3377	.....	3.685	1.4507	.....	3.559	1.3981	....	1.941	0.7641	.....	2.227	0.8767
Measurements above average..	.....	40		.....	49		.....	60		.....	44		....	26		.....	47	
Measurements below average..	.....	50		.....	41		.....	60		.....	46		....	34		.....	41	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

MERINO.

Catalogue number of samples	215.			216.			217.		218.			219.			220.		
Length of fiber in crimp	2½ inches.			3⅛ inches.			1½ inches.		4 inches.			2½ inches.			3½ inches.		
Number of crimps per inch	18.			16.			16.		16.			16.			14		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.125	1.5	1.5	2.375	1.625	2.0	2.25	1.375	2.0	2.375	1.625	2.0	1.875	1.375	2.0	1.375	1.75
	1.5	1.25	1.5	2.125	1.5	1.25	2.0	1.5	2.0	1.75	1.75	1.75	2.375	1.625	2.125	1.75	1.75
	1.875	1.375	1.75	1.875	1.625	1.75	1.25	1.5	1.75	2.25	1.75	1.75	1.875	1.75	2.125	2.0	1.75
	1.5	2.0	1.75	1.875	2.0	1.75	1.25	1.125	2.0	1.5	1.5	1.75	1.875	1.875	2.0	1.75	2.25
	1.75	1.5	1.875	2.0	1.625	2.875	1.875	2.125	2.25	2.125	2.0	2.125	1.5	1.75	2.375	2.25	2.0
	2.25	1.375	1.875	2.0	1.875	2.0	1.75	1.75	2.125	2.25	1.375	1.5	1.75	1.875	2.0	1.875	1.875
	1.625	1.375	2.0	1.875	1.875	1.375	1.875	1.375	2.0	2.0	1.75	1.625	2.0	2.75	2.0	2.375	2.0
	1.75	1.375	1.75	1.75	1.375	1.875	1.875	1.375	2.5	1.375	1.875	2.375	2.375	1.875	2.125	1.625	2.0
	2.125	2.125	2.0	2.125	1.875	2.0	1.875	2.375	1.625	2.0	1.5	2.75	2.0	1.625	1.75	1.5	1.875
	1.5	1.375	2.375	2.375	2.0	2.375	1.375	2.25	2.0	2.125	1.5	1.625	1.75	2.625	1.75	2.0	1.75
	2.0	1.5	1.875	2.375	1.5	2.625	1.5	1.875	2.0	1.75	2.0	1.75	1.875	2.5	2.375	1.875	1.875
	2.0	1.5	1.875	1.875	1.625	2.0	2.0	1.5	1.75	1.875	2.0	2.25	1.75	1.375	1.875	2.0	2.125
	1.875	1.25	2.0	1.5	2.25	1.75	1.875	1.375	1.75	1.75	1.5	1.875	2.125	2.0	2.125	1.625	1.625
	2.125	1.375	2.375	2.0	1.5	1.625	2.875	1.375	2.25	1.75	1.875	1.875	1.5	1.875	1.625	2.0	2.0
	2.0	1.375	2.0	2.0	2.0	1.875	2.0	2.0	2.375	1.625	2.0	1.875	1.625	2.5	2.0	1.625	2.0
	1.5	2.0	2.5	2.375	2.0	2.0	2.25	1.875	1.75	1.75	1.5	1.625	1.375	2.0	2.0	1.5	1.75
	1.875	1.25	1.75	1.75	2.0	1.625	2.25	1.5	1.75	1.875	1.75	1.875	2.5	1.625	2.0	1.5	1.875
	2.0	1.375	1.75	2.375	2.0	2.375	2.75	2.0	2.125	1.75	2.375	2.0	1.625	2.25	2.75	2.0	1.875
	2.125	1.5	1.875	1.375	1.875	1.75	2.0	1.25	1.625	1.875	1.625	2.25	1.5	1.875	2.0	2.0	1.5
	2.0	1.875	2.375	2.0	2.5	1.75	1.875	1.75	2.25	1.5	1.625	2.25	1.875	1.75	2.0	1.5	2.0
	1.75	1.25	1.375	2.5	2.0	1.375	2.25	2.0	2.0	2.25	1.375	2.75	2.0	2.5	2.5	2.0	1.875
	1.5	1.5	1.5	1.875	1.875	1.75	2.375	2.0	2.0	1.875	2.0	1.625	1.125	2.25	1.625	2.0	1.875
	2.0	1.5	1.75	2.0	2.375	2.0	1.625	1.875	1.875	1.625	2.25	2.0	2.125	2.5	1.75	2.125	1.875
	1.875	1.5	2.25	1.5	1.875	1.375	1.25	1.5	2.0	2.0	1.875	1.5	1.375	1.875	2.75	2.0	2.0
	1.75	1.25	1.875	2.375	1.875	2.25	1.75	1.75	1.625	1.875	2.0	2.75	1.5	1.75	1.5	2.0	1.75
	1.75	1.125	1.625	1.5	1.875	2.125	1.75	1.5	2.0	1.875	2.25	2.0	1.875	2.0	2.5	1.5	1.75
	1.5	1.375	2.0	2.625	1.875	2.0	1.875	1.5	1.875	1.875	2.0	2.25	1.875	1.75	2.75	1.625	1.875
	2.5	1.75	1.875	1.875	2.5	1.5	2.125	1.875	2.125	1.25	1.625	1.75	2.0	1.625	1.75	2.25	2.0
	1.625	1.375	1.875	1.625	1.75	2.375	1.375	1.625	2.875	2.75	1.75	1.875	1.75	2.0	2.5	2.0	1.875
	1.75	1.5	1.5	2.5	1.75	1.25	1.75	2.0	2.5	1.5	2.0	1.5	2.75	1.625	1.5	1.875	1.75
Averages	1.850	1.495	1.795	2.012	1.875	1.887	1.879	1.626	2.018	1.870	1.800	1.902	1.883	1.960	2.070	1.850	1.875

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reductions:																		
Maximum measurements.	B¹	2.5	0.9842	B¹	2.625	1.0334	B¹	2.375	0.9350	B¹	2.875	1.1318	B¹	2.75	1.0826	B¹	2.75	1.0826
	B²	2.125	0.8366	B²	2.375	0.9350	B²	2.375	0.9350	B²	2.75	1.0826	B²	2.5	0.9842	B²	2.375	0.9350
	B³	2.5	0.9842	B³	2.875	1.1318	.....	.....	.....	B³	2.375	1.3347	B³	2.75	1.0826	B³	2.25	0.8858
Highest	.....	2.5	0.9842	.....	2.875	1.1318	.....	2.375	0.9350	.....	2.875	1.1318	.....	2.75	1.0826	.....	2.75	1.0826
Minimum measurements.	B³	1.5	0.5905	B³	1.375	0.5413	B¹	1.25	0.4921	B¹	1.625	0.6397	B¹	1.5	0.5905	B¹	1.5	0.5905
	B²	1.125	0.4429	B²	1.5	0.5905	B²	1.125	0.4429	B²	1.25	0.4921	B²	1.125	0.4429	B²	1.375	0.5413
	B¹	1.375	0.5413	B¹	1.25	0.4921	.....	.....	.....	B²	1.375	0.5413	B²	1.375	0.5413	B³	1.5	0.5905
Lowest	.....	1.125	0.4429	.....	1.25	0.4921	.....	1.125	0.4429	.....	1.25	0.4921	.....	1.125	0.4429	.....	1.375	0.5413
Average measurements.	B¹	1.850	0.7283	B¹	2.012	0.7921	B¹	1.879	0.7397	B¹	1.918	0.7044	B¹	1.902	0.7724	B¹	2.070	0.8149
	B²	1.495	0.5885	B²	1.875	0.7380	B²	1.695	0.6673	B²	1.870	0.7362	B²	1.883	0.7216	B²	1.850	0.7283
	B³	1.795	0.7066	B³	1.887	0.7429	.....	.....	.....	B³	1.800	0.7086	B³	1.960	0.7716	B³	1.875	0.7380
Average	.....	1.713	0.6744	.....	1.934	0.7614	.....	1.787	0.7036	.....	1.896	0.7464	.....	1.918	0.7551	.....	1.931	0.7602
Measurements above average	.....	50		.....	42		.....	31		.....	41		.....	35		.....	46	
Measurements below average	.....	40		.....	48		.....	[illegible]		.....	49		.....	55		.....	44	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.															
Catalogue number of samples	221.			222.		223.			224.			225.		226.		
Length of fiber in crimp	2½ inches.			1¾ inches.		3⅛ inches.			3⅜ inches.			——		——		
Number of crimps per inch	16.			16.		20.			20.			——		——		
Number of section	B¹.	B².	B³.	B¹.	B².	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B¹.	B².	
Actual measurement in centimillimeters.	2.75	1.5	2.625	2.375	1.875	1.5	2.0	2.25	2.0	1.75	2.125	2.0	1.875	2.0	0.75	
	2.5	2.375	2.125	2.375	1.875	1.75	2.75	2.0	1.875	1.5	2.0	2.0	1.375	1.375	2.5	
	2.0	2.25	1.75	1.875	1.875	2.0	2.0	2.0	1.625	1.75	2.0	2.25	2.25	2.125	2.125	
	1.625	2.5	2.25	2.0	1.25	2.0	1.875	2.25	1.25	1.75	1.75	2.0	2.5	1.5	2.25	
	2.25	2.875	2.0	2.375	1.75	1.625	2.125	2.0	2.0	1.25	2.0	1.625	2.25	1.875	1.75	
	2.0	3.0	2.5	2.375	1.75	2.375	1.875	2.0	1.75	1.375	2.0	2.0	2.0	1.375	2.0	
	1.5	2.25	2.75	2.375	1.75	1.875	2.25	2.0	2.25	1.375	1.625	1.75	2.0	2.125	1.75	
	2.25	2.75	2.375	2.0	1.75	1.875	1.75	2.0	1.75	1.5	2.0	1.875	1.875	2.5	1.5	
	3.0	3.0	2.5	2.625	2.25	1.875	1.875	2.125	2.0	1.25	2.375	1.75	2.0	1.875	1.375	
	1.75	2.625	1.5	2.0	1.5	2.0	1.875	2.375	2.0	1.5	1.75	2.125	1.625	2.25	1.625	
	1.75	1.75	2.875	2.875	1.5	1.75	1.625	2.0	1.5	1.5	2.0	2.5	1.875	2.5	2.5	
	2.75	2.375	1.75	1.875	1.75	2.125	2.0	1.875	2.0	1.5	2.0	2.125	1.875	1.75	2.0	
	2.125	2.5	2.375	2.25	2.5	2.0	1.75	1.5	1.75	1.75	1.5	2.0	2.25	2.25	1.5	
	2.125	1.875	2.0	2.375	1.75	2.0	2.25	1.625	1.875	1.5	2.0	2.0	2.375	2.5	2.125	
	2.375	2.0	2.0	2.0	1.5	2.0	2.375	1.875	2.5	1.5	2.5	1.75	2.125	2.25	1.5	
	2.625	2.375	2.75	2.125	2.75	1.5	2.0	2.0	1.5	1.5	2.0	2.0	1.75	1.875	2.25	
	2.5	2.625	3.0	2.5	1.5	2.25	2.0	1.875	1.875	1.75	1.5	1.5	2.375	2.0	1.875	
	3.125	2.25	2.375	2.0	1.75	1.75	1.75	1.75	1.75	1.625	1.875	1.75	2.0	1.75	1.375	
	2.375	1.75	2.25	2.125	2.25	2.5	2.0	2.5	1.875	1.625	1.5	1.875	2.375	2.25	1.75	
	2.75	2.125	2.0	2.5	1.125	1.75	2.25	2.0	1.875	1.5	2.0	2.0	1.5	1.5	1.5	
	2.375	2.5	2.5	2.0	1.5	2.25	2.0	1.875	1.5	1.875	1.875	2.125	2.5	2.25	2.25	
	2.375	2.25	2.5	2.0	2.0	1.75	2.0	1.5	1.75	2.0	1.5	2.0	2.0	2.875	2.125	
	2.25	2.375	2.625	2.25	2.0	1.625	1.875	1.25	2.0	1.625	2.5	2.375	1.5	2.5	2.375	
	2.875	2.0	2.5	2.25	1.875	1.875	2.0	2.25	2.0	1.375	1.75	1.875	1.625	2.25	1.875	
	1.75	2.5	2.25	2.0	1.875	1.625	2.0	1.75	1.75	1.75	2.125	2.25	2.0	1.5	2.375	
	2.125	1.875	1.875	2.125	2.0	1.875	1.75	1.625	1.875	1.375	2.0	2.0	2.125	1.875	2.0	
	2.5	1.625	2.5	2.25	1.5	2.0	1.5	1.5	1.625	1.5	2.25	2.125	2.375	2.25	1.875	
	2.625	2.375	2.875	2.0	2.0	2.5	2.0	1.75	2.0	1.375	2.0	2.0	1.875	2.25	2.25	
	2.5	2.5	2.5	2.0	1.625	1.75	2.125	2.0	2.125	2.0	2.375	1.625	1.75	2.125	1.5	
	2.25	2.5	1.875	2.0	2.25	1.875	2.0	1.5	2.0	1.375	2.0	2.25	2.375	2.0	1.75	
Averages	2.328	2.308	2.321	2.189	1.804	1.920	1.987	1.900	1.854	1.566	1.962	1.916	2.012	2.050	1.879	

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	3.125	1.2303	B¹	2.875	1.1318	B¹	2.5	0.9842	B¹	2.5	0.9842	B¹	2.5	0.9842	B¹	2.875	1.1318
	B²	3.0	1.1811	B²	2.75	1.0826	B²	2.75	1.0826	B²	2.0	0.7874	B²	2.5	0.9842	B²	2.5	0.9842
	B³	3.0	1.1811	.....	.....	.....	B³	2.375	0.9350	B³	2.5	0.9842	.....	.....	.....	B³	.....	.....
Highest	.....	3.125	1.2303	.....	2.875	1.1318	.....	2.75	1.0826	.....	2.5	0.9842	.....	2.50	0.9842	.....	2.875	1.1318
Minimum measurements.	B¹	1.5	5.5905	B¹	1.875	0.7381	B¹	1.625	0.6397	B¹	1.25	0.4921	B¹	1.625	0.6397	B¹	1.375	0.5413
	B²	1.5	0.5905	B²	1.125	0.4429	B²	1.5	0.5905	B²	1.25	0.4921	B²	1.375	0.5413	B²	0.75	0.2952
	B³	1.5	0.5905	B³	.....	.....	B³	1.5	0.5905	B³	1.5	0.5905	.....	.....	.....	.....	.....	.....
Lowest	.....	1.5	0.5905	.....	1.125	0.4429	.....	1.5	0.5905	.....	1.25	0.4921	.....	1.375	0.5413	.....	0.75	0.2952
Average measurements.	B¹	2.328	0.9167	B¹	2.189	0.8618	B¹	1.920	0.7559	B¹	1.854	0.7299	B¹	1.916	0.7543	B¹	2.050	0.8070
	B²	2.308	0.9086	B²	1.804	0.7103	B²	1.987	0.7822	B²	1.566	0.6165	B²	2.012	0.7921	B²	1.879	0.7397
	B³	2.321	0.9137	B³	.....	.....	B³	1.900	0.7480	.....	.....	.....	.....	.....	.....	.....	.....	.....
Average	.....	2.319	0.9129	.....	1.996	0.7858	.....	1.935	0.7618	.....	1.710	0.6732	.....	1.964	0.7732	.....	1.964	0.7732
Measurements above average	.....	59		.....	57		.....	48		.....	58		.....	38		.....	33	
Measurements below average	.....	40		.....	23		.....	42		.....	32		.....	22		.....	27	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	MERINO.			SPANISH MERINO.												SILESIAN MERINO.	
Catalogue number of sample...	233.			204.			205.			206.			207.			208.	
Length of fiber in crimp.....	3¾ inches.			——			1¾ inches.			——			——			1¼ inches.	
Number of crimps per inch	10.			——			22.			——			——			——	
Number of section.....	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².
Actual measurement in centimillimeters.	1.25	1.875	2.0	1.75	2.0	2.0	1.875	1.5	2.0	5.0	4.5	2.875	4.0	5.75	4.75	1.875	1.875
	2.25	1.5	2.0	1.625	2.25	1.5	2.0	1.75	2.0	5.625	3.875	5.0	3.5	6.5	6.5	1.625	1.25
	2.125	2.125	1.875	1.5	2.0	1.625	2.0	2.0	2.5	5.625	5.5	5.375	4.75	5.75	5.625	1.375	1.375
	2.375	1.875	2.25	1.625	2.0	1.75	1.875	1.75	2.125	6.0	5.875	3.5	5.375	7.0	7.25	1.125	1.5
	1.75	2.0	2.125	1.5	2.25	3.75	1.375	1.75	1.75	5.5	4.125	4.75	4.5	5.0	6.5	1.5	1.625
	2.5	2.125	1.875	1.75	1.75	2.25	1.5	1.75	1.75	5.75	4.5	3.875	3.875	6.5	7.0	1.5	1.75
	2.25	1.5	1.625	1.25	1.875	1.5	1.375	1.75	1.875	6.0	5.75	3.0	4.0	5.625	6.5	1.625	1.5
	2.25	2.25	1.75	1.5	2.0	1.75	1.375	1.875	2.0	4.5	4.375	3.375	4.375	5.875	6.25	1.25	1.5
	2.0	1.5	2.0	1.375	1.875	1.125	1.75	1.625	2.0	4.75	5.375	3.25	4.0	5.375	6.375	1.375	1.75
	1.625	2.375	2.0	1.125	1.5	1.375	1.625	2.375	1.75	4.75	5.375	3.375	4.5	7.0	6.5	1.875	1.375
	1.75	1.875	1.75	2.125	2.0	2.0	1.625	1.625	2.5	6.5	4.875	3.0	4.5	5.25	6.0	1.25	1.25
	1.75	2.5	1.875	1.375	1.375	1.875	1.75	2.25	1.375	5.75	4.5	2.875	4.25	5.75	6.375	1.375	1.375
	1.875	1.5	2.5	1.875	1.25	2.25	1.75	1.625	2.0	5.5	5.25	4.0	4.5	6.375	5.5	1.375	1.25
	2.25	2.25	2.0	1.75	1.5	1.75	1.5	1.625	1.625	5.75	3.875	3.375	3.875	4.875	5.75	1.5	1.625
	2.375	2.0	2.125	1.875	1.125	1.75	1.875	2.0	2.5	6.25	5.75	3.25	3.875	6.375	6.5	1.5	1.375
	2.0	1.625	2.0	1.5	1.25	1.875	1.5	1.625	1.875	5.0	4.5	3.625	4.0	5.5	4.75	1.5	1.875
	2.625	2.0	1.5	1.375	2.75	1.625	1.375	2.0	1.625	4.625	2.875	4.75	3.875	4.75	5.0	1.125	1.0
	2.375	2.125	2.25	2.0	2.0	1.875	1.875	1.875	1.375	5.375	5.375	3.5	5.0	5.75	6.0	1.5	1.75
	1.875	2.0	1.5	1.5	1.875	2.125	1.625	1.375	1.875	5.5	4.0	3.5	3.375	5.75	6.25	1.5	1.25
	2.0	2.5	2.375	1.5	2.375	1.875	1.0	1.5	1.75	5.875	4.5	3.875	5.0	6.0	7.25	1.5	1.25
	1.75	2.0	1.75	1.75	1.875	1.5	1.5	1.625	1.75	4.5	4.75	5.5	3.875	6.0	5.5	1.25	1.25
	2.0	1.75	1.75	1.5	1.5	2.0	1.75	1.75	2.375	5.0	5.0	4.25	4.125	4.0	6.75	1.375	1.25
	2.0	2.25	2.0	1.5	3.0	2.0	1.375	1.5	1.75	5.0	5.375	3.75	4.375	6.0	5.5	1.625	1.75
	2.0	2.5	1.875	2.125	2.875	2.25	1.75	2.125	1.875	5.75	6.0	3.5	4.125	6.75	6.5	1.5	1.25
	1.75	2.125	1.625	1.5	2.625	2.0	1.125	1.625	2.125	6.0	4.5	5.5	5.0	6.5	7.5	1.5	1.125
	2.75	1.875	2.375	1.5	1.75	1.875	1.875	2.0	1.625	6.5	4.875	2.5	4.0	6.375	6.25	1.375	1.5
	2.125	2.375	1.75	1.75	2.0	2.5	1.75	1.75	1.5	4.75	4.25	3.0	4.375	5.5	5.875	1.0	1.625
	1.75	2.25	2.25	1.625	2.125	2.5	1.75	1.875	1.875	6.75	4.0	2.75	3.5	5.625	5.875	1.375	1.25
	2.25	2.375	2.25	1.75	1.5	2.0	1.375	2.125	1.5	6.375	5.5	4.0	3.875	6.0	6.75	1.375	1.375
	2.0	2.25	1.625	2.25	1.75	1.875	1.375	1.75	2.0	5.375	5.75	4.0	3.875	6.5	6.75	1.5	1.875
Averages.....	2.054	2.041	1.987	1.635	1.982	1.943	1.593	1.804	1.867	5.520	4.808	3.750	4.275	5.866	5.937	1.437	1.441

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	2.75	1.0826	B¹	2.25	0.8858	B¹	2.0	0.7874	B¹	6.75	2.4606	B¹	5.375	2.1161	B¹	1.875	0.7381
	B²	2.5	0.9842	B²	3.375	1.3287	B²	2.125	0.8366	B²	6.0	2.3622	B²	7.0	2.7559	B²	1.875	0.7381
	B³	2.5	0.9842	B³	3.75	1.4763	B³	2.5	0.9842	B³	5.5	2.1653	B³	8.25	3.2480	...	.....	.....
Highest	.....	2.75	1.0826	.....	3.75	1.4763	.....	2.5	0.9842	.....	6.75	2.4606	.....	8.25	3.2480	...	1.875	0.7381
Minimum measurements.	B¹	1.25	0.4921	B¹	1.125	0.4429	B¹	1.0	0.3937	B¹	4.5	1.7716	B¹	3.5	1.3779	B¹	1.0	0.3937
	B²	1.5	0.5906	B²	1.125	0.4429	B²	1.375	0.5413	B²	3.375	1.3287	B²	4.0	1.5748	B²	1.0	0.3937
	B³	1.5	0.5906	B³	1.5	0.5906	B³	1.375	0.5413	B³	2.75	1.0826	B³	4.75	1.8700	...	.....	.....
Lowest	.....	1.25	0.4921	.....	1.125	0.4429	.....	1.0	0.3937	.....	2.75	1.0826	.....	3.5	1.3779	...	1.0	0.3937
Average measurements..	B¹	2.054	0.8086	B¹	1.635	0.6436	B¹	1.593	0.6271	B¹	5.520	2.1732	B¹	4.275	1.6830	B¹	1.437	0.5657
	B²	2.041	0.8035	B²	1.982	0.7803	B²	1.804	0.7102	B²	4.808	1.8929	B²	5.866	2.3094	B²	1.441	0.5673
	B³	1.987	0.7822	B³	1.943	0.7649	B³	1.867	0.7114	B³	3.750	1.4763	B³	5.937	2.3378	...	.....	.....
Average	.....	2.027	0.7980	.....	1.853	0.7295	.....	1.761	0.6933	.....	4.692	1.8472	.....	5.026	1.9787	...	1.439	0.5665
Measurements above average..	.....	37		.....	45		.....	35		.....	49		.....	56		...	29	
Measurements below average..	.....	63		.....	45		.....	55		.....	41		.....	44		...	41	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	SILESIAN MERINO.							LEICESTER AND LINCOLN.			BLACK WOOL.		
Catalogue number of sample ..	209.		210.		211.		212.	234.			202.		
Length of fiber in crimp.....	11¼ inches.		1⅛ inches.		1⅝ inches.		⅞ inch.	——			——		
Number of crimps per inch	25.		25.		25.		26.	——			——		
Number of section.....	B¹.	B².	B¹.	B².	B¹.	B².	B¹.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	1.875	1.625	1.75	1.875	2.375	1.75	1.5	4.5	3.375	4.5	2.75	3.5	3.875
	2.0	2.0	1.75	1.625	1.75	1.75	1.375	4.5	3.0	4.0	4.0	3.0	3.5
	2.75	1.625	1.75	1.5	1.5	2.0	1.75	3.75	4.5	4.25	3.375	2.125	3.25
	1.625	1.5	1.75	1.75	1.875	1.625	1.76	3.875	3.75	3.0	3.0	2.5	3.875
	1.25	1.375	1.25	1.5	1.5	1.5	1.875	4.5	4.0	2.75	2.875	2.875	3.5
	1.875	2.25	1.5	1.625	2.0	1.75	1.25	3.5	4.5	4.375	3.75	4.375	4.0
	1.375	1.0	1.625	1.625	1.625	1.375	3.0	4.0	3.375	4.0	3.5	2.0	2.75
	1.375	2.0	1.5	1.875	1.5	1.25	1.25	3.5	2.375	3.5	2.75	4.0	4.375
	2.25	2.375	1.875	2.0	2.0	1.75	1.875	4.0	3.0	3.0	3.5	3.0	3.0
	1.25	2.5	1.875	2.125	2.125	1.25	1.375	3.75	5.0	4.75	4.5	3.375	4.25
	1.75	1.5	1.875	1.625	2.0	1.625	1.625	3.5	4.75	4.875	3.75	4.375	3.25
	2.0	1.25	1.375	1.625	1.375	1.625	2.0	3.75	4.25	4.875	3.5	2.5	1.5
	1.25	1.625	1.75	1.75	1.75	1.75	1.75	4.0	3.375	2.5	3.5	2.375	3.875
	1.75	1.375	1.625	1.875	1.75	1.375	1.375	5.25	5.0	2.75	2.875	3.375	3.5
	1.75	2.0	1.5	2.125	1.875	1.625	1.5	3.5	3.375	2.5	3.5	2.875	4.375
	1.25	1.5	1.75	1.375	1.75	1.5	1.5	4.0	4.875	3.375	3.0	4.125	3.0
	1.75	1.0	1.25	1.75	1.5	1.75	1.25	3.5	2.875	3.75	4.0	2.5	3.625
	1.25	2.5	1.75	1.75	1.375	1.75	1.375	4.5	3.75	2.875	3.125	3.0	2.875
	1.375	1.375	1.5	1.625	1.5	1.625	1.125	4.875	3.125	4.125	1.875	3.5	3.0
	1.375	2.0	1.875	1.375	1.25	1.75	1.375	4.875	3.375	3.25	2.75	3.5	3.375
	1.875	2.875	2.0	1.375	1.75	1.5	2.375	3.375	3.875	4.5	1.75	2.5	2.5
	1.5	1.75	1.875	1.875	1.625	1.625	2.375	3.5	3.75	4.5	3.5	3.0	3.875
	1.875	1.5	1.5	1.75	1.75	1.375	1.5	4.0	3.875	3.5	2.5	4.0	4.0
	1.875	1.5	1.875	1.75	1.75	1.5	1.5	3.25	2.375	4.25	1.75	3.5	3.5
	1.75	1.875	1.875	1.875	1.625	1.5	1.125	3.25	4.5	3.0	2.75	3.0	3.5
	1.375	2.125	3.0	2.0	1.75	1.75	1.0	3.75	4.0	3.5	2.75	3.5	3.875
	1.75	2.0	1.625	1.5	1.75	2.0	1.375	3.875	3.5	3.75	1.375	2.5	3.25
	1.125	2.25	1.75	1.75	1.75	1.5	1.625	4.0	4.0	4.25	3.375	2.75	3.25
	2.0	1.375	1.5	1.5	1.5	1.75	1.75	3.0	2.875	3.75	1.5	3.5	4.75
	1.875	1.5	1.625	1.5	1.5	2.0	1.375	4.5	3.0	4.375	1.75	2.25	3.0
Averages.....	1.670	1.804	1.667	1.708	1.704	1.615	1.595	3.937	3.721	3.845	2.763	3.112	3.408

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	2.75	1.6826	B¹	2.0	0.7874	B¹	2.375	0.9350	B¹	3.0	1.1811	B¹	4.875	1.9192	B¹	4.5	1.7716
	B²	2.875	1.1318	B²	2.125	0.8366	B²	2.0	0.7874	B²	.....	.....	B²	5.0	1.9685	B²	4.375	1.7224
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B³	4.875	1.9192	B³	4.75	1.8700
Highest	.....	2.875	1.1318	.....	2.125	0.8366	....	2.375	0.9350	.....	3.0	1.1811	.....	5.0	1.9685	.....	4.75	1.8700
Minimum measurements.	B¹	1.125	0.4429	B¹	1.25	0.4921	B¹	1.25	0.4921	B¹	1.0	0.3937	B¹	3.0	1.1811	B¹	1.375	0.5413
	B²	1.0	0.3937	B²	1.375	0.5413	B²	1.25	0.4921	B²	.....	.....	B²	2.375	0.9350	B²	2.0	0.7874
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B³	2.5	0.9842	B³	1.5	0.5905
Lowest	.....	1.0	0.3937	.....	1.25	0.4921	....	1.25	0.4921	.....	1.0	0.3937	.....	2.375	0.9350	.....	1.375	0.5413
Average measurements..	B¹	1.670	0.6574	B¹	1.667	0.6562	B¹	1.704	0.6708	B¹	1.595	0.6279	B¹	3.937	1.5499	B¹	2.763	1.0877
	B²	1.804	0.7102	B²	1.708	0.6724	B²	1.615	0.6358	B²	.....	.....	B²	3.721	1.4649	B²	3.112	1.2251
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B³	3.845	1.5137	B³	3.408	1.3417
Average.....	.....	1.727	0.6838	.....	1.688	0.6645	....	1.658	0.6527	.....	1.595	0.6279	.....	3.834	1.5094	.....	3.094	1.2181
Measurements above average..	.....	31		.....	32		....	[illegible]		.....	12		.....	43		.....	[illegible]	
Measurements below average..	.....	[illegible]		.....	28		....	30		.....	18		.....	47		.....	[illegible]2	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	GOAT HAIR.			BOSTON GRADES.									
Catalogue number of samples	203.			237a.		237b.		237c.		238a.		238b.	
Grade of sample				No. 2.		No. 2.		No. 2.		No. 1.		No. 1.	
Length of fiber in crimp	——			——		——		——		——		——	
Number of crimps per inch	——			——		[illegible]		[illegible]		——		——	
Number of section	B^1.	B^1.	B^2.	B^1.	B^2.	B^1.	B^2.	B^1.	B^2.	B^1.	B^2.	B^1.	B^2.
Actual measurement in centimillimeters.	7.	9.25	5.875	2.75	2.75	2.625	3.375	3.0	3.0	1.625	2.125	1.5	2.0
	7.5	7.0	4.875	1.875	1.875	3.625	3.375	1.625	3.75	1.75	2.625	1.625	2.0
	7.25	9.0	6.625	2.375	2.875	2.75	2.0	1.75	2.75	2.0	2.0	2.125	2.0
	11.	7.0	7.0	1.75	2.25	3.5	2.25	2.0	2.375	1.875	2.75	2.0	2.375
	6.	6.5	5.0	2.75	2.625	2.5	2.75	2.125	3.75	1.875	1.75	1.875	2.75
	1.75	7.5	11.25	2.5	2.375	2.875	2.375	1.75	3.75	2.125	2.25	2.125	2.625
	4.0	7.0	5.5	3.25	2.625	3.0	3.0	2.25	2.6	1.875	2.25	2.0	2.375
	7.0	5.875	7.5	2.75	3.0	1.625	2.5	1.375	2.5	1.875	2.6	2.25	2.625
	8.25	4.375	6.5	2.5	2.5	2.375	2.0	2.0	2.75	2.125	2.6	2.0	1.875
	6.0	7.75	4.5	2.0	2.5	1.75	2.125	1.875	2.75	1.75	2.5	1.875	2.375
	7.5	6.75	7.0	2.5	2.5	2.5	2.875	2.0	3.375	2.125	1.875	2.125	2.75
	7.25	8.5	7.25	1.75	2.25	2.875	3.0	1.75	2.375	1.5	1.875	2.25	3.0
	7.5	3.0	4.75	2.0	3.0	2.625	2.5	2.125	3.125	2.0	2.5	2.0	2.25
	6.0	7.25	6.5	2.0	2.25	1.875	2.875	2.75	2.625	1.75	2.0	2.0	2.0
	5.25	5.375	9.5	1.5	2.5	1.875	2.375	2.0	2.0	2.0	2.0	2.375	2.75
	3.75	10.25	6.0	2.5	2.875	3.375	2.0	2.5	3.0	1.75	2.375	1.625	2.25
	3.0	7.875	3.5	2.125	2.25	3.0	2.0	1.875	2.5	2.25	2.375	2.375	2.5
	11.0	5.0	7.5	1.875	2.625	2.875	2.0	2.5	2.375	1.875	1.625	2.0	2.125
	4.0	7.125	4.25	2.5	2.75	2.125	3.75	2.375	2.5	2.5	2.0	2.375	1.75
	9.5	9.5	7.0	2.375	3.25	2.5	2.625	3.125	3.0	1.875	2.25	1.5	1.625
	5.5	8.5	6.25	2.125	2.5	3.25	3.25	2.0	3.25	1.75	1.875	2.25	2.625
	7.5	9.5	6.5	2.0	1.75	1.375	3.0	3.0	2.125	1.75	2.625	1.75	1.75
	7.	3.5	7.0	1.75	2.25	2.875	3.25	1.875	3.75	1.875	2.875	2.5	2.0
	5.875	9.75	6.5	2.375	2.375	1.875	3.5	1.875	3.5	2.375	3.0	2.125	2.25
	7.0	3.375	3.75	2.5	2.25	2.875	3.25	2.875	2.25	2.5	2.375	2.0	2.0
	5.25	5.375	5.5	2.125	3.75	2.0	4.0	2.5	3.5	2.0	2.0	2.25	2.375
	3.75	6.375	14.5	2.375	3.125	2.125	1.875	2.25	2.875	1.75	2.5	2.0	2.5
	3.875	[illegible]	5.0	2.75	2.875	2.25	2.25	1.75	3.0	1.75	1.875	1.875	2.875
	6.25	[illegible]	4.25	2.375	1.875	2.0	3.25	3.75	2.25	1.75	2.875	3.0	2.375
	7.875	12.5	6.75	1.875	2.5	2.0	2.375	2.5	2.25	1.5	2.0	1.875	3.375
Averages	6.529	7.382	6.529	2.229	2.564	2.462	2.723	2.210	2.833	1.949	2.227	2.054	2.337

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B^1	11.09	4.3307	B^1	3.25	1.2795	B^1	3.625	1.4271	B^1	3.75	1.4763	B^1	2.5	0.9842	B^1	3.0	1.1811
	B^2	16.25	6.3976	B^2	3.75	1.4763	B^2	4.0	1.5748	B^2	3.75	1.4763	B^2	2.875	1.1318	B^2	3.375	1.3287
	B^3	14.50	5.7086	....	.....	.....	....	.....	.....	....	.....	.....	....	.....	.....	....	.....	.....
Highest	.....	16.25	6.3976	....	3.75	1.4763	....	4.0	1.5748	....	3.75	1.4763	....	2.875	1.1318	....	3.375	1.3287
Minimum measurements.	B^1	3.75	1.4763	B^1	1.5	0.5905	B^1	1.375	0.5413	B^1	1.875	0.5413	B^1	1.5	0.5905	B^1	1.5	0.5905
	B^2	3.0	1.1811	B^2	1.75	0.6889	B^2	1.875	0.7381	B^2	2.0	0.7874	B^2	1.625	0.6397	B^2	1.625	0.6397
	B^3	3.5	1.3779	....	.....	.....	....	.....	.....	....	.....	.....	....	.....	.....	....	.....	.....
Lowest	.....	3.05	1.1811	....	1.5	0.5905	....	1.375	0.5413	....	1.375	0.5413	....	1.5	0.5905	....	1.5	0.5905
Average measurements.	B^1	5.329	2.5704	B^1	2.229	0.8775	B^1	2.462	0.9692	B^1	2.210	0.8700	B^1	1.949	0.7673	B^1	2.054	0.8086
	B^2	7.382	2.9062	B^2	2.564	1.0094	B^2	2.723	1.0723	B^2	2.933	1.1153	B^2	2.227	0.8767	B^2	2.337	0.9200
	B^3	6.529	2.504	....	.....	.....	....	.....	.....	....	.....	.....	....	.....	.....	....	.....	.....
Average	.....	6.413	2.6822	....	2.396	0.9433	....	2.503	1.0208	....	2.521	0.9925	....	2.068	0.8220	....	2.195	0.8641
Measurements above average	.....	45		....	30		....	30		....	23		....	23		....	24	
Measurements below average	.....	45		....	30		....	30		....	37		....	37		....	36	

TABLE II.—*Results of actual measurements of length, crimps, and fineness, with recapitulations and reductions*—Cont'd.

	BOSTON GRADES.											
Catalogue number of samples..	238c.		239a.		239b.		239c.		240a.		240b.	
Grade of sample.....	No. 1.		PICKLOCK.		PICKLOCK.		PICKLOCK.		XXX.		XXX.	
Length of fiber in crimp.....	——		——		——		——		——		——	
Number of crimps per inch....	14.		22.		22.		22.		22.		22.	
Number of section.....	B¹.	B².	B¹.	B².	B¹.	B².	B¹.	B².	B¹.	B².	B¹.	B².
Actual measurement in centimillimeters.	2.625	2.25	2.0	1.5	1.125	2.125	1.125	1.5	1.25	1.5	1.25	1.875
	2.0	2.25	1.375	1.875	1.625	1.875	1.0	1.375	1.5	1.875	1.375	1.875
	1.25	2.25	1.375	1.5	1.5	1.625	1.0	1.25	2.0	2.0	0.875	2.375
	2.0	2.125	1.375	1.5	1.25	1.375	1.375	1.625	1.125	1.75	1.125	1.75
	1.875	2.0	1.25	2.125	1.125	1.5	1.25	1.5	1.0	1.875	1.125	1.875
	1.75	2.0	1.125	2.0	1.625	1.25	1.375	1.375	1.0	1.5	1.25	1.875
	1.5	1.875	1.375	2.25	1.375	2.0	1.125	1.25	1.125	1.875	1.0	1.875
	2.0	2.125	1.25	1.625	1.875	2.25	1.0	1.5	1.0	2.25	1.125	2.0
	2.5	2.0	1.5	1.875	1.5	1.25	1.0	1.5	1.25	1.875	0.875	1.875
	2.5	2.625	1.25	2.5	1.125	2.0	1.375	1.5	1.75	2.0	1.375	1.75
	2.625	3.25	1.375	1.5	1.875	1.5	1.25	1.375	1.375	1.5	1.375	1.75
	2.0	2.75	1.875	1.375	1.0	1.5	1.125	1.625	1.25	2.0	1.0	1.5
	2.375	2.5	1.375	1.375	1.0	2.75	1.0	1.5	1.375	2.25	1.375	2.0
	2.375	2.25	1.375	1.625	1.5	1.75	1.25	1.375	1.375	1.875	1.5	1.875
	1.75	2.0	1.625	2.0	2.0	1.375	1.0	1.25	1.25	2.0	0.875	2.0
	2.0	2.375	1.25	2.25	1.375	1.625	1.0	1.5	1.375	2.0	1.375	1.875
	2.0	2.0	1.375	1.5	1.25	1.5	1.0	1.5	1.375	1.875	1.25	1.75
	1.75	2.0	1.375	1.375	1.5	1.125	1.0	1.25	1.375	1.875	1.375	1.5
	2.0	3.125	1.0	1.75	1.0	2.0	0.875	1.5	1.25	2.25	1.0	1.625
	1.625	2.5	1.25	1.5	1.125	1.25	1.125	1.5	1.375	1.75	1.125	2.25
	1.875	2.875	1.125	1.375	1.125	1.5	1.0	1.625	1.5	1.875	1.0	1.75
	2.5	2.375	2.25	1.75	1.75	1.5	1.125	1.5	1.375	1.875	1.0	1.5
	1.75	2.125	1.375	1.75	1.25	2.25	1.0	1.375	1.25	2.0	1.0	2.0
	2.0	2.0	1.125	1.375	1.375	2.0	1.0	1.375	1.0	1.875	1.5	1.5
	2.0	3.375	1.0	1.375	1.25	1.75	1.0	1.75	1.375	2.0	1.25	1.375
	2.375	3.375	1.25	1.375	1.875	1.875	1.25	1.5	1.375	1.5	1.75	1.875
	2.5	2.875	2.125	1.5	1.75	1.625	1.375	1.375	1.25	1.75	1.125	2.25
	1.75	3.125	1.0	1.375	2.0	1.75	1.375	1.75	1.375	1.5	1.375	1.75
	1.5	3.125	1.0	1.75	1.875	1.5	0.875	2.0	1.375	1.75	1.25	1.75
	1.875	1.625	1.25	1.625	1.875	1.5	0.75	1.375	0.875	2.25	1.25	1.625
Averages.....	2.027	2.437	1.441	1.675	1.469	1.695	1.100	1.492	1.304	1.841	1.204	1.812

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹.	2.625	1.0334	B¹.	2.25	0.8858	B¹.	2.0	0.7874	B¹.	1.375	0.5413	B¹.	2.0	0.7874	B¹.	1.75	0.6889
	B².	3.375	1.3287	B².	2.5	0.9842	B².	2.75	1.0826	B².	2.0	0.7874	B².	2.25	0.8858	B².	2.375	0.9350
Highest.....	.....	3.375	1.3287	.....	2.5	0.9842	.....	2.75	1.0826	....	2.0	0.7874	....	2.25	0.8858	....	2.375	0.9350
Minimum measurements.	B¹.	1.25	0.4921	B¹.	1.0	0.3937	B¹.	1.0	0.3937	B¹.	0.75	0.2952	B¹.	0.875	0.3444	B¹.	0.875	0.3444
	B².	1.625	0.6397	B².	1.375	0.5413	B².	1.25	0.4921	B².	1.25	0.4921	B².	1.5	0.5905	B².	1.375	0.5413
Lowest	.....	1.25	0.4921	.....	1.0	0.3937	.....	1.0	0.3937	....	0.75	0.2952	....	0.875	0.3444	....	0.875	[illegible]
Average measurements..	B¹.	2.027	0.7980	B¹.	1.441	0.5673	B¹.	1.469	0.5783	B¹.	1.100	0.4330	B¹.	1.304	0.5133	B¹.	1.204	0.4740
	B².	2.437	0.9594	B².	1.675	0.6594	B².	1.695	0.6673	B².	1.492	0.5874	B².	1.841	0.7248	B².	1.812	0.7333
Average	.....	2.232	0.8787	.....	1.558	0.6133	.....	1.582	0.6228	....	1.296	0.5192	....	1.572	0.6188	....	1.508	0.5936
Measurements above average..	.....	27		.....	20		.....	27		....	31		....	27		....	26	
Measurements below average..	.....	33		.....	40		.....	33		....	29		....	33		....	34	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and deductions*—Cont'd.

	BOSTON GRADES.																	
Catalogue number of samples..	240c.		241.			242.		243.			244.			245a.				
Grade of sample.....	XXX.		DELAINE, FINE.			DELAINE, MEDIUM.		COMBING, COARSE.			COMBING, MEDIUM.			[XX.				
Length of fiber in crimp.....	——		——			——		——			——			——				
Number of crimps per inch....	[illegible]		20.			——		——			——			20.				
Number of section.....	B¹.	B².	B¹.	B².	B³.	B¹.	B².	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.		
Actual measurement in centimillimeters.	1.5	2.125	2.0	1.625	1.625	2.625	1.75	3.0	3.0	3.0	2.5	2.625		1.25	1.875			
	1.375	2.0	1.5	1.875	1.875	2.0	4.125	2.375	3.375	2.5	2.5	2.5		1.25	2.			
	1.375	1.75	1.625	2.125	1.375	1.5	2.375	2.375	2.75	3.875	2.625	2.		1.125	1.5			
	1.625	2.25	1.5	1.375	1.5	2.75	3.375	2.25	2.625	3.375	2.75	2.375		1.375	2.			
	1.5	1.875	1.625	2.125	1.625	1.375	2.5	2.25	2.875	3.25	1.5	2.125		1.625	1.875			
	1.375	1.75	1.375	1.5	1.625	2.5	2.375	1.875	3.0	2.875	2.75	2.5		1.25	1.625			
	1.625	1.75	1.875	2.0	2.0	1.5	3.375	2.0	2.25	2.375	2.75	2.875		1.25	1.375			
	1.375	2.125	1.75	1.5	1.625	2.0	2.25	1.875	2.125	2.375	1.75	2.5		1.375	1.5			
	1.5	2.125	1.75	1.625	1.625	2.0	2.25	1.875	2.5	3.	2.25	2.625		1.25	1.75			
	1.5	1.875	2.0	1.875	1.875	2.0	1.75	2.125	2.5	3.125	2.25	1.625		1.0	1.5			
	1.5	1.5	1.625	1.75	1.75	2.25	3.25	2.25	4.375	2.875	2.5	2.375		1.0	2.			
	1.375	2.0	1.375	1.5	1.5	2.875	2.75	3.5	2.75	3.25	2.375	2.375		0.875	1.25			
	1.0	1.625	1.375	1.75	1.5	1.75	2.25	2.0	3.875	2.875	1.625	2.25		1.25	1.875			
	1.5	1.5	1.375	2.0	2.0	2.0	2.0	1.875	2.875	3.	2.125	2.25		1.125	2.			
	1.125	1.875	1.625	1.625	1.75	2.375	2.5	2.25	3.375	3.25	2.0	1.5		1.0	1.75			
	1.25	2.0	1.5	1.75	1.75	1.75	2.625	2.25	3.0	3.25	2.25	2.		1.0	1.5			
	1.5	1.875	1.75	1.5	1.625	1.625	2.875	2.25	2.5	3.75	2.0	2.25		1.375	1.75			
	1.375	2.125	1.375	2.0	1.75	1.625	3.375	2.75	2.5	2.25	2.125	2.5		1.125	1.625			
	1.375	2.125	1.75	2.0	2.0	2.875	2.25	2.0	2.5	3.375	2.	2.25		1.875	1.5			
	1.125	1.625	1.5	1.875	1.875	2.375	2.25	2.75	2.125	4.25	2.25	1.75		1.25	2.0			
	1.25	2.125	1.5	1.75	1.875	1.5	3.75	2.375	2.375	2.	2.5	1.875		1.375	1.875			
	1.25	1.625	1.5	1.5	1.75	1.375	3.25	2.0	2.75	2.125	2.25	2.5		1.375	1.5			
	1.25	1.875	1.875	1.875	1.625	2.375	2.375	1.875	2.75	3.375	2.75	2.125		1.75	1.875			
	1.5	1.875	1.75	1.75	1.5	2.5	2.625	2.25	2.25	3.25	2.0	1.75		0.875	2.375			
	1.25	2.0	1.875	2.125	1.875	1.75	3.25	1.875	4.0	3.25	2.5	1.875		1.5	1.75			
	1.75	1.5	1.5	1.75	1.625	1.625	2.5	2.5	3.875	1.875	3.25	2.125		1.125	1.875			
	1.25	1.875	1.375	2.5	1.875	2.5	3.875	2.625	2.75	4.0	2.875	1.875		1.5	2.0			
	1.5	1.875	1.75	1.5	1.5	2.875	3.0	1.25	2.125	3.75	2.0	1.75		1.0	2.0			
	1.25	1.5	1.875	2.375	2.0	1.25	3.0	2.0	3.375	3.5	2.25	2.375		1.375	1.875			
	1.25	1.75	1.375	1.75	1.625	1.625	3.25	1.075	3.0	2.0	2.25	2.75		1.125	1.25			
Averages.....	1.379	1.820	1.620	1.803	1.700	2.067	2.787	2.233	2.934	3.066	2.316	2.275		1.254	1.770			

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reductions:																		
Maximum measurements.	B¹	1.75	0.6889	B¹	2.0	0.7874	B¹	3.5	1.3779	B¹	3.5	1.3779	B¹	3.25	1.2795	B¹	1.875	0.7381
	B²	2.25	0.8858	B²	2.5	0.9842	B²	4.125	1.6240	B²	4.375	1.7224	B²	3.0	1.1811	B²	2.375	0.9350
	....	.....	.....	B³	2.0	0.7874	....	.....	.....	B³	4.25	1.6929	....	.....	.....	....	.....	.....
Highest.....	....	2.25	0.8858	.....	2.5	0.9842	....	4.125	1.6240	.....	4.375	1.7224	....	3.25	1.2795	....	2.375	0.9350
Minimum measurements.	B¹	1.0	0.3937	B¹	1.375	0.5413	B¹	1.25	0.4921	B¹	1.25	0.4921	B¹	1.5	0.5905	B¹	0.875	0.3444
	B²	1.5	0.5905	B²	1.375	0.5413	B²	1.75	0.6889	B²	2.125	0.8366	B²	1.75	0.6889	B²	1.25	0.4921
	....	.....	.....	B³	1.375	0.5413	....	.....	.....	B³	1.875	0.7381	....	.....	.....	....	.....	.....
Lowest.....	....	1.0	0.3937	.....	1.375	0.5413	....	1.25	0.4921	.....	1.25	0.4921	....	1.75	0.6889	....	0.875	0.3444
Average measurements..	B¹	1.379	0.5429	B¹	1.62	0.6377	B¹	2.067	0.8137	B¹	2.233	0.8791	B¹	2.316	0.9118	B¹	1.254	0.4936
	B²	1.820	0.7165	B²	1.808	0.7118	B²	2.787	1.0972	B²	2.934	1.1433	B²	2.275	0.8956	B²	1.770	0.6968
	....	.....	.....	B³	1.700	0.6692	....	.....	.....	B³	3.066	1.2070	....	.....	.....	....	.....	.....
Average.....	....	1.599	0.6295	.....	1.709	0.6728	....	2.427	0.9555	.....	2.734	1.8763	....	2.295	0.9035	....	1.512	0.5952
Measurements above average..	....	79		.....	46		....	28		.....	48		....	28		....	25	
Measurements below average..	....	81		.....	44		....	83		.....	42		....	32		....	35	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	BOSTON GRADES.											
Catalogue number of samples..	245*b*.		245*c*.		246*a*.		246*b*.		246*c*.		247*a*.	
Grade of samples.....	XX.		XX.		X.		X.		X.		DELAINE, FINE.	
Length of fiber in crimp.....	——		——		——		——		——		——	
Number of crimps per inch....	20.		20.		20.		20.		20.		20.	
Number of section.....	B^1.	B^2.	B^1.	B^2.	B^1.	B^2.	B^1.	B^2.	B^1.	B^2.	B^1.	B^2.
Actual measurement in centimillimeters.	1.75	1.75	1.5	1.375	1.25	2.	2.	2.875	1.75	1.875	2.	1.5
	1.5	2.	1.25	2.	1.25	1.875	1.	1.5	1.875	2.75	1.75	2.
	1.5	1.875	1.	2.	1.5	1.	2.	1.5	1.	2.375	1.875	2.
	2.	1.875	1.5	1.875	1.125	2.5	2.	1.375	1.25	1.75	2.	1.625
	1.75	2.	1.25	2.125	1.25	2.25	0.875	1.375	1.	2.	2.	1.625
	2.	1.875	1.125	1.875	1.25	1.75	1.	1.75	1.	2.875	1.875	1.25
	2.5	2.	1.	1.5	1.25	1.875	1.	1.875	1.625	2.375	2.	1.875
	1.875	2.25	1.25	1.875	1.125	2.25	1.875	2.5	1.25	2.375	1.875	1.625
	1.75	1.5	1.375	2.	1.25	1.375	1.	1.5	1.75	2.5	1.375	2.
	1.625	2.25	1.125	1.	1.375	2.	1.375	1.375	1.625	2.	1.75	1.375
	1.875	1.5	1.25	2.	1.375	1.5	0.875	1.625	0.875	2.	1.875	1.5
	1.375	2.	1.125	1.875	1.125	1.5	2.25	2.25	1.625	1.5	1.625	1.5
	2.125	1.875	1.375	1.5	1.125	2.5	1.125	2.	1.25	1.875	1.75	1.75
	1.5	2.	1.125	2.	1.375	1.875	1.5	2.625	1.25	2.125	2.	1.875
	1.375	2.125	1.375	1.5	1.	1.5	1.	2.75	1.25	1.75	1.875	1.5
	1.875	1.875	1.375	1.5	1.	2.	1.625	2.125	2.125	1.625	1.875	1.875
	1.875	1.875	1.5	1.875	1.	2.5	0.875	2.625	1.	1.625	2.	2.125
	1.875	2.	2.25	1.5	1.125	1.75	1.875	2.5	1.625	1.375	2.	1.75
	2.375	1.75	1.25	1.875	1.75	1.75	3.125	1.25	1.5	1.75	2.25	2.
	2.125	2.375	1.	1.875	1.5	2.25	1.875	2.5	1.25	1.75	1.75	1.875
	1.5	1.75	1.375	1.75	1.875	1.75	1.125	2.	1.25	2.25	1.625	1.875
	1.875	1.875	1.5	1.875	1.5	1.75	1.25	2.	0.875	1.75	1.	1.5
	1.75	1.875	1.125	1.875	1.875	1.75	1.625	1.875	1.25	2.125	1.875	1.875
	1.75	2.25	1.125	2.375	1.75	2.125	1.375	1.75	1.375	1.625	1.875	2.
	1.75	1.5	1.	2.	1.625	1.375	1.75	1.625	1.75	1.5	1.875	2.25
	2.	1.875	2.	2.	1.75	2.	1.	1.5	1.125	2.	1.75	1.625
	1.5	1.75	1.	1.25	1.25	1.875	1.25	1.625	0.875	1.75	2.	1.75
	2.	2.	1.	1.875	2.	1.75	1.375	1.875	1.	2.	2.	1.5
	1.875	2.125	1.5	2.375	1.5	1.625	1.375	1.375	1.5	1.75	1.875	1.375
	1.875	2.	1.	1.875	1.625	1.5	1.25	1.5	1.125	2.25	2.	1.875
Averages.....	1.850	1.925	1.320	1.845	1.395	1.850	1.454	1.865	1.363	1.975	1.845	1.741

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B^1	2.5	0.9842	B^1	2.25	0.8858	B^1	2.0	0.7874	B^1	3.125	1.2303	B^1	2.125	0.8366	B^1	2.25	0.8858
	B^2	2.375	0.9350	B^2	2.375	0.9350	B^2	2.5	0.9842	B^2	2.875	1.1318	B^2	2.875	1.1318	B^2	2.25	0.8858
Highest.....	.....	2.5	0.9842	.....	2.375	0.9350	.....	2.5	0.9842	....	3.125	1.2303	....	2.875	1.1318	....	2.25	0.8858
Minimum measurements.	B^1	1.375	0.5413	B^1	1.0	0.3937	B^1	1.0	0.3937	B^1	0.875	0.3444	B^1	0.875	0.3444	B^1	1.375	0.5413
	B^2	1.5	0.5905	B^2	1.25	0.4921	B^2	1.375	0.5413	B^2	1.25	0.4921	B^2	1.375	0.5413	B^2	1.25	0.4921
Lowest.....	.....	1.375	0.5413	.....	1.0	0.3937	.....	1.00	0.3937	....	0.875	0.3444	....	0.875	0.3444	....	1.25	0.4921
Average measurements..	B^1	1.850	0.7283	B^1	1.320	0.5196	B^1	1.395	0.5492	B^1	1.454	0.5728	B^1	1.363	0.5366	B^1	1.845	0.7263
	B^2	1.925	0.7578	B^2	1.845	0.7263	B^2	1.850	0.7283	B^2	1.865	0.7342	B^2	1.975	0.7775	B^2	1.741	0.6854
Average.....	.....	1.887	0.7429	.....	1.582	0.6228	.....	1.622	0.6385	....	1.660	0.6535	....	1.669	0.6570	....	1.793	0.7059
Measurements above average..	.....	23		.....	26		.....	32		....	26		....	29		....	36	
Measurements below average..	.....	17		.....	14		.....	28		....	34		....	31		....	24	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	BOSTON GRADES.											
Catalogue number of samples..	247b.		247a.		248d.		248b.		248c.		249a.	
Grade of sample	DELAINE, FINE.		DELAINE, FINE.		DELAINE, MEDIUM.		DELAINE, MEDIUM.		DELAINE, MEDIUM.		UNWASHED DELAINE.	
Length of fiber in crimp.....	——		——		——		——		——		——	
Number of crimps per inch	20.		20.		——		——		——		20.	
Number of section.....	B¹.	B².	B¹.	B².	B¹.	B².	B¹.	B².	B¹.	B².	B¹.	B².
Actual measurement in centimillimeters.	2.875 1.75 1.375 1.75 2 1.875 1.5 1.75 1.625 2.25 1.875 1.75 1.5 1.75 1.75 1.5 1.625 1.875 1.75 2 1.875 1.875 1.875 1.375 1.75 1.875 2 2. 2.25 1.875	2.25 1.875 1.875 1.875 1.875 1.5 1.75 1.875 1.75 1.75 1.5 1.625 1.75 1.375 1.75 1.5 1.5 1.5 1.875 1.625 2 1.75 1.875 1.5 1.875 1.75 1.875 1.875	2.5 2.625 2 2.125 2.5 2.5 2.5 1.75 2.25 2.375 1.5 2.375 2.625 1.75 2 2. 2.5 1.625 1.75 2.5 1.875 1.75 2.5 2.25 2.375 2.375 1.875 3.375	2. 1.75 1.375 1.5 1.5 2.375 1.5 1.625 1.875 2.125 1.125 1.875 1.875 1.75 1.75 1.75 1.625 1.625 1.75 1.625 1.75 1.625 1.75 2.125 2. 1.875 2.125 1.875	3.25 1.875 2.75 1.625 2.0 2.625 2.625 2.625 2.5 2.375 2.25 2.375 2.625 2.5 2.25 2.5 2.25 1.625 1.625 2.25 2.5 2.875 2.25 2.875 2.875 2.875 1.875 2.875 2.875 2.5	3.375 3.875 2.0 2.625 1.875 3.0 2.5 1.5 2.5 3.0 2.5 3.5 3.0 2.5 2.5 2.5 2.5 3.75 2.0 2.5 2.5 2.5 2.5 2.5 2.5 3.125 3.5 4.5 2.5	2.0 2.875 2.25 2.375 2.875 3.0 3.0 1.875 2.875 2.5 2.5 2.5 2.25 2.5 2.5 2.5 2.25 1.5 2.5 2.5 2.5 2.5 2.5 2.5 2.125 2.5 2.5 2.375	2.5 2.0 2.125 2.25 2.625 2.5 2.625 1.5 2.375 2.5 2.125 2.0 2.125 2.25 1.875 2.625 2.875 2.125 1.75 2.75 2.875 2.5 2.75 2.5 2.875 2.5 2.5 2.5 2.5 2.5 2.5

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	BOSTON GRADES.													
Catalogue number of sample...	249*b*.		249*c*.		250.						251.		252.	
Grade of sample.....	UNWASHED DELAINE.		UNWASHED DELAINE.		SPANISH MERINO.						PICKLOCK.		XXX.	
Length of fiber in crimp.....	——		——		4⅞ inches.						——		——	
Number of crimps per inch....	20.		20.		20.						22.		22.	
Number of section	B¹.	B².	B¹.	B².	B¹.	B².	B³.	B⁴.	B⁵.	B⁶.	B¹.	B².	B¹.	B².
Actual measurement in centimillimeters.	1.5	1.75	1.875	2.0	2.125	1.5	1.5	2.875	2.625	1.875	1.375	1.5	1.5	2.0
	1.625	1.625	1.75	1.5	2.125	1.5	1.625	1.75	2.375	1.875	1.25	1.625	1.5	1.625
	1.625	1.5	1.75	2.25	2.5	1.75	1.75	2.25	2.25	1.875	1.5	1.375	1.5	2.25
	1.25	1.375	1.625	2.25	2.125	1.625	2.125	1.875	1.75	2.0	1.375	1.625	1.375	1.875
	1.25	2.125	2.0	2.125	1.75	1.5	2.0	1.5	1.875	1.625	1.5	1.375	1.25	1.875
	1.5	1.875	2.0	2.0	1.75	1.75	1.5	1.625	2.125	1.875	1.5	1.5	1.5	1.875
	1.875	2.25	1.875	2.0	1.75	1.75	2.25	1.75	2.5	1.875	1.5	1.625	1.375	2.0
	1.25	2.25	1.875	2.0	1.875	1.75	2.25	2.5	2.0	2.0	1.0	1.5	1.375	1.75
	1.375	2.125	1.5	2.0	2.0	1.5	1.5	1.875	1.75	1.5	1.375	1.5	1.125	2.0
	1.375	1.75	2.125	2.25	2.25	1.5	2.5	1.75	2.625	1.75	1.375	1.375	1.75	2.0
	1.25	1.625	1.875	1.875	2.0	1.25	2.0	2.0	1.875	2.5	1.5	1.5	1.375	1.375
	1.625	2.375	2.0	2.0	2.0	1.625	1.875	2.375	2.75	1.5	1.25	2.0	1.5	1.375
	1.25	2.375	2.0	2.375	2.0	1.875	2.0	2.25	2.5	1.75	0.875	1.5	1.25	1.75
	1.625	1.875	1.75	2.375	2.125	2.25	2.5	1.875	2.375	2.125	1.5	1.625	0.875	1.875
	1.5	2.0	1.5	1.875	1.75	2.0	3.25	1.5	1.875	1.625	1.375	1.625	1.0	1.75
	1.125	1.875	1.75	2.0	2.0	1.75	1.875	1.75	2.0	2.75	1.5	1.5	0.875	1.625
	1.25	2.0	1.125	2.0	2.0	1.625	2.125	2.375	3.0	1.875	1.375	1.625	1.5	2.0
	1.625	2.375	1.875	2.0	1.5	1.5	2.5	1.875	1.875	1.75	1.5	1.5	1.5	1.5
	1.25	2.125	2.0	1.75	2.0	1.75	2.275	1.75	2.125	2.5	1.5	1.5	1.5	1.875
	1.0	2.0	1.625	2.0	2.75	1.75	2.375	2.25	1.625	1.75	1.625	1.375	1.5	2.0
	1.375	2.0	1.625	2.125	2.25	1.625	2.375	2.125	2.0	2.0	1.25	1.25	1.375	1.75
	1.0	2.25	1.875	2.75	2.25	2.0	1.5	2.875	1.625	1.875	1.0	1.375	1.0	1.875
	1.375	1.875	1.625	2.125	1.875	1.625	2.0	1.5	2.375	1.75	1.375	1.5	1.0	2.0
	1.25	1.75	1.875	1.875	1.875	2.0	2.5	2.5	1.875	1.875	1.5	1.625	1.0	1.625
	1.125	1.875	1.875	2.5	1.75	1.75	2.5	1.5	2.625	1.625	1.5	1.75	1.0	1.875
	1.25	1.875	1.75	2.0	1.5	1.75	1.875	2.5	2.0	1.75	1.25	1.625	1.25	1.375
	1.375	1.75	1.375	1.875	1.75	2.5	2.5	1.875	2.25	1.75	1.375	1.75	1.5	1.875
	1.5	1.75	1.875	2.5	1.875	1.5	2.875	1.875	1.75	2.5	1.375	1.75	1.0	1.5
	1.25	1.75	1.75	1.875	1.875	2.5	2.25	1.25	2.25	1.625	1.125	1.625	1.25	1.5
	1.5	1.875	1.75	2.5	1.5	1.5	2.25	1.625	2.0	1.75	1.25	1.375	1.125	1.875
Averages.....	1.370	1.933	1.758	2.091	1.962	1.743	2.150	1.979	1.154	1.895	1.358	1.545	1.287	1.787

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹.	1.875	0.7381	B¹.	2.125	0.8366	B¹.	2.75	1.0826	B¹.	1.625	0.6397	B¹.	1.75	0.6889
	B².	2.375	0.9350	B².	2.5	0.9842	B².	2.5	0.9842	B².	2.0	0.7874	B².	2.25	0.8858
	....	.....	.....	....	.....	.....	B³.	2.875	1.1318	....	.....	.....	....	.....	.....
	....	.....	.....	....	.....	.....	B⁴.	2.875	1.1318	....	.....	.....	....	.....	.....
	....	.....	.....	....	.....	.....	B⁵.	2.75	1.0826	....	.....	.....	....	.....	.....
	....	.....	.....	....	.....	.....	B⁶.	2.5	0.9842	....	.....	.....	....	.....	.....
Highest	....	2.375	0.9350	....	2.5	0.9842	.....	2.875	1.1318	....	2.0	0.7874	....	2.25	0.8858
Minimum measurements.	B¹.	1.0	0.3937	B¹.	1.125	0.4429	B¹.	1.5	0.5905	B¹.	0.875	0.3444	B¹.	1.0	0.3937
	B².	1.5	0.5905	B².	1.5	0.5905	B².	1.5	0.5905	B².	1.25	0.4921	B².	1.375	0.5413
	....	.....	.....	....	.....	.....	B³.	1.5	0.5905	....	.....	.....	....	.....	.....
	....	.....	.....	....	.....	.....	B⁴.	1.25	0.4921	....	.....	.....	....	.....	.....
	....	.....	.....	....	.....	.....	B⁵.	1.625	0.6397	....	.....	.....	....	.....	.....
	....	.....	.....	....	.....	.....	B⁶.	1.5	0.5905	....	.....	.....	....	.....	.....
Lowest	....	1.0	0.3937	....	1.125	0.4429	.....	1.25	0.4921	....	0.875	0.3444	....	1.0	0.3937
Average measurements..	B¹.	4.370	0.5393	B¹.	1.758	0.6913	B¹.	1.962	0.7724	B¹.	1.358	0.5346	B¹.	1.287	0.5066
	B².	1.933	0.7610	B².	2.091	0.8232	B².	1.743	0.7649	B².	1.545	0.6082	B².	1.787	0.7035
	....	.....	.....	....	.....	.....	B³.	2.150	0.8464	....	.....	.....	....	.....	.....
	....	.....	.....	....	.....	.....	B⁴.	1.979	0.7791	....	.....	.....	....	.....	.....
	....	.....	.....	....	.....	.....	B⁵.	2.154	0.8480	....	.....	.....	....	.....	.....
	....	.....	.....	....	.....	.....	B⁶.	1.895	0.7460	....	.....	.....	....	.....	.....
Average	....	1.651	0.6499	....	1.924	0.7574	.....	1.980	0.7795	....	1.452	0.5716	....	1.537	0.6051
Measurements above average..	....		27	....		29	.....		83	....		35	....		25
Measurements below average..	....		31	....		31	.....		97	....		25	....		[illegible]

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

BOSTON GRADES.

	253.	254.	255.	256.	257.	258.
Catalogue number of samples						
Grade of sample	XX.	X.	No. 1.	No. 2.	DELAINE, FINE.	DELAINE, MEDIUM.
Length of fiber in crimp	——	——	——	——	——	——
Number of crimps per inch	20.	16.	——	——	16.	——

Number of section	B^1.	B^2.	B^1.	B^2.	B^1.	B^2.	B^1.	B^2.	B^1.	B^2.	B^1.	B^2.	B^3.
Actual measurement in centimillimeters.	2.5	2.375	1.625	2.5	2.375	2.	[illegible]	2.25	1.75	2.	2.25	2.	3.75
	1.75	1.875	2.25	2.5	2.125	2.375	2.5	3.25	1.75	1.875	2.25	2.375	2.125
	2.	2.75	1.5	2.	2.5	1.625	2.75	2.5	2.125	2.5	1.875	1.875	2.375
	1.75	1.75	1.5	[illegible]	2.25	2.375	[illegible]	2.25	2.25	1.625	1.5	2.	2.
	1.625	1.5	1.5	1.75	[illegible]	1.75	2.875	2.5	1.75	2.5	[illegible]	3.375	2.625
	1.5	2.125	1.875	1.875	1.75	2.5	3.	2.375	1.75	1.875	1.75	1.75	2.75
	1.625	1.875	2.375	2.	2.	1.5	2.	3.	1.875	1.875	1.5	2.125	[illegible]
	1.5	2.5	2.25	2.125	1.875	[illegible]	2.125	2.875	1.5	2.375	1.875	1.875	3.
	1.875	1.5	1.5	1.625	1.625	2.375	2.75	3.	1.375	1.5	1.75	2.5	2.375
	1.625	1.625	1.5	2.25	2.125	[illegible]	2.5	2.75	1.625	1.875	2.625	1.875	2.5
	1.5	1.75	1.375	2.	1.875	1.875	3.875	3.5	1.5	1.5	2.25	2.	[illegible]
	1.5	2.25	2.25	2.125	1.5	1.875	3.5	[illegible]	1.75	2.	2.375	2.25	2.25
	1.75	2.	1.375	2.	2.125	2.25	2.375	2.25	1.625	2.5	1.5	1.5	1.875
	1.375	1.75	2.375	1.75	2.	1.875	4.	3.	1.5	1.75	3.25	3.	1.875
	1.5	2.	1.875	2.	2.25	2.5	3.75	2.5	1.5	2.	[illegible]	[illegible]	[illegible]
	2.	1.5	2.	1.625	1.5	2.	2.375	[illegible]	1.875	[illegible]	2.25	1.375	2.
	1.5	2.25	3.25	1.75	2.25	2.375	3.	2.625	[illegible]	1.75	1.625	1.75	1.375
	1.5	1.75	1.875	1.875	1.5	2.25	2.5	1.875	1.75	[illegible]	2.	[illegible]	2.
	1.5	2.125	2.375	[illegible]	1.875	2.	2.5	2.875	[illegible]	[illegible]	1.75	1.5	2.
	1.5	1.5	1.5	1.5	1.625	2.125	[illegible]	3.125	1.75	1.75	1.75	1.875	1.875
	1.875	1.875	2.	1.75	2.125	2.5	3.	2.875	[illegible]	1.75	2.	1.875	3.
	1.875	1.75	1.75	2.	1.375	1.875	[illegible]	3.	1.5	1.875	2.875	1.75	2.
	1.75	1.625	2.	1.625	[illegible]	[illegible]	2.875	3.25	1.5	1.625	1.5	2.	2.
	1.5	1.875	1.75	2.25	[illegible]	1.5	2.375	2.875	1.875	1.875	2.5	[illegible]	1.75
	1.875	1.875	2.625	2.25	1.875	2.25	4.	3.625	1.75	1.875	2.25	1.875	3.
	1.75	2.5	2.375	2.5	2.	2.75	2.375	1.75	1.375	2.	2.5	1.875	2.875
	1.375	[illegible]	1.5	2.	2.	2.375	3.125	2.875	1.5	1.75	1.875	1.875	2.75
	1.875	1.875	1.375	2.5	2.25	[illegible]	3.	2.25	[illegible]	2.	1.5	1.875	1.875
	1.5	1.75	2.375	2.	[illegible]	[illegible]	3.25	2.5	1.25	1.625	1.75	[illegible]	1.875
	2.	2.5	2.	2.375	[illegible]	[illegible]	3.5	3.	1.5	1.5	[illegible]	2.25	2.
Averages	1.691	1.995	1.929	2.016	1.991	2.179	[illegible]	[illegible]	1.704	1.862	2.070	2.008	[illegible]

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B^1	2.5	[illegible]	B^1	3.25	1.2795	B^1	2.375	0.9350	B^1	4.00	1.5748	B^1	2.25	0.8858	B^1	[illegible]	[illegible]
	B^2	2.75	1.0826	B^2	[illegible]	0.9842	B^2	2.75	1.0826	B^2	3.625	1.4271	B^2	2.5	0.9842	B^2	3.375	1.3287
										B^3	2.25	0.8858				B^3	3.75	1.4763
Highest	....	2.75	1.0826	....	3.25	1.2795	....	2.75	1.0826	....	4.00	1.5748	....	2.50	0.9842	.....	3.75	1.4763
Minimum measurements.	B^1	1.5	0.5905	B^1	1.375	0.5413	B^1	1.375	0.5413	B^1	2.125	0.8366	B^1	1.25	0.4921	B^1	1.5	0.5905
	B^2	1.375	0.5413	B^2	1.5	0.5905	B^2	1.625	0.6397	B^2	1.75	0.6889	B^2	1.5	0.5905	B^2	1.375	0.5413
																B^3	1.375	0.5413
Lowest	....	1.375	0.5413	....	1.375	0.5413	....	1.375	0.5413	....	1.75	0.6889	....	1.25	0.4921	.....	1.375	0.5413
Average measurements.	B^1	1.691	0.6657	B^1	1.929	0.7594	B^1	1.991	0.7838	B^1	2.950	1.1614	B^1	1.704	0.6708	B^1	[illegible]	[illegible]
	B^2	1.995	0.7854	B^2	2.016	0.7936	B^2	2.179	0.8578	B^2	2.708	1.0661	B^2	1.862	0.7330	B^2	[illegible]	0.7905
																B^3	2.291	[illegible]
Average	....	1.843	0.7255	....	1.972	0.7763	....	2.085	0.8208	....	2.829	1.1137	....	1.783	0.7413	.....	2.123	0.8358
Measurements above average		27			34			28			23			26			35	
Measurements below average		33			26			32			27			34			[illegible]	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

BOSTON GRADES.

	259.			260.				261.		262.		263.	
Grade of sample	COMBING, MEDIUM.			COMBING, COARSE.									
Length of fiber in crimp	——			——				1½ inches.		1½ inches.		1½ inches.	
Number of crimps per inch	——			——				20.		20.		20.	
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B¹.	B².	B¹.	B².	B¹.	B².
Actual measurement in centimillimeters.	3.5	2.875	2.75	2.875	3.0	3.5	3.5	1.625	2.0	2.5	2.25	2.0	2.0
	2.5	4.0	1.75	2.625	2.5	2.0	2.5	1.5	2.0	1.625	2.25	1.5	1.875
	2.5	2.75	2.125	3.875	3.25	3.75	4.0	1.75	1.875	2.5	2.25	1.5	1.5
	2.375	3.0	2.375	3.75	4.0	3.75	2.0	1.5	2.25	1.875	1.875	1.875	1.75
	3.0	3.5	2.375	2.75	2.75	3.0	3.5	1.875	3.0	2.375	2.25	1.375	2.125
	2.625	3.125	1.75	2.25	1.875	2.875	2.875	1.875	1.875	2.0	2.125	1.75	1.875
	2.0	2.875	2.0	4.0	4.0	2.5	3.75	2.0	2.125	2.375	2.75	1.5	2.375
	3.25	3.75	3.25	3.125	2.375	3.25	3.0	1.5	2.0	2.5	2.25	1.75	1.5
	3.0	2.75	3.75	3.0	3.5	2.5	2.375	1.75	1.875	2.375	2.375	1.75	1.875
	2.25	2.625	2.375	3.75	3.75	2.75	4.5	2.0	2.5	2.375	2.0	1.5	1.875
	3.0	2.75	2.625	3.75	2.0	2.5	2.0	2.0	1.875	2.0	2.375	1.625	1.875
	3.375	2.375	1.875	2.875	2.75	2.25	3.5	1.875	1.75	1.625	2.375	1.5	2.0
	3.25	3.75	2.125	2.5	3.375	3.0	4.0	1.875	1.875	1.875	4.0	1.5	2.0
	2.875	3.125	2.25	2.5	3.5	2.5	2.125	1.75	2.125	1.875	2.5	1.125	2.25
	3.0	3.5	2.25	2.5	3.25	3.0	2.875	1.0	1.875	2.0	2.0	1.75	2.0
	2.375	3.5	1.5	4.0	2.75	3.0	2.625	1.5	2.0	2.625	2.125	1.375	2.0
	2.25	3.5	2.375	2.5	2.25	2.5	3.75	1.875	2.25	1.5	2.5	1.5	1.625
	2.25	3.375	2.25	3.125	3.25	3.0	3.75	1.625	1.75	1.375	2.5	1.375	2.0
	2.75	3.0	1.875	2.5	2.625	2.375	3.0	1.625	2.0	3.0	2.25	1.5	1.875
	3.0	3.0	2.0	4.0	3.375	3.25	2.125	2.0	1.625	1.5	2.0	1.625	2.25
	3.5	2.75	2.75	3.375	2.625	3.5	2.5	1.5	2.75	1.75	3.0	1.875	1.875
	3.0	2.75	2.25	3.375	2.375	2.5	2.25	1.5	2.5	2.25	3.0	1.375	2.5
	2.5	3.375	2.25	2.0	1.875	2.75	3.25	1.5	2.0	2.25	2.625	1.25	2.25
	3.0	3.0	2.25	2.875	3.25	2.375	3.375	1.625	2.125	2.875	2.125	1.75	1.75
	3.0	3.5	1.75	3.5	2.75	3.0	2.875	1.625	1.625	2.125	2.875	1.5	1.875
	3.0	2.5	2.0	3.375	3.125	2.5	2.375	1.625	2.25	1.875	2.125	1.5	2.5
	2.75	3.75	2.875	3.0	3.0	3.375	3.0	1.625	2.5	3.0	2.375	1.375	2.0
	2.5	3.25	2.0	3.0	2.25	2.75	2.25	1.625	2.25	2.0	2.25	1.5	1.875
	2.75	2.5	1.5	2.125	2.375	2.75	3.5	2.25	2.0	2.0	3.0	2.125	2.0
	2.75	3.75	2.875	3.75	3.25	2.5	2.625	1.75	2.125	2.375	2.0	1.25	1.875
Averages	2.795	3.141	2.270	2.087	2.900	2.841	2.991	1.704	2.091	2.112	2.425	1.582	1.970

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	3.5	1.3779	B¹	4.0	1.5748	B¹	2.25	0.8858	B¹	3.0	1.1811	B¹	2.125	0.8366
	B²	4.0	1.5748	B²	4.0	1.5748	B²	3.0	1.1811	B²	4.0	1.5748	B²	2.375	0.9350
	B³	3.75	1.4763	B³	3.75	1.4763									
				B⁴	4.5	1.7716									
Highest		4.0	1.5748		4.5	1.7716		3.0	1.1811		4.0	1.5748		2.375	0.9350
Minimum measurements.	B¹	2.0	0.7874	B¹	2.0	0.7874	B¹	1.0	0.3937	B¹	1.375	0.5413	B¹	1.125	0.4429
	B²	2.375	0.9350	B²	1.875	0.7381	B²	1.625	0.6397	B²	1.875	0.7381	B²	1.5	0.5905
	B³	1.5	0.5905	B³	2.0	0.7874									
				B⁴	2.0	0.7874									
Lowest		1.5	0.5905		1.875	0.7381		1.0	0.3937		1.375	0.5413		1.125	0.4429
Average measurements.	B¹	2.795	1.1003	B¹	3.087	1.2153	B¹	1.704	0.6708	B¹	2.112	0.8314	B¹	1.582	0.6228
	B²	3.141	1.2362	B²	2.900	1.1417	B²	2.091	0.8232	B²	2.425	0.9547	B²	1.970	0.7755
	B³	2.270	0.8936	B³	2.841	1.1185									
				B⁴	2.991	1.1775									
Average		2.735	1.0767		2.952	1.1622		1.897	1.7468		2.268	0.8929		1.776	0.6992
Measurements above average		51			32			25			26			29	
Measurements below average		39			60			35			34			31	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	BOSTON GRADES.											
Catalogue number of samples	264.		265.		266.		267.		268.		[illegible]	
Length of fiber in crimp	1½ inches.		1½ inches.		1½ inches.		1½ inches.		1½ inches.		——	
Number of crimps per inch	20.		——		——		——		20.		——	
Number of section	B¹.	B².	B¹.	B².	B¹.	B².	B¹.	B².	B¹.	B².	B¹.	B².
Actual measurement in centimillimeters.	2.625	2.25	2.375	1.875	2.25	1.5	2.5	2.125	2.5	1.875	2.0	1.75
	2.5	1.875	1.5	1.875	2.125	2.25	1.75	2.75	2.0	2.0	2.0	1.75
	3.0	2.5	2.375	2.25	1.875	2.25	1.5	2.375	1.75	2.0	2.125	2.0
	2.25	2.375	2.0	2.0	2.0	2.0	1.875	2.5	1.725	1.75	2.0	1.875
	2.875	2.375	1.875	1.625	2.0	2.125	2.25	1.75	1.75	1.875	1.875	1.75
	2.5	2.25	2.125	2.25	2.0	1.875	2.25	3.0	1.625	1.75	1.875	1.875
	2.25	2.25	2.5	2.375	1.5	2.0	2.25	2.25	1.75	1.875	2.25	2.0
	2.875	2.375	2.25	2.5	1.75	1.625	1.875	3.0	1.375	1.75	2.0	2.375
	2.5	2.375	2.0	1.75	1.875	1.875	1.875	2.375	1.875	1.5	2.0	1.75
	2.5	2.0	1.75	2.0	2.25	1.5	1.25	2.375	1.875	2.375	2.0	2.0
	2.25	1.375	2.0	2.25	2.0	1.875	2.125	2.375	1.75	2.25	2.0	1.875
	2.625	2.875	1.625	2.0	2.0	2.175	2.0	2.625	1.75	2.5	1.875	2.25
	2.0	2.375	2.0	2.875	1.875	2.375	1.375	2.25	1.5	1.875	1.75	2.375
	2.25	2.5	1.0	2.0	1.75	1.375	1.75	2.5	1.875	2.0	1.75	2.0
	2.25	2.0	1.875	1.375	2.75	2.0	1.5	3.0	1.875	2.25	2.375	1.5
	1.875	2.375	2.25	2.375	1.625	2.0	2.0	3.0	1.75	1.875	1.75	1.625
	2.0	2.125	1.625	1.875	1.75	1.75	2.125	3.375	1.875	2.0	2.0	2.25
	2.25	1.25	2.0	2.0	2.25	1.875	1.375	2.625	1.625	2.5	2.0	1.875
	1.875	1.75	2.0	2.25	1.875	2.0	1.75	2.25	2.25	2.0	1.75	1.75
	1.375	2.25	1.875	2.125	2.5	2.0	1.875	3.0	2.0	2.25	2.0	2.375
	2.375	2.0	2.125	2.0	2.0	2.125	1.125	2.5	1.5	2.0	1.75	1.75
	2.125	2.0	2.25	1.875	1.75	2.125	2.0	2.875	1.75	1.875	1.875	1.75
	2.0	1.625	1.625	2.0	1.5	2.0	1.5	2.5	1.75	2.0	1.625	1.5
	2.25	2.5	1.5	2.125	2.25	2.125	1.875	2.5	1.75	2.375	2.375	1.875
	2.0	2.0	1.75	2.0	2.0	2.0	1.75	2.75	1.75	1.875	2.125	2.0
	2.375	2.0	2.0	2.0	2.0	2.375	2.0	2.5	1.875	1.5	1.875	2.125
	2.875	2.0	1.5	2.375	2.375	1.75	1.25	2.375	1.875	1.875	2.25	1.75
	2.5	2.0	2.125	1.875	1.875	2.0	2.0	3.0	2.0	2.25	1.625	2.0
	2.375	1.625	1.75	2.0	1.75	2.0	1.75	2.5	1.75	1.75	2.0	1.875
	2.375	2.5	1.875	2.0	2.0	2.0	1.625	2.25	1.75	2.0	2.5	2.0
Averages	2.329	2.125	1.910	2.059	[illegible]	1.995	1.804	2.625	1.785	1.991	1.949	1.920

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements	B¹	3.0	1.1811	B¹	2.375	0.9350	B¹	2.75	1.0826	B¹	2.25	0.8858	B¹	2.25	0.8858	B¹	2.5	0.9842
	B²	2.875	1.1318	B²	2.875	1.1318	B²	2.375	0.9350	B²	3.375	1.3287	B²	2.375	0.9350	B²	2.375	0.9350
Highest	.....	3.0	1.1811	.....	2.875	1.1318	.....	2.75	1.0826	....	3.375	1.3287	....	2.375	0.9350	...	2.5	0.9842
Minimum measurements	B¹	1.375	0.5413	B¹	1.0	0.3937	B¹	1.5	0.5905	B¹	1.125	0.4429	B¹	1.375	0.5413	B¹	1.625	0.6397
	B²	1.25	0.4921	B²	1.375	0.5413	B²	1.375	0.5413	B²	1.75	0.6889	B²	1.5	0.5905	B²	1.5	0.5905
Lowest	.....	1.25	0.4921	.....	1.0	0.3937	.....	1.375	0.5413	....	1.125	0.4429	....	1.375	0.5413	....	1.625	0.6397
Average measurements	B¹	2.329	0.9169	B¹	1.910	0.7519	B¹	[illegible]	0.7874	B¹	1.804	0.7102	B¹	1.785	0.7027	B¹	1.949	0.7673
	B²	2.125	0.8366	B²	2.059	0.8106	B²	[illegible]	0.7854	B²	2.625	1.0334	B²	1.991	0.7838	B²	1.920	0.7559
Average	.....	2.227	0.8767	.....	1.984	0.7811	.....	1.907	0.7862	....	2.214	0.8716	....	1.888	0.7433	....	1.934	0.7614
Measurements above average	.....	37		.....	[illegible]		.....	37		....	31		....	21		....	31	
Measurements below average	.....	23		.....	22		.....	[illegible]		....	[illegible]		....	[illegible]		....	29	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	BOSTON GRADES.											
Catalogue number of samples..	270.		271.		272.		273.		17.			
Length of fiber in crimp	——		——		——		——		2⅛ inches.			
Number of crimps per inch	——		——		——		——		20.			
Number of section.....	B¹.	B².	B¹.	B².	B¹.	B².	B¹.	B².	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	1.375	1.75	1.375	1.375	1.875	2.0	1.875	2.0	1.625	1.5	2.0	2.375
	1.375	1.625	1.5	1.625	1.75	1.625	1.375	1.5	1.5	2.125	1.875	2.0
	1.875	2.0	1.375	1.875	1.75	1.375	1.375	1.375	1.875	2.5	2.0	2.0
	1.75	1.5	1.25	1.75	1.5	1.625	1.375	1.5	2.0	2.0	1.875	1.875
	1.875	1.75	1.5	1.25	1.5	2.0	1.625	1.375	1.75	2.0	1.875	2.125
	2.0	1.75	1.25	1.625	1.625	1.875	1.625	1.625	1.5	2.25	1.875	1.875
	1.75	1.875	1.375	1.75	1.5	1.875	1.5	1.5	1.5	2.0	2.375	2.375
	1.75	1.75	1.75	1.75	1.75	1.75	1.5	1.5	1.375	2.5	1.75	2.0
	1.375	1.875	1.5	1.875	1.5	1.5	1.75	1.5	1.875	1.875	1.5	1.75
	1.25	1.5	1.0	1.75	2.0	1.5	2.0	1.5	2.25	1.875	1.875	2.0
	1.375	1.625	1.75	1.75	1.75	1.875	1.875	1.375	1.875	1.675	2.0	2.25
	1.625	2.125	1.5	1.875	1.5	1.75	1.5	2.0	1.5	2.125	2.0	1.875
	1.375	1.875	1.75	1.75	2.0	1.625	1.625	2.0	1.875	1.875	2.0	2.0
	1.625	2.75	1.75	1.75	1.5	1.625	1.75	1.5	1.875	2.375	2.0	2.0
	1.75	1.5	1.5	1.625	1.75	1.625	1.375	1.75	2.0	1.875	2.0	1.75
	1.5	1.75	1.5	1.875	1.375	1.5	1.875	1.5	2.0	2.375	2.0	1.875
	1.375	1.875	1.75	0.875	1.75	1.875	1.375	1.5	1.5	2.0	2.0	1.875
	1.625	2.0	1.375	2.0	1.875	1.625	1.625	1.75	1.75	1.75	2.0	2.0
	1.375	2.375	1.375	1.75	1.875	1.75	1.625	1.875	2.0	2.875	2.0	1.5
	1.375	2.0	1.5	1.375	1.5	1.5	1.5	1.75	1.75	1.75	2.25	1.75
	1.375	1.875	1.625	1.675	1.5	1.5	1.5	1.875	2.0	1.875	1.875	1.875
	1.25	1.5	1.75	2.0	1.75	1.625	1.625	2.25	2.0	1.75	1.875	1.5
	1.375	1.875	1.75	1.5	1.625	1.625	1.5	1.75	1.5	2.0	2.0	1.75
	1.5	2.5	1.375	1.625	1.75	1.625	1.5	1.875	1.875	1.75	1.875	1.5
	1.25	2.5	1.625	2.0	2.0	2.25	1.75	1.75	1.75	2.375	2.0	2.0
	1.75	1.75	1.625	1.75	1.75	2.25	1.25	1.875	1.625	2.375	1.875	1.625
	1.375	1.875	1.375	1.75	2.0	1.75	1.75	1.5	1.75	1.875	1.75	2.0
	1.25	2.375	6.5	1.375	1.375	2.25	1.25	2.0	1.875	2.375	1.75	1.5
	1.75	1.875	1.375	1.375	1.375	1.5	1.75	1.5	2.0	2.75	2.0	1.875
	1.5	1.75	0.875	1.5	2.125	2.0	1.875	1.75	2.25	2.0	2.0	1.875
Averages	1.547	1.570	1.561	1.641	1.710	1.741	1.635	1.676	1.800	2.080	1.941	1.891

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	2.0	0.7874	B¹	1.75	0.6889	B¹	2.125	0.8366	B¹	2.0	0.7874	B¹	2.25	0.8858
	B²	2.75	1.0826	B²	2.0	0.7874	B²	2.25	0.8858	B²	2.25	0.8858	B²	2.875	1.1318
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B³	2.375	0.9350
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B⁴	2.375	0.9350
Highest	.....	2.75	1.0826	.....	2.0	0.7874	.....	2.25	0.8858	.....	2.25	0.8858	.....	2.875	1.1318
Minimum measurements.	B¹	1.25	0.4921	B¹	0.875	0.3444	B¹	1.375	0.5413	B¹	1.375	0.5413	B¹	1.375	0.5413
	B²	1.5	0.5905	B²	0.875	0.3444	B²	1.375	0.5413	B²	1.375	0.5413	B²	1.5	0.5905
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B³	1.5	0.5905
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B⁴	1.5	0.5905
Lowest	.....	1.25	0.4921	.....	0.875	0.3444	.....	1.375	0.5413	.....	1.375	0.5413	.....	1.375	0.5413
Average measurements..	B¹	1.547	0.6090	B¹	1.561	0.6145	B¹	1.710	0.6732	B¹	1.635	0.6436	B¹	1.800	0.7086
	B²	1.570	0.6181	B²	1.641	0.6460	B²	1.741	0.6854	B²	1.676	0.6598	B²	2.080	0.8188
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B³	1.941	0.7641
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	B⁴	1.891	0.7444
Average	.....	1.553	0.6114	.....	1.601	0.6303	.....	1.725	0.6791	.....	1.655	0.6515	.....	1.948	0.7669
Measurements above average..	.....	38		.....	31		.....	31		.....	25		.....	57	
Measurements below average..	.....	22		.....	29		.....	29		.....	35		.....	63	

TABLE II.—*Results of actual measurements of length, crimp, and fineness, with recapitulations and reductions*—Cont'd.

	BOSTON GRADES.														
Catalogue number of samples..	18.				130.					131.					
Length of fiber in crimp.....	2½ inches.				2½ inches.					2½ inches.					
Number of crimps per inch....	20.				——					——					
Number of section.....	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B⁵.	B¹.	B².	B³.	B⁴.	B⁵.
Actual measurement in centimillimeters.	2.0	1.5	1.875	1.75	2.125	2.375	2.375	2.375	2.0	2.125	2.0	2.0	2.375	2.25
	1.5	1.875	1.875	1.75	2.75	2.375	2.375	2.5	2.75	1.75	1.875	1.875	2.0	2.375
	2.25	1.875	2.0	2.0	2.125	2.25	2.125	2.0	2.5	2.375	1.875	2.125	2.0	2.0
	2.375	2.0	2.0	2.0	2.25	2.5	2.0	2.5	2.25	1.75	2.125	1.875	2.0	2.0
	1.5	2.375	1.875	2.375	2.0	2.0	1.875	2.25	2.5	1.5	1.875	2.75	2.0	2.25
	2.0	2.0	1.5	2.0	2.0	1.5	2.0	2.5	2.25	1.75	1.75	2.125	2.0	2.25
	1.875	1.5	1.75	1.875	2.5	2.25	1.75	2.25	2.75	2.0	1.875	2.125	2.875	1.75
	2.0	2.0	1.75	2.0	1.75	2.0	2.0	1.75	1.875	2.0	1.875	2.0	1.75	2.0
	1.5	1.5	1.875	2.5	2.0	2.0	2.375	1.375	3.0	2.375	2.0	1.875	2.125	2.25
	2.125	2.0	1.75	1.875	2.25	1.625	1.75	2.0	2.25	2.5	1.875	2.375	2.125	2.375
	1.875	1.625	1.75	1.75	1.75	1.625	2.5	2.5	2.25	1.875	1.75	2.125	2.5	2.375
	1.75	1.75	2.25	2.0	1.875	2.375	2.25	1.75	2.125	1.5	1.75	2.0	2.0	2.875
	2.25	1.5	1.75	2.5	1.5	1.625	1.875	2.875	2.375	2.5	2.25	2.375	2.5	2.5
	2.0	1.5	1.75	1.875	2.25	1.875	2.0	3.0	3.0	2.125	1.5	2.125	2.25	2.0
	1.875	1.75	1.5	2.0	1.5	1.625	1.875	2.125	2.125	1.875	2.25	2.0	2.125	1.75
	2.125	1.875	1.875	1.75	2.25	1.875	1.5	2.375	2.125	2.125	1.75	2.375	2.25	2.375
	2.0	2.0	1.75	1.5	1.625	2.0	2.0	2.875	2.125	1.625	2.25	2.125	1.875	2.75
	2.0	2.0	2.0	2.125	2.25	1.75	2.75	2.875	2.625	2.25	2.125	2.375	2.0	1.875
	1.5	2.0	2.25	1.875	1.75	2.125	2.25	1.875	2.125	2.0	2.25	2.125	2.0	1.625
	2.0	1.875	1.75	2.375	1.75	2.125	2.125	1.875	2.375	1.875	2.25	2.25	2.5	2.0
	2.5	1.875	1.625	1.875	2.0	1.625	2.0	2.375	2.5	2.0	1.75	1.375	2.875	2.0
	2.0	2.0	1.5	2.0	1.5	1.75	2.0	2.25	2.375	1.875	1.75	1.875	1.875	2.375
	2.375	1.5	1.5	1.875	1.625	2.25	2.125	2.0	2.75	1.75	2.5	2.375	2.375	2.5
	2.0	2.0	1.625	2.0	1.875	1.75	1.5	2.25	2.5	2.125	1.875	2.25	2.5	2.125
	2.0	2.375	1.5	2.25	2.0	2.875	1.5	2.0	1.875	1.75	1.875	2.625	2.5	2.75
	1.75	1.875	2.0	2.25	2.875	1.875	2.375	2.0	2.125	2.125	2.0	1.875	2.25	2.5
	1.875	2.375	1.875	2.0	1.875	2.25	2.5	2.25	2.125	1.875	2.125	2.375	2.0	2.75
	1.75	2.0	1.875	1.875	1.75	1.75	2.0	1.375	2.375	1.5	2.125	2.375	2.375	1.875
	2.5	2.125	1.375	2.375	2.125	1.75	2.0	2.125	2.5	2.0	1.75	2.25	1.75	2.75
	1.875	1.5	1.875	2.0	1.875	2.25	2.5	2.0	2.5	2.375	1.875	1.625	2.25	2.5
Averages.....	1.970	1.879	1.787	2.012	1.991	2.003	2.075	2.228	2.350	1.975	1.969	2.150	2.228	2.391

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reductions:									
Maximum measurements.	B¹	2.5	0.9842	B¹	2.875	1.1318	B¹	2.5	0.9842
	B²	2.375	0.9350	B²	2.875	1.1318	B²	2.5	0.9842
	B³	2.25	0.8858	B³	2.75	1.0826	B³	2.75	1.0826
	B⁴	2.5	0.9842	B⁴	2.5	1.1811	B⁴	3.125	1.2303
	.....	.....	.....	B⁵	3.0	1.1817	B⁵	2.375	1.3287
Highest.....	.....	2.5	0.9842	.....	3.0	1.1811	.....	3.375	1.3287
Minimum measurements.	B¹	1.5	0.5905	B¹	1.5	0.5905	B¹	1.5	0.5905
	B²	1.5	0.5905	B²	1.5	0.5905	B²	1.5	0.5905
	B³	1.375	0.5413	B³	1.5	0.5905	B³	1.625	0.6397
	B⁴	1.5	0.5905	B⁴	1.375	0.5413	B⁴	1.75	0.6889
	.....	.....	.....	B⁵	1.875	0.7381	B⁵	1.625	0.6397
Lowest	.....	1.375	0.5413	.....	1.875	0.5413	.....	1.5	0.5905
Average measurements..	B¹	1.970	0.7755	B¹	1.991	0.7838	B¹	1.975	0.7775
	B²	1.879	0.7362	B²	2.003	0.7885	B²	1.969	0.7751
	B³	1.787	0.7035	B³	2.075	0.8169	B³	2.150	0.8464
	B⁴	2.012	0.7921	B⁴	2.268	0.8930	B⁴	2.228	0.8889
	.....	.....	.....	B⁵	2.350	0.9251	B⁵	2.391	0.9413
Average.....	.....	1.909	0.7515	.....	2.125	0.8405	.....	2.148	0.8456
Measurements above average..	.....	36		.....	44		.....	50	
Measurements below average..	.....	44		.....	36		.....	30	

TABLE III.—*Individual extremes and averages of fineness of each sample.*

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	COTSWOLD.								
34	Shoulder		6.33	2.4921	2.66	1.0472	4.399	1.7318	6.50
	Side		6.66	2.6220	2.66	1.0472	4.704	1.8519	4.75
	Hip		6.33	2.4921	2.00	0.7874	4.428	1.7433	6.00
	Belly		6.00	2.3622	3.33	1.3110	4.474	1.7614	3.75
35	Shoulder		6.33	2.4921	2.66	1.0472	4.373	1.7216	4.75
	Side		7.00	2.7559	3.00	1.1811	4.404	1.7338	4.25
	Hip		7.00	2.7559	2.66	1.0472	4.303	1.6944	5.25
	Belly		6.00	2.3622	3.33	1.3110	4.633	1.8240	5.30
36	Shoulder		6.00	2.3622	2.00	0.7874	4.111	1.6185	7.25
	Side		5.66	2.2283	2.00	0.7874	4.184	1.6472	8.25
	Hip		6.00	2.3622	2.00	0.7874	4.184	1.6472	8.00
	Belly		6.00	2.3622	2.00	0.7874	4.203	1.6547	5.50
37	Shoulder		6.33	2.4921	2.00	0.7874	4.237	1.6681	9.50
	Side		6.00	2.3622	2.00	0.7874	4.210	1.6574	9.75
	Hip		7.00	2.7559	3.33	1.3110	4.995	1.9665	9.00
	Belly		6.33	2.4921	2.33	0.9173	4.416	1.7385	5.75
38	Shoulder		5.66	2.2283	2.00	0.7874	4.305	1.7948	4.00
	Side		6.00	2.3622	2.33	0.9173	4.419	1.7397	4.50
	Hip		6.66	2.6220	3.33	1.3110	4.972	1.9574	5.50
	Belly		6.33	2.4921	3.00	1.1811	4.229	1.6649	3.25
39	Shoulder		5.66	2.2283	2.66	1.0472	4.088	1.6094	4.50
	Side		6.00	2.3622	2.00	0.7874	4.390	1.7283	4.75
	Hip		5.66	2.2283	3.00	1.1811	4.519	1.7786	5.25
	Belly		7.00	2.7559	2.66	1.0472	4.135	1.6279	3.50
109			4.25	1.6732	1.50	0.5905	2.998	1.1803	.....
170	Shoulder		5.50	2.1653	2.25	0.8858	3.926	1.5456	3.875
	Side		6.375	2.5098	2.25	0.8858	4.117	1.6208	4.00
	Hip		5.25	2.0669	2.125	0.8366	3.828	1.5070	3.50
	Belly		5.50	2.1653	2.25	0.8858	3.810	1.4999	2.25
171	Shoulder		5.25	2.0669	1.625	0.6397	3.721	1.7649	6.00
	Side		5.50	2.1653	1.25	0.4921	3.406	1.3409	6.50
	Hip		5.875	2.3129	2.00	0.7874	4.131	1.6263	6.00
	Belly		4.75	1.8700	1.875	0.7381	3.675	1.4468	3.625
172	Shoulder		4.50	1.7716	1.75	0.6889	3.175	1.2499	4.125
	Side		5.25	2.0669	1.625	0.6397	3.499	1.3775	6.00
	Hip		5.50	2.1653	1.75	0.6889	3.388	1.3338	4.50
	Belly		4.25	1.6732	1.375	0.5413	3.267	1.2862	3.125
173	Shoulder		5.625	2.2945	2.125	0.8366	3.925	1.5452	3.25
	Side		7.00	2.7559	2.375	0.9350	4.130	1.6259	4.50
	Hip		7.75	3.0511	1.75	0.6889	4.785	1.8838	.....
	Belly		5.375	2.1161	2.75	1.0826	3.941	1.5515	2.00
174	Shoulder		5.00	1.9685	2.50	0.9842	3.786	1.4905	4.125
	Side		6.25	2.4606	2.00	0.7874	3.958	1.5582	4.50
	Hip		5.75	2.2637	2.25	0.8858	4.097	1.6129	4.125
	Belly		4.50	1.7716	1.75	0.6889	3.541	1.3940	2.375
175	Shoulder		5.75	2.2637	1.75	0.6889	4.493	1.7688	2.875
	Side		6.875	2.7066	2.125	0.8366	4.613	1.8161	3.25
	Hip		6.875	2.7066	2.875	1.1318	5.165	2.0334	2.75
	Belly		6.25	2.4606	3.125	1.2303	4.354	1.7141	2.00
176	Shoulder		5.50	2.1653	2.875	1.1318	4.206	1.6559	4.125
	Side		6.00	2.3622	3.00	1.1811	4.310	1.6968	4.75
	Hip		6.50	2.5590	2.00	0.7874	4.377	1.7232	4.125
	Belly		5.25	2.0669	1.75	0.6889	4.078	1.6055	2.625
177	Shoulder		5.75	2.2637	2.00	0.7874	3.631	1.4295	3.625
	Side		5.75	2.2637	2.00	0.7874	4.364	1.7181	4.125
	Hip		6.75	2.6574	2.375	0.9350	4.478	1.7629	4.375
	Belly		5.00	1.9685	2.875	1.1318	3.951	1.5555	2.75
178	Shoulder		5.75	2.2637	2.25	0.8858	4.183	1.6468	3.125
	Side		5.75	2.2637	2.00	0.7874	3.890	1.5314	3.25
	Hip		6.00	2.3622	2.50	0.9842	4.460	1.7559	2.875
	Belly		4.75	1.8700	2.625	1.0334	3.645	1.4350	2.125
179	Shoulder		5.875	2.3129	1.875	0.7381	4.250	1.6732	3.875
	Side		6.625	2.6082	1.75	0.6889	4.574	1.8007	4.50
	Hip		6.50	2.5590	2.50	0.9842	5.198	2.0464	3.875
	Belly		6.00	2.3622	2.50	0.9842	4.099	1.6137	3.00
180	Shoulder		6.50	2.5590	2.375	0.9350	4.350	1.7123	3.875
	Side		6.375	2.5098	1.75	0.6889	4.151	1.6342	4.375
	Hip		6.50	2.5590	1.875	0.7381	4.657	1.8334	5.25
181	Shoulder		6.25	2.4606	2.375	0.9350	4.253	1.6744	4.25
	Side		6.375	2.5098	2.25	0.8858	4.570	1.7992	4.00
	Hip		8.25	3.2480	2.75	1.0826	5.023	1.9775	4.375
	Belly		6.00	2.3622	3.00	1.1811	4.374	1.7220	3.375
182	Shoulder		5.625	2.2145	1.75	0.6889	4.136	1.6283	3.875
	Side		5.875	2.3129	1.50	0.5905	4.334	1.7062	3.75
	Hip		6.75	2.5574	2.00	0.7874	4.660	1.8346	4.50
	Belly		5.50	2.1653	1.125	0.4428	4.156	1.6362	3.375
183	Shoulder		5.625	2.2145	2.50	0.9842	4.275	1.6830	10.25
	Side		5.625	2.2145	2.00	0.7874	4.098	1.6133	10.50
	Hip		6.00	2.3622	2.00	0.7874	4.245	1.6712	9.875
	Belly		5.875	2.3129	2.00	0.7874	4.143	1.6310	8.00
184	Shoulder		6.00	2.3622	2.50	0.9842	4.122	1.6228	6.875
	Side		6.25	2.4606	3.00	1.1811	4.574	1.8007	6.25
	Hip		6.625	2.6082	2.75	1.0826	4.865	1.9153	8.00
	Belly		5.50	2.1653	3.00	1.1811	4.273	1.6822	3.625
185	Shoulder		5.75	2.2637	1.50	0.5905	4.042	1.5913	8.50
	Side		5.50	2.1653	2.875	1.1318	4.161	1.6381	9.125
	Hip		6.00	2.3622	2.00	0.7874	4.388	1.7275	7.50
	Belly		5.00	1.9685	2.00	0.7874	3.885	1.5295	6.125
186	Shoulder		6.00	2.3622	3.00	1.1811	4.506	1.7740	6.00
	Side		6.50	2.5590	2.25	0.8858	4.273	1.6822	6.75
	Hip		7.125	2.8051	1.50	0.5905	4.580	1.8031	9.00
	Belly		6.50	2.5590	3.00	1.1811	4.581	1.8035	5.25
187	Shoulder		5.75	2.2637	1.75	0.6889	3.917	1.5421	7.75
	Side		7.00	2.7559	2.00	0.7874	4.051	1.5948	8.50
	Hip		6.25	2.4606	2.25	0.8858	4.545	1.7893	7.50
	Belly		4.875	1.9192	2.00	0.7874	3.574	1.4070	4.00
188	Shoulder		4.875	1.9192	1.50	0.5905	3.380	1.3307	6.50
	Side		5.375	2.1161	1.25	0.4921	3.709	1.4602	7.375
	Hip		5.875	2.3129	1.75	0.6889	4.071	1.6027	7.50
	Belly		5.25	2.0669	2.25	0.8858	3.744	1.4740	5.50
189	Shoulder		5.50	2.1653	2.25	0.8858	3.831	1.5082	4.00
	Side		6.00	2.3622	3.00	1.1811	4.378	1.7236	4.125
	Hip		6.00	2.3622	2.50	0.9842	4.264	1.6787	4.125
	Belly		5.00	1.9685	2.625	1.0334	3.923	1.5444	2.00
190	Shoulder		5.875	2.3129	2.50	0.9842	4.104	1.6157	4.50
	Side		6.50	2.5590	3.00	1.1811	4.321	1.7011	4.125
	Hip		6.375	2.5098	1.875	0.7381	4.601	1.8114	4.75
	Belly		6.50	2.5590	2.75	1.0826	4.385	1.7263	4.00
192	.....		6.25	2.4606	1.75	0.6889	4.179	1.6452	13.50
	Average		5.961	2.3468	2.261	0.8901	4.196	1.6519	5.156
	LEICESTER.								
113	Leicester		5.75	2.2637	2.50	0.9842	3.879	1.5271	9.75
	LINCOLN.								
58	Shoulder		5.833	2.2964	2.66	1.0472	4.201	1.6539	3.75
	Side		6.330	2.4921	3.00	1.1811	3.970	1.5629	3.00
	Hip		6.33	2.4921	2.66	1.0472	4.567	1.7980	3.00
60	Shoulder		5.833	2.2964	2.33	0.9173	4.478	1.7629	3.50
	Side		7.33	2.8858	2.33	0.9173	4.488	1.7669	3.75
	Hip		6.00	2.3622	2.66	1.0472	4.318	1.6999	3.25
	Belly		5.66	2.2283	2.00	0.7874	3.887	1.5303	2.25
61	Shoulder		5.33	2.0984	2.00	0.7874	3.909	1.5389	6.25
	Side		5.33	2.0984	2.00	0.7874	3.611	1.4216	6.75
	Hip		5.66	2.2283	2.66	1.0472	4.124	1.6236	6.75
	Belly		5.33	2.0984	2.166	0.8527	3.581	1.4198	3.625
164	Shoulder		5.00	1.9685	1.875	0.7380	3.62	1.4251	6.50
	Side		5.375	2.1161	1.25	0.4921	3.548	1.3968	7.00
	Hip		5.00	1.9685	1.50	0.5905	3.522	1.3866	5.625
	Belly		3.875	1.5255	1.375	0.5413	2.964	1.1669	3.50
165	Shoulder		8.75	3.4448	1.50	0.5905	3.178	1.2511	5.00
	Side		4.625	1.8208	1.875	0.7381	3.178	1.2511	6.00
	Hip		4.75	1.8700	1.875	0.7381	3.319	1.3066	5.00
	Belly		4.50	1.7716	1.50	0.5905	2.101	1.2208	2.75
166	Shoulder		5.75	2.2637	2.125	0.8366	3.837	1.5106	2.625
	Side		5.00	1.9685	2.125	0.8366	3.616	1.4236	2.50
	Hip		6.00	2.3622	2.375	0.9351	4.276	1.6834	2.50
	Belly		4.25	1.6732	2.25	0.8858	3.216	1.2661	2.00
167	Shoulder		5.00	1.9685	2.50	0.9842	3.528	1.3889	3.125
	Side		4.875	1.9192	2.375	0.9350	3.646	1.4354	2.625
	Hip		5.25	2.0669	2.125	0.8366	3.907	1.5381	2.875
	Belly		4.50	1.7716	2.50	0.9842	3.513	1.3830	1.625
168	Shoulder		4.50	1.7716	1.625	0.6397	3.410	1.3425	2.875
	Side		4.875	1.9192	2.375	0.9350	3.545	1.3956	3.25
	Hip		4.75	1.8700	2.50	0.9842	3.638	1.4322	2.875
	Belly		4.25	1.6732	2.00	0.7874	3.530	1.3897	1.75
169	Shoulder		5.00	1.9685	1.50	0.5905	3.824	1.5055	2.625
	Side		5.00	1.9685	2.375	0.9350	3.853	1.5169	2.75
	Hip		5.375	2.1161	2.00	0.7874	3.917	1.5421	2.875
	Belly		5.25	2.0669	2.50	0.9842	3.695	1.4547	1.625
191	.....		4.25	1.6732	1.25	0.4921	2.933	1.1547	8.50
	Average		5.298	2.0858	2.103	0.8279	3.707	1.4594	3.785
	SOUTHDOWN.								
62	Shoulder	12	4.66	1.8346	2.00	0.7874	3.063	1.2059	1.375
	Side	12	4.66	1.8346	2.00	0.7874	3.274	1.2889	1.50
	Hip	.....	4.66	1.8346	2.33	0.9173	3.186	1.2543	1.00
	Belly	.....	4.33	1.7047	2.00	0.7874	3.024	1.1905	.....
63	Shoulder	14	4.00	1.5748	2.00	0.7874	2.946	1.1598	1.25
	Side	14	4.66	1.8346	1.33	0.5236	3.013	1.1862	.....
	Hip	.....	5.233	2.0602	1.66	0.6535	3.235	1.2736	.....
	Belly	.....	4.00	1.5748	2.00	0.7874	2.912	1.1464	0.75
91	Shoulder	12	4.25	1.6732	1.75	0.6889	3.193	1.2570	1.50
	Side	.....	4.66	1.8346	2.00	0.7874	3.128	1.2314	1.1875
	Hip	12	4.66	1.8346	2.00	0.7874	3.316	1.3055	1.5625
	Belly	14	3.33	1.3110	1.66	0.6535	2.77	1.0905	0.875
92	Shoulder	14	6.33	2.4921	2.33	0.9173	3.607	1.4200	1.375
	Side	.....	4.75	1.8700	1.50	0.5905	2.705	1.0649	1.00
	Hip	12	5.33	2.0984	1.66	0.6535	2.965	1.1673	1.375
	Belly	16	4.66	1.8346	2.00	0.7874	2.872	1.1307	0.875
93	Shoulder	12	4.33	1.7047	2.00	0.7874	2.94	1.1574	1.1875
	Side	14	4.00	1.5748	1.66	0.6535	2.947	1.1602	1.00
	Hip	12	5.00	1.9685	2.33	0.9173	3.111	1.2248	1.125
	Belly	12	4.33	1.7047	2.00	0.7874	2.788	1.0976	.....
94	Shoulder	14	4.66	1.8346	2.00	0.7874	2.743	1.0799	1.25
	Side	14	4.00	1.5748	1.66	0.6535	2.94	1.1574	1.125
	Hip	.....	5.66	2.2283	2.00	0.7874	3.501	1.3783	2.00
	Belly	.....	4.33	1.7047	2.00	0.7874	2.918	1.1488	0.875
95	Shoulder	14	4.00	1.5748	1.66	0.6535	2.496	0.9826	1.50
	Side	14	3.33	1.3110	1.66	0.6535	2.496	0.9826	1.4375
	Hip	12	4.66	1.8346	1.66	0.6535	2.777	1.0933	1.75
	Belly	.....	4.00	1.5748	1.66	0.6535	2.807	1.1051	1.5625
132	.....	.....	4.00	1.5748	1.75	0.6889	2.815	1.1082	1.125
133	.....	.....	3.875	1.5255	1.125	0.4429	2.823	1.1114	1.50
134	.....	.....	4.75	1.8700	1.375	0.5413	3.233	1.2728	1.625
135	.....	.....	4.25	1.6732	0.875	0.3444	2.906	1.1795	1.375
136	.....	.....	3.875	1.5255	1.50	0.5905	2.696	1.0614	1.00
137	.....	.....	5.50	2.1653	2.00	0.7874	3.209	1.2625	1.50
138	.....	.....	3.75	1.4763	1.25	0.4921	2.580	1.0157	1.1875

TABLE III.—*Individual extremes and averages of fineness of each sample*—Continued.

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	SOUTHDOWN—cont'd.								
139	.....	.....	4.75	1.8700	1.625	0.6397	2.745	1.0807	3.00
140	.....	.....	4.25	1.6732	1.75	0.6889	2.449	0.9641	1.75
141	.....	.....	4.75	1.8700	1.50	0.5905	2.881	1.1145	1.125
142	.....	.....	4.00	1.5748	1.625	0.6397	2.662	1.0508	1.00
143	.....	.....	5.00	1.9685	1.75	0.6889	3.020	1.1889	1.25
144	.....	.....	5.00	1.9685	2.00	0.7874	3.005	1.1830	1.75
145	.....	.....	4.25	1.6732	2.00	0.7874	3.084	1.2141	1.50
146	.....	.....	4.50	1.7716	2.00	0.7874	2.849	1.1216	1.375
147	.....	.....	4.00	1.5748	1.375	0.5413	2.693	1.0601	1.625
148	.....	.....	4.875	1.9192	1.25	0.4921	2.911	1.1456	1.625
149	.....	.....	4.50	1.7716	1.375	0.5413	2.667	1.0499	2.00
	Average	13.053	4.486	1.7661	1.752	0.6901	2.936	1.1559	1.351
	HAMPSHIRE.								
162	Hampshire	.....	5.375	2.1161	1.625	0.6397	3.399	1.3027	2.25
163	....do	.....	5.625	2.2145	1.875	0.7381	3.287	1.2940	2.125
	Average	.....	5.50	2.1654	1.75	0.6889	3.298	1.2984	2.188
	OXFORD.								
64	Shoulder	.....	6.00	2.3622	3.33	1.3110	4.542	1.7891	3.00
	Side	.....	6.33	2.4921	2.33	0.9173	4.307	1.7177	2.50
	Hip	.....	6.66	2.6220	3.33	1.3110	5.068	1.9834	2.75
	Belly	.....	6.00	2.3622	2.66	1.0472	4.24	1.6692	1.75
65	Shoulder	.....	5.66	2.2283	2.00	0.7874	3.042	1.5619	1.125
	Side	.....	6.66	2.6220	2.66	1.0472	3.915	1.5413	2.00
	Hip	.....	6.66	2.6220	2.66	1.0472	4.097	1.5775	1.75
	Belly	.....	6.66	2.6220	2.66	1.0472	3.924	1.4267	2.50
66	Shoulder	.....	5.33	2.0984	2.00	0.7874	3.667	1.4436	2.50
	Side	.....	6.00	2.3622	2.66	1.0472	4.015	1.5802	3.625
	Hip	.....	6.00	2.3622	2.00	0.7874	3.957	1.5578	3.75
	Belly	.....	5.33	2.0984	2.33	0.9173	3.60	1.4173	2.25
67	Shoulder	.....	7.33	2.8858	2.66	1.0472	4.787	1.8846	3.00
	Side	.....	7.66	3.0157	3.33	1.3110	5.129	2.0192	2.75
	Hip	.....	7.00	2.7559	3.166	1.2464	4.714	1.8559	2.75
	Belly	.....	7.66	3.0157	3.33	1.3110	4.931	1.9413	3.00
107	.....	.....	5.75	2.2637	2.00	0.7874	3.743	1.4736	.....
108	.....	.....	5.25	2.0669	2.00	0.7874	3.628	1.4283	.....
150	.....	.....	7.125	2.8051	2.75	1.0826	4.806	1.8921	2.50
151	.....	.....	7.625	3.0019	2.00	0.7874	3.924	1.5444	2.00
152	.....	.....	6.875	2.7066	2.375	0.9350	4.040	1.5929	2.75
153	.....	.....	5.75	2.2637	1.875	0.7381	3.704	1.4582	2.75
154	.....	.....	7.00	2.7559	3.125	1.2303	4.726	1.8582	2.875
155	.....	.....	6.00	2.3622	1.50	0.5905	3.356	1.3212	3.00
156	.....	.....	6.25	2.4606	3.625	1.4271	4.539	1.7870	2.75
157	.....	.....	5.00	1.9685	2.00	0.7874	3.760	1.4826	2.75
158	.....	.....	5.875	2.3129	3.125	1.2303	4.516	1.7755	2.75
159	.....	.....	5.50	2.1653	1.875	0.7381	3.797	1.4948	3.00
160	.....	.....	6.25	2.4606	2.125	0.8366	4.161	1.6381	2.50
161	.....	.....	5.125	2.0177	1.25	0.4921	3.452	1.3590	3.50
	Average	.....	6.255	2.4625	2.496	0.9826	4.365	1.7185	2.647
	MERINO.								
8	Merino	.....	3.875	1.5255	1.75	0.6889	2.542	1.0007	.....
10	....do	16	2.50	0.9842	1.25	0.4921	1.936	0.7620	2.625
11	....do	22	3.375	1.3287	1.50	0.5905	2.050	0.8070	3.00
12	....do	20	3.375	1.3287	1.375	0.5413	2.125	0.8366	3.25
13	....do	20	2.50	0.9842	1.25	0.4921	1.820	0.7165	3.00
21	....do	20	2.50	0.9842	1.00	0.3937	1.952	0.7685	2.50
22	....do		3.00	1.1811	1.50	0.5905	2.031	0.7996	2.75
23	....do	26	2.375	0.9350	1.125	0.4429	1.820	0.7165	2.25
30	Neck, top of wrinkle	16	4.25	1.6732	2.00	0.7874	2.822	1.1110	1.25
	Neck, between wrinkle	16	3.50	1.3779	1.75	0.6889	2.466	0.9703	1.625
	Shoulder	16	2.75	1.0826	1.75	0.6889	2.252	0.8866	1.50
	Side	16	3.00	1.1811	1.50	0.5905	2.143	0.8436	1.3125
	Hip	14	3.25	1.2795	1.75	0.6889	2.294	0.9031	1.75
	Belly	20	3.25	1.2795	1.50	0.5905	2.202	0.8669	1.375
41	Neck	16	3.00	1.1811	1.50	0.5905	2.088	0.8220	1.75
	Side	16	3.00	1.1811	1.50	0.5905	1.977	0.7783	1.50
	Hip	16	3.00	1.1811	1.50	0.5905	2.141	0.8429	1.375
	Belly	14	4.00	1.5748	1.25	0.4921	1.893	0.7846	1.875
45	Neck, top of wrinkle	16	4.00	1.5748	1.50	0.5905	2.296	0.9039	1.1875
	Neck, between wrinkle	16	3.25	1.2795	1.25	0.4921	2.271	0.8940	1.125
	Side	20	3.75	1.4763	1.25	0.4921	2.294	0.9031	1.375
	Hip	12	4.25	1.6732	1.50	0.5905	2.709	1.1019	1.0625
	Belly	16	3.00	1.1811	1.25	0.4921	2.173	0.8555	1.25
46	Shoulder	20	3.50	1.3779	1.25	0.4921	2.116	0.8330	1.375
	Side	20	3.75	1.4763	1.25	0.4921	1.991	0.7838	1.25
	Hip	20	3.25	1.2795	1.25	0.4921	2.091	0.8232	1.50
	Belly	20	3.00	1.1811	1.25	0.4921	2.094	0.8244	1.4375
47	Shoulder	20	3.00	1.1811	1.25	0.4921	2.166	0.8527	1.50
	Side	20	3.25	1.2795	1.75	0.6889	2.163	0.8515	1.1875
	Hip	20	3.50	1.3779	1.50	0.5905	2.291	0.9019	1.375
	Belly	20	3.50	1.3779	1.75	0.6889	2.361	0.9295	1.4375
48	Shoulder, top of wrinkle	16	4.50	1.7716	1.25	0.4921	2.374	0.9346	1.125
	Shoulder, between wrinkle	16	3.50	1.3779	1.50	0.5905	2.302	0.9062	1.50

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	MERINO—continued.								
48	Side	16	3.75	1.4763	1.00	0.3937	2.213	0.8712	1.875
	Hip	16	3.75	1.4763	1.50	0.5905	2.391	0.9413	1.75
	Belly	16	4.00	1.5748	1.50	0.5905	2.369	0.9326	1.50
51	Shoulder	20	4.50	1.7716	1.50	0.5905	2.219	0.8736	1.75
	Side	20	3.50	1.3779	1.50	0.5905	2.213	0.8712	1.4375
	Hip	16	4.00	1.5748	1.25	0.4921	2.141	0.8429	1.50
	Belly	16	3.25	1.2795	1.25	0.4921	2.205	0.8681	1.625
52	Shoulder	22	2.50	0.9842	1.25	0.4921	1.733	0.6823	1.5625
	Side	22	2.75	1.0826	1.00	0.3937	1.710	0.6755	1.25
	Hip	20	2.50	0.9842	1.50	0.5905	1.869	0.7358	1.375
	Belly	20	3.25	1.2795	1.25	0.4921	1.808	0.7118	1.1875
53	Shoulder	22	2.50	0.9842	1.50	0.5905	1.896	0.7464	1.4375
	Shoulder, top of wrinkle	.....	4.00	1.5748	1.50	0.5905	2.136	0.9118	1.25
	Shoulder, between wrinkle	20	3.00	1.1811	1.25	0.4921	1.850	0.7283	1.00
	Side	22	2.50	0.9842	1.25	0.4921	1.816	0.7149	1.375
	Hip	20	2.25	0.8858	1.00	0.3937	1.607	0.6681	1.3125
	Hip, top of wrinkle	14	5.00	1.9685	1.25	0.4921	2.608	1.0267	1.1875
	Hip, between wrinkle	16	3.50	1.3779	1.25	0.4921	2.027	0.7980	0.875
	Belly A	20	2.50	0.984	1.50	0.5905	1.830	0.7228	1.25
	Belly B	20	3.00	1.1811	1.50	0.5905	2.013	0.7925	1.00
54	Shoulder, top of wrinkle	14	4.00	1.5748	1.75	0.6889	2.514	0.9897	0.875
	Shoulder, between wrinkle	.....	3.00	1.1811	1.25	0.4921	2.008	0.7905	1.0625
	Hip, top of wrinkle	.....	5.00	1.9685	1.75	0.6889	2.902	1.1425	0.875
	Hip, between wrinkle	14	3.50	1.3779	1.25	0.4921	2.298	0.9082	1.00
	Belly	.....	3.50	1.3779	1.25	0.4921	2.108	0.8299	1.00
55	Shoulder, top of wrinkle	14	4.00	1.5748	1.00	0.3937	2.455	0.9667	1.1875
	Shoulder, between wrinkle	20	3.00	1.1811	1.25	0.4921	2.008	0.7905	1.0625
	Side	20	2.75	1.0826	1.25	0.4921	1.884	0.7326	1.0625
	Hip, top of wrinkle	14	4.25	1.6732	1.50	0.5905	2.291	0.9019	1.125
	Hip, between wrinkle	20	3.00	1.1811	1.25	0.4921	1.908	0.7511	1.125
	Belly	20	3.25	1.2795	1.50	0.5905	2.038	0.8023	1.1875
56	Neck, top of wrinkle	16	3.50	1.3779	1.25	0.4921	2.494	0.9818	1.1875
	Shoulder, between wrinkle	20	3.00	1.1811	1.00	0.3937	2.013	0.7925	1.125
	Side	20	3.00	1.1811	1.25	0.4921	2.152	0.8472	0.8125
	Hip, top of wrinkle	16	4.00	1.5748	1.50	0.5905	2.362	0.9303	1.00
	Hip, between wrinkle	20	4.00	1.5748	1.00	0.3937	2.255	0.8877	0.75
	Belly	20	2.75	1.0826	1.50	0.5905	2.049	0.8067	0.9375
57	Shoulder, top of wrinkle	.....	4.75	1.8700	1.50	0.5905	2.405	0.9468	0.875
	Shoulder, between wrinkle	20	3.50	1.3779	1.25	0.4921	2.149	0.8461	1.0625
	Hip	20	3.25	1.2795	1.25	0.4921	2.141	0.8429	0.875
	Belly	20	3.00	1.1811	1.25	0.4921	2.158	0.8496	0.875
58	Shoulder, top of wrinkle	18	4.00	1.5748	1.50	0.5905	2.216	0.8724	1.125
	Shoulder, between wrinkle	20	3.00	1.1811	1.50	0.5905	2.030	0.7992	1.25
	Hip, top of wrinkle	18	5.00	1.9685	1.75	0.6889	2.635	1.0373	1.00
	Hip, between wrinkle	20	3.50	1.3779	1.25	0.4921	2.097	0.8251	1.125
	Belly	20	3.00	1.1811	1.00	0.3937	2.059	0.8103	1.125
68	Shoulder	20	3.83	1.5078	1.66	0.6535	2.272	0.8944	1.375
	Side	20	4.66	1.8346	1.66	0.6535	2.472	0.9732	1.375
	Hip	16	4.66	1.8346	1.66	0.6535	2.762	1.0874	1.375
	Belly	20	3.66	1.4409	1.66	0.6535	2.428	0.9559	1.00
	Shoulder	20	3.33	1.3110	1.33	0.5236	2.246	0.8842	1.375
	Side	20	4.00	1.5748	1.33	0.5236	2.427	0.9555	1.375
	Hip	16	5.66	2.2283	1.66	0.6535	2.530	0.9959	1.625
	Belly	20	3.60	1.1811	1.66	0.6535	2.363	0.9303	1.25
70	Shoulder	20	3.33	1.3110	1.33	0.5236	2.119	0.8342	1.25
	Side	20	3.33	1.3110	1.33	0.5236	2.099	0.8263	1.25
	Hip	22	3.50	1.3779	1.375	0.5413	2.115	0.8326	1.125
	Belly	20	4.00	1.5748	1.50	0.5905	2.431	0.9570	1.24
71	Shoulder	20	3.50	1.3779	1.75	0.6889	2.310	0.9095	1.50
	Side	20	3.00	1.1811	1.50	0.5905	2.128	0.8377	1.25
	Hip	20	3.33	1.3779	1.50	0.5905	2.268	0.8929	1.125
	Belly	18	3.50	1.3779	1.75	0.6889	2.540	0.9331	1.375
72	Shoulder	20	2.75	1.0826	1.50	0.5905	2.160	0.8507	1.25
	Side	20	2.75	1.0826	1.25	0.4921	2.068	0.8141	1.125
	Hip	16	5.00	1.9685	1.25	0.4921	2.27	0.8936	1.00
	Belly	20	3.25	1.2795	1.25	0.4921	2.47	0.9724	1.125
73	Shoulder	20	3.50	1.3779	1.50	0.5905	2.196	0.8646	1.375
	Side	20	3.00	1.1811	1.50	0.5905	2.196	0.8646	1.25
	Hip	16	4.25	1.6732	1.25	0.4921	2.196	0.8646	1.25
	Belly	20	4.25	1.6732	1.25	0.4921	2.34	0.9212	1.50
74	Shoulder	18	4.00	1.5748	1.50	0.5905	2.487	0.9791	1.375
	Side	18	3.50	1.3779	1.50	0.5905	2.288	0.9008	1.50
	Hip	14	6.00	2.3622	1.50	0.5905	2.473	0.9734	1.50
	Belly	24	4.00	1.5748	1.50	0.5905	2.290	0.9409	1.25
75	Shoulder	16	3.50	1.3779	1.50	0.5905	2.307	0.9111	1.50
	Side	20	3.75	1.4763	1.50	0.5905	2.263	0.8909	1.50
	Hip	18	3.75	1.4763	1.50	0.5905	2.455	0.9665	1.375
	Belly	20	4.00	1.5748	1.25	0.4921	2.423	0.9539	1.375
76	Shoulder	18	3.875	1.5255	1.50	0.5905	2.245	0.8838	1.375

TABLE III.—*Individual extremes and averages of fineness of each sample*—Continued.

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	MERINO—continued.								
76	Side	20	2.75	1.0826	1.50	0.5905	2.066	0.8133	1.125
	Hip	16	4.00	1.5748	1.50	0.5905	2.216	0.8724	1.50
	Belly	20	4.00	1.5748	1.875	0.7381	2.451	0.9649	1.125
77	Shoulder	20	2.50	0.9842	1.50	0.5905	1.928	0.7590	1.125
	Side	20	3.00	1.1811	1.25	0.4921	1.921	0.7562	1.375
	Hip	20	4.25	1.6732	1.25	0.4921	2.20	0.8661	1.00
	Belly	20	3.50	1.3779	1.25	0.4921	1.963	0.7728	1.50
78	Shoulder	20	3.00	1.1811	1.50	0.5905	2.170	0.8543	1.375
	Side	20	4.00	1.5748	1.25	0.4921	2.191	0.8625	1.125
	Hip	16	3.50	1.3779	1.75	0.6889	2.366	0.9314	1.375
	Belly	20	3.00	1.1811	1.25	0.4921	2.086	0.8212	1.375
79	Shoulder	20	4.25	1.6732	1.25	0.4921	2.030	0.7992	1.50
	Side	20	3.50	1.3779	1.50	0.5905	2.023	0.7964	1.50
	Hip, top of wrinkle	14	4.50	1.7716	1.75	0.6889	2.643	1.0405	1.25
	Hip, betw. wrinkle	16	4.00	1.5748	1.50	0.5905	2.357	0.9279	1.375
	Belly	20	3.00	1.1811	1.50	0.5905	2.155	0.8484	1.50
80	Shoulder	20	2.25	0.8858	1.25	0.4921	1.770	0.6968	1.50
	Side	22	3.50	1.3779	1.25	0.4921	1.753	0.6901	1.625
	Hip	22	2.75	1.0826	1.25	0.4921	1.873	0.7374	1.375
	Belly	20	3.00	1.1811	1.50	0.5905	2.126	0.8370	1.375
81	Shoulder	20	3.00	1.1811	1.50	0.5905	2.133	0.8397	1.625
	Side	16	3.50	1.3779	1.50	0.5905	2.146	0.8488	1.625
	Hip	16	3.50	1.3779	1.25	0.4921	2.316	0.9118	1.375
	Belly	20	3.00	1.1811	1.50	0.5905	2.230	0.8779	1.50
82	Shoulder	20	3.25	1.2795	1.50	0.5905	2.083	0.8200	1.50
	Side	20	3.00	1.1811	1.50	0.5905	2.296	0.9039	1.25
	Hip	20	3.50	1.3779	1.25	0.4921	2.22	0.8740	1.375
	Belly	20	3.50	1.3779	2.00	0.7874	2.513	0.9893	1.375
83	Shoulder	20	3.50	1.3779	1.50	0.5905	2.093	0.8240	1.25
	Side	20	4.00	1.5748	1.50	0.5905	2.123	0.8358	1.375
	Hip	16	5.25	2.0669	1.00	0.3937	2.383	0.9381	1.375
	Belly	20	4.75	1.8700	1.25	0.4921	2.500	0.9842	1.29
84	Shoulder, 17 months	22	3.75	1.4763	1.25	0.4921	2.035	0.8011	3.125
	Shoulder	22	3.50	1.3779	1.50	0.5905	1.953	0.7688	1.375
	Side	22	3.50	1.3779	1.25	0.4921	1.970	0.7755	1.00
	Hip	20	4.00	1.5748	1.50	0.5905	2.201	0.8665	1.00
85	Shoulder	22	2.75	1.0826	1.25	0.4921	1.793	0.7059	1.375
	Side	22	2.50	0.9842	1.25	0.4921	1.810	0.7125	1.375
	Hip	20	3.00	1.1811	1.00	0.3937	1.838	0.7236	1.25
	Belly	20	3.75	1.4763	1.00	0.3937	1.886	0.7425	1.375
86	Shoulder	22	3.50	1.3779	1.00	0.3937	1.851	0.7287	1.375
	Side	22	3.50	1.3779	1.50	0.5905	2.103	0.8279	1.25
	Hip	22	3.50	1.3779	1.50	0.5905	2.083	0.8200	1.25
	Belly	20	3.00	1.1811	1.50	0.5905	2.176	0.8566	1.375
87	Shoulder	22	3.00	1.1811	1.50	0.5905	2.056	0.8094	1.50
	Side	22	3.25	1.2795	1.50	0.5905	2.201	0.8665	1.1875
	Hip	22	3.00	1.1811	1.50	0.5905	2.173	0.8555	1.25
	Belly	20	2.75	1.0826	1.50	0.5905	1.928	0.7590	1.50
88	Shoulder	20	3.00	1.1811	1.25	0.4921	1.921	0.7562	1.125
	Side	20	3.25	1.2795	1.25	0.4921	1.976	0.7779	1.25
	Hip	20	2.75	1.0826	1.00	0.3937	1.980	0.7795	1.25
	Belly	20	4.75	1.8700	1.50	0.5905	2.233	0.8791	1.25
89	Shoulder	20	3.25	1.2795	1.25	0.4921	2.004	0.7889	1.4375
	Side	20	4.00	1.5748	1.50	0.5905	2.026	0.7976	1.25
	Hip	20	3.25	1.2795	1.25	0.4921	1.956	0.7700	1.25
	Belly	20	3.00	1.1811	1.25	0.4921	2.009	0.7909	1.25
90	Shoulder	20	4.00	1.5748	1.25	0.4921	2.200	0.8661	1.25
	Side	20	3.50	1.3779	1.25	0.4921	2.263	0.8909	1.125
	Hip	20	3.00	1.1811	1.50	0.5905	2.193	0.8633	1.1875
	Belly	20	3.75	1.4763	1.25	0.4921	2.346	0.9224	1.125
96		20	2.00	0.7874	1.00	0.3937	1.472	0.5795	2.00
97		30	2.50	0.9842	1.00	0.3937	1.507	0.5933	2.125
98		30	2.50	0.9842	1.00	0.3937	1.687	0.6641	1.875
99		26	2.25	0.8858	1.00	0.3937	1.704	0.6708	2.0625
99a		20	2.25	0.8858	0.75	0.2972	1.573	0.6192	2.125
100		30	2.25	0.8858	1.00	0.3937	1.523	0.5996	1.75
101		30	2.00	0.7874	1.00	0.3937	1.509	0.5940	2.125
102		30	2.50	0.9842	1.00	0.3937	1.599	0.6295	1.375
103		25	3.50	1.3779	1.25	0.4921	1.891	0.7444	2.375
104		25	3.00	1.1811	1.25	0.4921	1.830	0.7204	1.625
104a		25	2.75	1.0826	1.00	0.3937	1.758	0.6921	2.125
192		28	2.00	0.7874	1.125	0.4429	1.555	0.6122	1.375
193		26	2.50	0.9842	1.125	0.4429	1.619	0.6374	1.625
236	S. Archer's wools	22	3.375	1.3287	1.25	0.4921	2.030	0.7992	2.375
347	....do	16	3.375	1.3287	0.75	0.2953	1.883	0.7429	3.125
348	....do	16	3.25	1.2795	1.25	0.4921	1.971	0.7759	3.125
349	S. Archer's top of wrinkle	14	5.00	1.9685	1.625	0.6397	2.562	1.0086	2.50
	MERINO—continued.								
	S. Archer's between wrinkle	20	3.25	1.2795	1.50	0.5905	2.094	0.8244	3.25
350	S. Archer's wools	20	3.125	1.2303	1.75	0.6889	2.224	0.8755	2.50
351	....do	20	2.375	0.9350	1.25	0.4921	1.655	0.6515	3.00
352	....do	20	3.25	1.2795	1.25	0.4921	1.848	0.7275	2.75
353	....do	20	2.875	1.1318	1.25	0.4921	1.867	0.7350	2.25
354	....do	22	3.25	1.2795	1.125	0.4429	1.856	0.7307	2.75
355	....do	20	3.375	1.3287	1.50	0.5905	2.163	0.8515	2.75
356	....do	20	4.50	1.7716	1.375	0.5413	2.185	0.8641	2.50
357	....do	20	3.50	1.3779	1.125	0.4429	1.890	0.7440	2.50
358	....do	20	3.25	1.2795	1.25	0.4921	2.033	0.8003	2.25
359	....do	20	2.75	1.0826	1.25	0.4921	1.874	0.7377	2.875
360	....do	20	3.25	1.2795	1.50	0.5905	2.263	0.8909	2.75
361	....do	20	2.875	1.1318	1.125	0.4429	2.215	0.8720	2.50
	Average	19.595	3.406	1.3409	1.371	0.5397	2.127	0.8373	1.502
	SPANISH MERINO.								
1	Spanish merino	25	3.00	1.1811	1.25	0.4921	1.851	0.7287	1.875
5	....do	20	3.00	1.1811	1.25	0.4921	1.931	0.7602	1.8125
105	....do	.....	2.50	0.9842	1.25	0.4921	1.714	0.6748	2.625
106	....do	.....	3.00	1.1811	1.25	0.4921	1.935	0.7618	2.125
115	....do	.....	4.00	1.5748	1.50	0.5905	2.350	0.9074	3.875
116	....do	16	3.25	1.2795	1.25	0.4921	2.186	0.8606	3.50
117	....do	.....	3.00	1.1811	1.25	0.4921	1.784	0.7223	5.00
118	....do	16	4.50	1.7716	1.50	0.5905	2.250	0.8893	5.00
119	....do	20	2.50	0.9842	1.25	0.4921	1.827	0.7192	2.50
120	....do	22	4.25	1.6732	1.25	0.4921	1.969	0.7751	2.75
121	....do	.....	3.125	1.2303	1.25	0.4921	2.050	0.8070	.....
121a	....do	20	4.25	1.6732	1.25	0.4921	2.088	0.8220	.....
122	....do	.....	4.00	1.5748	1.375	0.5413	2.194	0.8637	.....
124	....do	20	3.75	1.4763	1.25	0.4921	2.066	0.8133	3.125
	Average	20.50	3.438	1.3535	1.295	0.5098	2.014	0.7929	3.108
	SAXON MERINO.								
2	Saxon merino	25	2.375	0.9350	1.00	0.3937	1.723	0.6783	2.25
	SILESIAN MERINO.								
3	Silesian merino	25	3.00	1.1811	1.25	0.4921	1.814	0.7141	1.25
4	.....	25	3.50	1.3779	1.25	0.4921	1.897	0.7468	1.125
	Average	25	3.25	1.2795	1.25	0.4921	1.856	0.7307	1.1875
	AUSTRALIAN MERINO.								
6	Australian merino	.....	2.875	1.1318	1.25	0.4921	1.820	0.7165	.....
7	....do	.....	3.00	1.1811	1.50	0.5905	1.935	0.7618	.....
10	....do	25	2.75	1.0828	1.00	0.3937	1.831	0.7208	2.00
	Average	25	2.875	1.1318	1.25	0.4921	1.862	0.7330	2.00
	CROSS BREEDS.								
111	Cotswold and Leicester	.....	6.25	2.4606	2.00	0.7874	3.370	1.3267	1.150
19	Cotswold and Southdown	.....	4.00	1.5748	2.00	0.7874	2.952	1.1622	2.625
179	One-half Cotswold and one-half merino	.....	4.00	1.5748	1.25	0.4921	2.336	0.9196	4.75
15	....do	20	2.375	0.9350	1.25	0.4921	1.708	0.6724	3.00
20	Cotswold and merino	20	3.50	1.3779	1.375	0.5413	2.089	0.8224	3.25
24	....do	18	3.75	1.4763	1.50	0.5905	2.331	0.9177	2.75
14	Cotswold and Australian merino	20	2.50	0.9842	1.375	0.5413	1.813	0.7137	3.25
126	Seven-eighths Leicester and one-eighth merino	.....	5.00	1.9685	1.50	0.5905	2.629	1.0346	4.625
128	Seven-eighths Spanish and one-eighth Australian	.....	3.25	1.2795	1.00	0.3937	2.101	0.8271	3.375
	Average	18	3.847	1.5145	1.472	0.5795	2.370	0.9330	4.347

MISCELLANEOUS.

	CANADA.								
199	Cotswold	.....	5.00	2.1652	2.50	0.9842	3.922	1.5440	8.50
201	....do	.....	6.375	2.5098	1.25	0.4921	3.765	1.4822	5.00
235	....do	.....	4.00	1.5748	1.75	0.6889	2.914	1.1472	6.00
	Average	.....	5.125	2.0177	1.833	0.7216	3.534	1.3913	6.50
200	Oxford	.....	4.875	2.1653	1.875	0.7381	3.559	1.3981	2.00
	AUSTRALIAN WOOLS.								
227	Lincoln	.....	6.25	2.4606	1.375	0.5413	4.021	1.5830	.....
228	....do	.....	4.50	1.7716	1.625	0.6397	2.996	1.1795	.....
229	....do	.....	4.75	1.8700	1.75	0.6889	3.531	1.3901	.....
230	....do	.....	4.875	1.9192	1.50	0.5905	3.081	1.2129	4.75
231	....do	.....	4.50	1.7716	1.50	0.5905	3.398	1.3377	5.00
232	....do	.....	5.625	2.2145	1.875	0.7381	3.685	1.4507	9.50
	Average	.....	5.083	2.0011	1.604	0.6314	3.452	1.3590	6.417

TABLE III.—*Individual extremes and averages of fineness of each sample*—Continued.

MISCELLANEOUS—Continued.

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	AUSTRALIAN WOOLS—continued.								
213	Merino	25	2.50	0.9842	1.375	0.5413	1.941	0.7641	2.875
214	....do	22	3.50	1.3779	1.50	0.5905	2.227	0.8767	3.375
215	....do	18	2.50	0.9842	1.125	0.4429	1.712	0.6744	2.25
216	....do	16	2.875	1.1318	1.25	0.4921	1.924	0.7614	3.625
217	....do	16	2.875	1.1318	1.125	0.4429	1.787	0.7035	1.50
218	....do	16	2.875	1.1318	1.25	0.4921	1.838	0.7464	1.00
219	....do	16	2.75	1.0826	1.125	0.4429	1.918	0.7554	2.25
220	....do	14	2.75	1.0826	1.375	0.5413	1.931	0.7605	3.25
221	....do	16	3.125	1.2305	1.50	0.5905	2.319	0.9129	2.25
222	....do	16	2.875	1.1318	1.125	0.4429	1.926	0.7585	1.75
223	....do	20	2.75	1.0826	1.50	0.5905	1.995	0.7618	3.875
224	....do	20	3.00	0.9842	1.25	0.4921	1.710	0.6732	3.375
225	....do	.....	2.50	0.9842	1.375	0.5413	1.961	0.7722	.....
226	....do	.....	2.875	1.1318	0.75	0.2952	1.864	0.7339	.....
233	....do	18	2.75	1.0826	1.25	0.4921	2.027	0.7980	3.875
	Average	17.700	2.767	1.0893	1.258	0.4955	1.951	0.7681	2.942
204	Spanish merino	.....	3.75	1.4763	1.125	0.4429	1.859	0.7296	.....
205	....do	22	2.50	0.9842	1.00	0.3937	1.703	0.6705	1.875
206	....do	.....	6.75	2.6606	2.75	1.0826	4.536	1.7857	.....
207	....do	.....	8.25	3.2480	3.50	1.3779	5.926	1.9767	.....
	Average	22	5.313	2.0917	2.094	0.8244	3.331	1.3122	1.875
208	Silesian merino	.....	1.875	0.7380	1.00	0.3937	1.439	0.5665	1.25
209	....do	25	2.875	1.1318	1.00	0.3937	1.737	0.6838	1.25
210	....do	25	2.125	0.8366	1.25	0.4921	1.688	0.6645	1.125
211	....do	25	2.375	0.9350	1.25	0.4921	1.656	0.6521	1.625
212	....do	26	3.00	1.1811	1.769	0.7007	1.595	0.6279	0.875
	Average	25.25	2.45	0.9645	1.10	0.4330	1.624	0.6393	1.225
234	Leicester and Lincoln.	.....	5.00	1.9685	2.375	0.9350	3.894	1.5094	.....

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	CANADA.								
202	Black-pulled	.....	4.75	1.8700	1.375	0.5413	3.094	1.2181	.....
203	Goat hair	.....	16.25	6.3976	3.30	1.1811	6.813	2.6822	.....
261	Wells & Dickinson.	20	3.00	1.1811	1.00	0.3937	1.897	0.7468	1.125
262	....do	20	4.00	1.5748	1.375	0.5413	2.268	0.8929	1.50
263	....do	20	2.375	0.9350	1.125	0.4429	1.776	0.6992	1.50
264	....do	20	3.00	1.1811	1.25	0.4921	2.227	0.8767	1.50
265	....do	.....	2.875	1.1318	1.00	0.3937	1.984	0.7811	1.50
266	....do	.....	2.75	1.0826	1.375	0.5413	1.997	0.7862	1.50
267	....do	.....	3.375	1.3287	1.125	0.4429	2.214	0.8716	1.75
268	....do	20	2.375	0.9350	1.375	0.5413	1.888	0.7433	1.375
269	....do	.....	2.50	0.9842	1.625	0.6397	1.934	0.7614	.....
270	....do	.....	2.75	1.0826	1.25	0.4921	1.556	0.6144	.....
271	....do	.....	2.00	0.7874	0.875	0.3444	1.601	0.6303	.....
272	....do	.....	2.25	0.8858	1.375	0.5413	1.725	0.6791	.....
273	....do	.....	2.25	0.8858	1.375	0.5413	1.652	0.6515	.....
	Average	20	2.731	1.0751	1.240	0.4881	1.901	0.7484	1.406
2	McDowell	25	2.375	0.9350	1.00	0.3937	1.723	0.6783	2.25
23	....do	26	2.375	0.9350	1.125	0.4429	1.820	0.7165	2.25
96	....do	30	2.00	0.7874	1.00	0.3937	1.472	0.5795	2.00
97	....do	30	2.50	0.9842	1.00	0.3937	1.426	0.5897	2.125
98	....do	30	2.50	0.9842	1.00	0.3937	1.687	0.6641	1.875
99	....do	26	2.25	0.8858	1.00	0.3937	1.704	0.6708	2.0625
99a	....do	30	2.25	0.8858	0.75	0.2952	1.573	0.6192	2.125
100	....do	30	2.25	0.8858	1.00	0.3937	1.731	0.6815	1.75
101	....do	28	2.00	0.7874	1.00	0.3937	1.502	0.5940	2.125
102	....do	30	2.50	0.9842	1.00	0.3937	1.599	0.6295	1.375
103	....do	25	3.50	1.3779	1.25	0.4921	1.891	0.7444	2.375
104	....do	25	3.00	1.1811	1.25	0.4921	1.830	0.7204	1.625
104a	....do	25	2.75	1.0826	1.00	0.3937	1.758	0.6921	2.125
	Average	27.846	2.481	0.9767	1.029	0.4051	1.660	0.6535	2.005

TABLE IV.—*Individual extremes and averages showing influence of breed, sex, and portion of fleece upon fineness.*

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	COTSWOLD.								
	Ram.								
34	Shoulder		6.33	2.4921	2.66	1.0472	4.399	1.7318	6.50
35	....do		6.33	2.4921	2.66	1.0472	4.373	1.7216	4.75
36	....do		6.00	2.3622	2.00	0.7874	4.111	1.6185	7.25
172	....do		4.50	1.7716	1.75	0.6889	3.175	1.2499	4.125
173	....do		5.625	2.2945	2.125	0.8366	3.925	1.5452	3.25
174	....do		5.00	1.9685	2.50	0.9842	3.786	1.4905	4.125
175	....do		5.75	2.2637	1.75	0.6889	4.393	1.7688	2.875
176	....do		5.50	2.1653	2.875	1.1318	4.206	1.6559	4.125
184	....do		6.00	2.3622	2.50	0.9842	4.122	1.6228	6.875
185	....do		5.75	2.2637	1.50	0.5905	4.042	1.5913	8.50
186	....do		6.00	2.3622	3.00	1.1811	4.506	1.7740	6.00
	Average		5.708	2.2472	2.302	0.9062	4.103	1.6153	5.307
34	Side		6.66	2.6220	2.66	1.0472	4.704	1.8519	4.75
35	....do		7.00	2.7559	3.00	1.1811	4.404	1.7338	4 25
36	....do		5.66	2.2283	2.00	0.7874	4.184	1.6472	8.25
172	....do		5.25	2.0669	1.625	0.6397	3.499	1.3775	6.00
173	....do		7.00	2.7559	2.375	0.9350	4.13	1.6259	4.50
174	....do		6.25	2.4606	2.00	0.7874	3.958	1.5582	4.50
175	....do		6.875	2.7066	2.125	0.8366	4.613	1.8161	3.25
176	....do		6.00	2.3622	3.00	1.1811	4.31	1.6968	4.75
184	....do		6.25	2.4606	3.00	1.1811	4.574	1.807	6.25
185	....do		5.50	2.1653	2.375	1.1318	4.161	1.6381	9.125
186	....do		6.50	2.5590	2.25	0.8858	4.273	1.6822	6.75
	Average		6.268	2.4677	2.628	1.0346	4.256	1.6755	5.671
34	Hip		6.33	2.4921	2.00	0.7874	4.428	1.7433	6.00
35	....do		7.00	2.7559	2.66	1.0472	4.303	1.6944	5.25
36	....do		6.00	2.3622	2.00	0.7874	4.184	1.6472	8.00
172	....do		5.50	2.1653	1.75	0.6889	3.388	1.3338	4.50
173	....do		7.75	2.0511	1.75	0.6889	4.785	1.8838	.....
174	....do		5.75	2.2637	2.25	0.8858	4.097	1.6129	4.125
175	....do		6.875	2.7066	2.875	1.1318	5.165	2.0334	2.75
176	....da		6.50	2.5590	2.00	0.7874	4.377	1.7232	4.125
184	....do		6.625	2.6082	2.75	1.0826	4.865	1.9153	8.00
185	....do		6.00	2.3622	2.00	0.7874	4.388	1.7275	7.50
186	....do		7.125	2.8051	1.50	0.5905	4.580	1.8031	9.00
	Average		6.496	2.5574	2.140	0.8425	4.415	1.7381	5.386
34	Belly		6.00	2.3622	3.33	1.3110	4.474	1.7614	3.75
35	....do		6.00	2.3622	3.33	1.3110	4.633	1.8240	5.30
36	....do		6.00	2.3622	2.00	0.7874	4.203	1.6547	5.50
172	....do		4.25	1.6732	1.375	0.5413	3.267	1.2862	3.125
173	....do		5.375	2.1161	2.75	1.0826	3.941	1.5515	2.00
174	....do		4.50	1.7716	1.75	0.6889	3.541	1.3940	2.375
175	....do		6.25	2.4606	3.125	1.2303	4.354	1.7141	2.00
176	....do		5.25	2.0669	1.75	0.6889	4.078	1.6055	2.625
184	....do		5.50	2.1653	3.00	1.1811	4.273	1.6822	3.625
185	....do		5.00	1.9685	2.00	0.7874	3.885	1.5295	6.125
186	....do		6.50	2.5590	3.00	1.1811	4.581	1.8035	5.25
	Average		5.511	2.1696	2.492	0.9811	4.112	1.6188	3.789
	Ewe.								
37	Shoulder		6.33	2.4921	2.00	0.7874	4.237	1.6681	9.50
38	....do		5.66	2.2283	2.00	0.7874	4.305	1.6948	4.00
39	....co		5.66	2.2283	2.66	1.0472	4.088	1.6094	4.50
171	....do		5.25	2.0669	1.625	0.6397	3.721	1.4649	6.00
177	....do		5.75	2.2637	2.00	0.7874	3.631	1.4295	3.125
178	....do		5.75	2.2637	2.25	0.8858	4.183	1.6468	3.125
179	....do		5.875	2.3129	1.875	0.7381	4.25	1.6732	3.875
180	....do		6.50	2.5590	2.375	0.9350	4.350	1.7125	3.873
181	....do		6.25	2.4606	2.375	0.9350	4.253	1.6744	4.25
182	....do		5.625	2.2145	1.750	0.6889	4.136	1.6283	3.875
183	....do		5.625	2.2145	2.50	0.9842	4.275	1.6830	10.25
187	....do		5.75	2.2637	1.75	0.6889	3.917	1.5421	7.75
189	....do		5.50	2.1653	2.25	0.8858	3.831	1.5082	4.00
190	....do		5.875	2.3129	2.50	0.9842	4.104	1.6157	4.50
	Average		5.814	2.2889	2.140	0.8425	4.092	1.6110	5.223
37	Side		6.00	2.3622	2.00	0.7874	4.21	1.6574	9.75
38	....do		6.00	2.3622	2.33	0.9173	4.419	1.7397	4.50
39	....do		6.00	2.3622	2.00	0.7874	4.390	1.7283	4.75
171	....do		5.50	2.1653	1.25	0.4921	3.406	1.3409	6.50
177	....do		5.75	2.2637	2.00	0.7874	4.364	1.7181	4.125
178	....do		5.75	2.2637	2.00	0.7874	3.89	1.5314	3.25
179	....do		6.625	2.6082	1.75	0.6889	4.574	1.8007	4.50
180	....do		6.375	2.5098	1.75	0.6889	4.151	1.6342	4.375
181	....do		6.375	2.5098	2.25	0.8858	4.570	1.7992	4.00
182	....do		5.875	2.3129	1.50	0.5905	4.334	1.7062	3.75
183	....do		5.625	2.2145	2.00	0.7874	4.098	1.6133	10.50
187	....do		7.00	2.7559	2.00	0.7874	4.051	1.5948	8.50
189	....do		6.00	2.3622	3.00	1.1811	4.378	1.7236	4.125
190	....do		6.50	2.5590	3.00	1.1811	4.321	1.7011	4.125
	Average		6.088	2.4007	2.059	0.8106	4.225	1.6633	5.482

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	COTSWOLD—cont'd.								
	Ewe—Continued.								
37	Hip		7.00	2.7559	3.33	1.3110	4.995	1.9655	9.00
38	....do		6.66	2.6220	3.33	1.3110	4.972	1.9574	5.50
39	....do		5.66	2.2283	3.00	1.1811	4.519	1.7786	5.25
171	....do		5.875	2.3129	2.00	0.7874	4.131	1.6263	6.00
177	....do		6.75	2.6574	2.375	0.9350	4.478	1.7629	4.375
178	....do		6.00	2.3622	2.50	0.9842	4.46	1.7559	2.875
179	....do		6.50	2.5590	2.50	0.9842	5.198	1.0464	3.875
180	....do		6.50	2.5590	1.875	0.7381	4.657	1.8334	5.25
181	....do		8.25	3.2480	2.75	1.0826	5.023	1.9775	4.375
182	....do		6.75	2.6574	2.00	0.7874	4.66	1.8346	4.50
183	....do		6.00	2.3622	2.00	0.7874	4.245	1.6712	9.87
187	....do		6.25	2.4606	2.25	0.8858	4.554	1.7893	7.505
189	....do		6.00	2.3622	2.50	0.9842	4.264	1.6787	4.12
190	....do		6.375	2.5098	1.875	0.7381	4.601	1.8114	4.755
	Average		6.469	2.5468	2.449	0.9641	4.626	1.8212	5.518
37	Belly		6.33	2.4921	2.33	0.9173	4.416	1.7385	5.75
38	....do		6.33	2.4921	3.00	1.1811	4.229	1.6649	3.25
39	....do		7.00	2.7559	2.66	1.0472	4.135	1.6279	3.50
171	....do		4.75	1.8700	1.875	0.7381	3.675	1.4468	3.625
177	....do		5.00	1.9685	2.875	1.1318	3.951	1.555	2.75
178	....do		4.75	1.8700	2.625	1.0334	3.645	1.435	2.125
179	....do		6.00	2.3622	2.50	0.9842	4.099	1.6137	3.00
181	....do		6.00	2.3622	3.00	1.1811	4.374	1.7220	3.375
182	....do		5.50	2.1653	1.125	0.4429	4.156	1.6362	3.375
183	....do		5.875	2.3129	2.00	0.7874	4.143	1.6310	8.00
187	....do		4.875	1.9192	2.00	0.7874	3.574	1.4070	4.00
189	....do		5.00	1.9685	2.625	1.0334	3.923	1.5444	2.00
190	....do		6.50	2.5590	2.75	1.0826	4.385	1.7263	4.00
	Average		5.685	2.2381	2.413	0.9499	4.054	1.5960	3.75
	LINCOLN.								
	Ram.								
59	Shoulder		5.833	2.2964	2.66	1.0472	4.201	1.6539	3.75
165	....do		8.75	3.448	1.50	0.5905	3.178	1.2511	5.00
166	....do		5.75	2.2637	2.125	0.8366	3.837	1.5106	2.625
167	....do		5.00	1.9685	2.50	0.9842	3.528	1.3889	3.125
	Average		6.333	2.4933	2.196	0.8645	3.686	1.4511	3.625
59	Side		6.33	2.4921	3.00	1.1811	3.970	1.5629	3.00
165	....do		4.625	1.8208	1.875	0.7381	3.178	1.2511	6.00
166	....do		5.00	1.9685	2.125	0.8366	3.616	1.4236	2.50
167	....do		4.875	1.9192	2.375	0.9350	3.646	1.4354	2.625
	Average		5.208	2.0503	2.344	0.9228	3.603	1.4185	3.531
59	Hip		6.33	2.4921	2.66	1.0472	4.567	1.7980	3.00
165	....do		4.75	1.8700	1.875	0.7381	3.319	1.3066	5.50
166	....do		6.00	2.3622	2.375	0.9351	4.276	1.6834	2.50
167	....co		5.25	2.669	2.125	0.8366	3.907	1.5381	2.875
	Average		5.583	2.1980	2.259	0.8893	4.017	1.5814	3.460
165	Belly		4.50	1.7716	1.50	0.5905	3.101	1.2208	2.75
166	....do		4.25	1.6732	2.25	0.8858	3.216	1.2661	2.00
167	....do		4.59	1.7716	2.50	0.9842	3.513	1.3830	1.625
	Average		4.417	1.7369	2.083	0.8200	3.277	1.2901	2.125
	Ewe.								
59	Shoulder		5.833	2.2964	2.33	0.9173	4.478	1.7629	3.50
61	....do		5.33	2.0984	2.00	0.7874	3.909	1.5389	6.25
164	....do		5.00	1.9685	1.875	0.731	3.620	1.4251	6.50
168	....do		4.50	1.7716	1.625	0.6397	3.410	1.3425	2.875
169	....do		5.00	1.9685	1.50	0.5905	3.824	1.5055	2.625
	Average		5.133	2.0208	1.866	0.7346	3.848	1.5149	4.35
60	Side		7.33	2.8858	2.33	0.9173	4.488	1.7669	3.75
61	....do		5.33	2.0984	2.00	0.7874	3.611	1.4216	6.75
164	....do		5.375	1.7224	1.25	0.4921	3.548	1.3968	7.00
168	....do		4.875	1.9192	2.375	0.9350	3.545	1.3656	3.25
169	....do		5.00	1.9685	2.375	0.9350	3.853	1.5169	2.75
	Average		5.582	2.1976	2.066	0.8133	3.809	1.4996	4.70
60	Hip		6.00	2.3622	2.66	1.0472	4.318	1.6999	3.25
11	....do		5.66	2.2283	2.66	1.0472	4.124	1.6236	6.75
164	....do		5.00	1.9685	1.50	0.5905	3.522	1.3866	5.625
168	....do		4.75	1.8700	2.50	0.9842	3.638	1.4322	2.875
169	....do		5.375	2.1161	2.00	0.7874	3.917	1.5421	2.875
	Average		5.357	2.1090	2.264	0.8913	3.904	1.5370	4.275

TABLE IV.—*Individual extremes and averages showing influence of breed, sex, and portion of fleece upon fineness*—Cont'd.

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	LINCOLN—cont'd.								
	Ewe—Cont'd.								
60	Belly	.....	5.66	2.2283	2.00	0.7874	3.887	1.5303	2.25
61	....do	.....	5.33	2.0984	2.00	0.7874	3.581	1.4198	3.625
164	....do	.....	3.875	1.5255	1.375	0.5413	2.964	1.1669	3.50
168	....do	.....	4.25	1.6732	2.00	0.7874	3.53	1.3937	1.75
169	....do	.....	5.25	2.0669	2.58	0.9842	3.645	1.4547	1.625
	Average	.....	4.873	1.9185	2.000	0.7897	3.531	1.3901	2.55
	SOUTHDOWN.								
	Ram.								
62	Shoulder	12	4.66	1.8346	2.00	0.7874	3.063	1.2059	1.375
62	Side	12	4.66	1.8346	2.00	0.7874	3.274	2.2889	1.50
62	Hip	.....	4.66	1.8346	2.33	0.9173	3.186	1.2543	1.00
62	Belly	.....	4.33	1.7047	2.00	0.7874	3.024	1.1905	.....
132	.....	.....	4.00	1.5748	1.75	0.6889	2.815	1.1083	1.125
134	.....	.....	3.875	1.5255	1.125	0.4429	2.823	1.1114	1.50
144	.....	.....	4.75	1.8700	1.375	0.5413	3.233	1.2728	1.625
135	.....	.....	4.25	1.6732	0.875	0.3444	2.996	1.1795	1.375
136	.....	.....	3.875	1.5255	1.50	0.5905	2.696	1.0614	1.00
137	.....	.....	5.50	2.1653	2.00	0.7874	3.209	1.2635	1.50
138	.....	.....	3.75	1.4763	1.25	0.4921	2.580	1.0157	1.875
139	.....	.....	4.75	1.8700	1.625	0.6397	2.745	1.0807	2.00
140	.....	.....	4.25	1.6732	1.75	0.6889	2.449	0.9641	1.75
	Average	13	4.407	1.7350	1.66	0.6535	2.940	1.1574	1.411
	Ewe.								
63	Shoulder	14	4.00	1.5748	2.00	0.7874	2.946	1.1598	1.25
91	....do	12	4.25	1.6732	1.75	0.6889	3.193	1.2570	1.50
92	....do	12	6.33	2.4921	2.33	0.9173	3.607	1.4200	1.375
93	....do	12	4.33	1.7047	2.00	0.7874	2.94	1.1574	1.1875
94	....do	14	4.66	1.8346	2.66	0.7874	2.743	1.0799	1.25
95	....do	14	4.33	1.5748	1.66	0.6585	2.496	0.9826	1.50
	Average	13	4.395	1.8090	1.957	0.7704	2.988	1.1763	1.344
63	Side	14	4.66	1.8346	1.33	0.5236	3.013	1.1862	.....
91	....do	.....	4.66	1.8346	2.00	0.7874	3.128	1.2314	1.1875
92	....do	.....	4.75	1.8700	1.50	0.5905	2.705	1.0649	1.00
93	....do	14	4.66	1.5748	1.66	0.6535	2.947	1.1602	1.00
94	....do	14	4.00	1.5748	1.66	0.6535	2.940	1.1574	1.125
95	....do	14	4.43	1.3110	1.66	0.6535	2.496	0.9826	1.4375
	Average	14	4.393	1.7059	1.635	0.6436	2.872	1.1307	1.15
63	Hip	.....	5.233	2.0602	1.66	0.6535	3.235	1.2736	.....
91	....do	12	4.66	1.8346	2.00	0.7874	3.316	1.3056	1.5625
92	....do	12	5.33	2.0984	1.66	0.6535	2.965	1.1673	1.375
93	....do	12	5.00	1.9685	2.33	0.9173	3.111	1.2248	1.125
94	....do	.....	5.66	2.2283	2.66	0.7874	3.501	1.3733	2.00
95	....do	12	4.66	1.8346	1.66	0.6535	2.777	1.0933	1.75
	Average	12	5.091	2.0043	1.885	0.7421	3.151	1.2405	1.563
63	Belly	.....	4.00	1.5748	2.00	0.7874	2.912	1.1464	0.75
91	....do	14	3.33	1.3110	1.66	0.6535	2.77	1.0906	0.875
92	....do	12	4.66	1.8346	2.00	0.7874	2.872	1.1307	0.875
93	....do	12	4.33	1.7047	2.00	0.7874	2.788	1.0976	.....
94	....do	.....	4.33	1.7047	2.00	0.7874	2.918	1.1488	0.875
95	....do	.....	4.00	1.5748	1.66	0.6535	2.807	1.1051	1.5625
	Average	14	1.108	1.6173	1.887	0.7429	2.845	1.1200	0.9875
141	.....	.....	4.75	1.8700	1.50	0.5905	2.831	1.1145	1.125
142	.....	.....	4.00	1.5748	1.625	0.6397	2.692	1.0598	1.00
143	.....	.....	5.00	1.9685	1.75	0.6889	3.020	1.1889	1.25
144	.....	.....	5.00	1.9685	2.00	0.7874	3.095	1.1830	1.75
145	.....	.....	4.25	1.6732	2.00	0.7874	3.054	1.2141	1.50
146	.....	.....	4.50	1.7716	2.00	0.7874	2.849	1.1216	1.375
147	.....	.....	4.00	1.5748	1.375	0.5413	2.663	1.0484	1.625
148	.....	.....	4.875	1.9192	1.25	0.4921	2.911	1.1460	1.625
149	.....	.....	4.50	1.7716	1.375	0.5413	2.667	1.0499	2.00
	Average	13.176	4.516	1.7779	1.789	0.7143	2.904	1.1433	1.328

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	OXFORD.								
	Ram.								
65	Shoulder	.....	5.66	2.2283	2.66	0.7874	3.942	1.5519	1.125
66	....do	.....	5.33	2.0984	2.66	0.7874	3.667	1.4436	2.50
67	....do	.....	7.33	2.8858	3.66	1.0472	4.787	1.8846	3.00
	Average	.....	6.107	2.4043	2.22	0.8748	4.132	1.6267	2.208
65	Side	.....	6.66	2.6220	2.66	1.0472	3.915	1.5413	2.00
66	....do	.....	6.00	2.3622	2.66	1.0472	4.015	1.5802	3.625
67	....do	.....	7.66	3.0157	3.33	1.3110	5.129	2.0192	2.75
	Average	.....	6.773	2.6665	2.883	1.1350	4.353	1.7137	2.792
65	Hip	.....	6.66	2.6220	3.66	1.0472	4.097	1.5775	1.75
66	....do	.....	6.00	2.3622	2.00	0.7874	3.957	1.5578	3.75
67	....do	.....	7.00	2.7559	3.166	1.2464	4.714	1.8559	2.75
	Average	.....	6.553	2.5799	2.609	1.0271	4.226	1.6637	2.75
65	Belly	.....	6.00	2.3622	2.66	1.0472	5.624	1.4267	2.50
66	....do	.....	5.33	2.0984	2.33	0.9173	3.69	1.4173	2.25
67	....do	.....	7.66	3.0157	3.33	1.3110	4.931	1.9413	3.00
	Average	.....	6.33	2.4921	2.773	1.0917	4.748	1.8574	2.916
150	.....	.....	7.125	2.8051	2.75	1.0826	4.806	1.8921	2.50
151	.....	.....	7.625	3.0019	2.00	0.7874	3.929	1.5444	2.00
152	.....	.....	6.875	2.7066	2.375	0.9350	4.046	1.5929	2.75
153	.....	.....	5.75	2.2637	1.875	0.7381	3.704	1.4582	2.75
154	.....	.....	7.00	2.7559	3.125	1.2303	4.72	1.8582	2.875
155	.....	.....	6.00	2.3622	1.50	0.5905	3.356	1.3212	3.00
	Average	.....	6.537	2.5744	2.504	0.9858	4.209	1.6907	2.604
	Ewe.								
64	Shoulder	.....	6.00	2.3622	3.33	1.3110	4.542	1.7881	3.00
64	Side	.....	6.33	2.4921	2.33	0.9173	4.363	1.7177	2.50
64	Hip	.....	6.66	2.6220	3.33	1.3110	5.038	1.9834	2.75
64	Belly	.....	6.00	2.3622	2.66	1.0472	4.24	1.6693	1.75
156	.....	.....	6.25	2.4606	3.625	1.4271	4.539	1.7870	2.75
157	.....	.....	5.00	1.9685	2.00	0.7874	3.766	1.4826	2.75
158	.....	.....	5.875	2.3120	3.125	1.2303	4.51	1.7756	2.75
159	.....	.....	5.50	2.1653	1.875	0.7381	3.797	1.4948	3.00
160	.....	.....	6.25	2.4606	2.125	0.8366	4.161	1.6381	2.50
161	.....	.....	5.125	2.0177	1.25	0.4921	3.432	1.3510	3.50
	Average	.....	5.899	2.3224	2.565	1.0098	4.241	1.6696	2.725
	MERINO.								
	Ram.								
30	Neck, top of wrinkle	16	4.25	1.6732	2.00	0.7874	2.822	1.1110	1.25
	Neck, betw. wrinkle	16	4.50	1.7716	1.75	0.6889	2.466	0.9708	1.625
	Average	16	3.875	1.5255	1.875	0.7380	2.644	1.0409	1.4375
30	Shoulder	16	2.75	1.0826	1.75	0.6889	2.252	0.8866	1.50
47	....do	20	3.00	1.1811	1.25	0.4921	2.199	0.8657	1.50
48	Shoulder, top of wrinkle	16	4.50	1.7716	1.25	0.4921	2.374	0.9347	1.125
	Shoulder, between wrinkle	16	3.50	1.3779	1.50	0.5905	2.302	0.9062	1.50
51	Shoulder	20	4.50	1.7716	1.50	0.5905	2.219	0.8736	1.75
53	....do	17	2.50	0.9842	1.50	0.5905	1.896	0.7464	1.4375
	Shoulder, top of wrinkle	.....	4.66	1.5748	1.50	0.5905	2.136	0.9118	1.25
	Shoulder, between wrinkle	20	3.00	1.1811	1.25	0.4921	1.850	0.7283	1.00
54	Shoulder, top of wrinkle	14	4.66	1.5748	1.75	0.6889	2.514	0.9897	0.875
	Shoulder, between wrinkle	.....	3.00	1.1811	1.25	0.4921	2.008	0.7905	1.0625
55	Shoulder, top of wrinkle	14	4.00	1.5748	1.00	0.3937	2.455	0.9667	1.1875
	Shoulder, between wrinkle	20	3.00	1.1811	1.25	0.4921	2.008	0.7905	1.0625
68	Shoulder	20	3.66	1.5078	1.66	0.6535	2.272	0.8944	1.375
69	....do	20	3.33	1.3110	1.33	0.5236	2.240	0.8819	1.375
71	....do	20	3.50	1.3779	1.75	0.6889	2.31	0.9094	1.50
72	....do	20	2.75	1.0826	1.50	0.5905	2.100	0.8267	1.25
73	....do	20	3.50	1.3779	1.50	0.5905	2.116	0.8330	1.625
74	....do	20	3.66	1.1811	1.50	0.5905	2.170	0.8543	1.375

TABLE IV.—*Individual extremes and averages showing influence of breed, sex, and portion of fleece upon fineness*—Cont'd.

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	MERINO—continued.								
	Ewe.								
70	Shoulder	[illegible]	4.25	1.6732	1.50	0.5905	2.030	0.7992	1.50
82	....do	20	3.25	1.2795	1.50	0.5905	2.083	0.8200	1.50
89	....do	20	3.25	1.2795	1.25	0.4921	2.004	0.7889	1.4375
[illegible]	....do	20	4.00	1.5748	1.25	0.4921	2.200	0.8661	1.25
	Average	18.90	3.473	1.3673	1.431	0.5633	2.171	0.8547	1.338
30	Side	16	3.00	1.1811	1.50	0.5905	2.143	0.8436	1.3125
47	....do	20	3.25	1.2775	1.75	0.6889	2.163	0.8515	1.1875
[illegible]	....do	16	3.75	1.4763	1.00	0.3937	2.218	0.8712	1.375
51	....do	[illegible]	3.50	1.3779	1.50	0.5905	2.213	0.8712	1.4375
53	....do	22	2.50	0.9842	1.25	0.4921	1.816	0.7149	1.375
55	....do	20	2.75	1.0826	1.25	0.4921	1.861	0.7326	1.0625
68	....do	20	4.66	1.8646	1.66	0.6535	2.472	0.9732	1.375
69	....do	20	4.00	1.5748	1.33	0.5236	2.427	0.9555	1.375
71	....do	20	3.00	1.1811	1.50	0.5905	2.128	0.8377	1.25
72	....do	20	2.75	1.0826	1.50	0.5905	2.068	0.8141	1.125
73	....do	20	3.00	1.1811	1.50	0.5905	2.186	0.8606	1.375
[illegible]	....do	[illegible]	4.00	1.5748	1.25	0.4921	2.191	0.8625	1.125
79	....do	20	3.50	1.3779	1.50	0.5905	2.023	0.7964	1.50
82	....do	[illegible]	3.00	1.1811	1.50	0.5905	2.296	0.9039	1.25
[illegible]	....do	20	4.00	1.5748	1.50	0.5905	2.026	0.7976	1.25
90	....do	20	3.50	1.3779	1.25	0.4921	2.263	0.8909	1.125
	Average	19.625	3.385	1.3326	1.421	0.5594	2.156	0.8488	1.281
[illegible]	Hip	14	3.25	1.2796	1.75	0.6889	2.294	0.9031	1.75
47	....do	20	3.50	1.3779	1.50	0.5905	2.294	0.9031	1.375
48	....do	16	3.75	1.4763	1.50	0.5905	2.391	0.9413	1.75
51	....do	16	4.00	1.5748	1.25	0.4921	2.141	0.8429	1.50
53	....do	20	2.25	0.8858	1.00	0.3937	1.697	0.6681	1.3125
	Hip, top of wrinkle	14	5.00	1.9685	1.25	0.4921	2.668	1.0267	1.1875
	Hip, betw. wrinkle	16	3.50	1.3779	1.25	0.4921	2.027	0.7980	0.875
54	Hip, top of wrinkle	.....	5.00	1.9685	1.75	0.6889	2.902	1.1425	0.875
	Hip, betw. wrinkle	14	3.50	1.3779	1.25	0.4921	2.208	0.8692	1.00
55	Hip, top of wrinkle	16	4.25	1.6732	1.50	0.5905	2.291	0.9019	1.125
	Hip, betw. wrinkle	20	3.00	1.1811	1.25	0.4921	1.908	0.7511	1.125
[illegible]	Hip	16	4.66	1.8646	1.66	0.6535	2.752	1.0834	1.375
69	....do	16	5.66	2.2258	1.66	0.6535	2.530	0.9960	1.625
71	....do	20	3.50	1.3779	1.50	0.5905	2.283	0.8988	1.125
72	....do	16	5.00	1.9685	1.25	0.4921	2.270	0.8936	1.00
73	....do	[illegible]	4.25	1.6732	1.25	0.4921	2.186	0.8606	1.25
78	....do	16	3.50	1.3779	1.75	0.6889	2.366	0.9314	1.375
79	Hip, top of wrinkle	14	4.50	1.7716	1.75	0.6889	2.643	1.0405	1.25
	Hip, betw. wrinkle	16	4.00	1.5748	1.50	0.5905	2.357	0.9279	1.375
82	Hip	20	3.50	1.3779	1.25	0.4921	2.220	0.8740	1.375
89	....do	20	3.25	1.2795	1.25	0.4921	1.956	0.7700	1.25
[illegible]	....do	20	3.00	1.1811	1.50	0.5905	2.193	0.8633	1.1875
	Average	16.952	3.901	1.5358	1.435	0.5649	2.297	0.9043	1.276
30	Belly	20	3.25	1.2795	1.50	0.5905	2.202	0.8669	1.375
47	....do	20	3.60	1.3779	1.75	0.6889	2.361	0.9295	1.4375
48	....do	16	4.00	1.5748	1.50	0.5905	2.369	0.9326	1.50
51	....do	16	3.25	1.2795	1.25	0.4921	2.205	0.8681	1.625
53a	....do	20	2.50	0.9842	1.50	0.5905	1.836	0.7228	1.25
b	....do	20	3.00	1.1811	1.50	0.5905	2.013	0.7225	1.00
54	....do	.....	3.50	1.3779	1.25	0.4921	2.108	0.8229	1.00
55	....do	20	3.25	1.2795	1.50	0.5905	2.038	0.8023	1.1875
[illegible]	....do	20	3.66	1.4509	1.66	0.6535	2.428	0.9559	1.00
69	....do	20	3.00	1.1811	1.66	0.6535	2.363	0.9303	1.25
71	....do	16	3.50	1.3779	1.75	0.6889	2.383	0.9381	1.375
72	....do	[illegible]	3.25	1.2795	1.50	0.5905	2.470	0.9724	1.125
73	....do	20	4.25	1.6732	1.25	0.4921	2.34	0.9212	1.50
78	....do	20	3.00	1.1811	1.25	0.4921	2.086	0.8212	1.375
79	....do	20	3.00	1.1811	1.50	0.5905	2.155	0.8484	1.50
82	....do	20	3.50	1.3779	2.00	0.7874	2.513	0.9893	1.25
89	....do	20	3.00	1.1811	1.25	0.4921	2.009	0.7909	1.25
90	....do	20	3.75	1.4763	1.25	0.4921	2.343	0.9224	1.125
	Average	19.294	3.342	1.3157	1.490	0.5866	2.234	0.8795	1.284
99	.....	[illegible]	2.25	0.8858	1.00	0.3937	1.704	0.6708	2.0625
104	.....	25	3.00	1.1811	1.25	0.4921	1.830	0.7204	1.625
104a	.....	25	2.75	1.0826	1.00	0.3937	1.758	0.6921	2.125
349	Top of wrinkle	14	5.00	1.9685	1.625	0.6397	2.562	1.0086	2.50
	Between wrinkle	20	3.25	1.2795	1.50	0.5905	2.094	0.8244	3.25
350	.....	20	3.125	1.2303	1.75	0.6889	2.224	0.8755	2.50
360	.....	20	3.25	1.2795	1.50	0.5905	2.263	0.8909	2.75
361	.....	20	2.875	1.1318	1.125	0.4429	2.215	0.8720	2.50
	Average	18.786	3.520	1.3858	1.445	0.5688	1.215	0.8720	1.424

Catalogue number of samp'es.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	MERINO—continued.								
	Ewe.								
41	Neck	16	3.00	1.1811	1.50	0.5905	2.088	0.8220	1.75
45	Neck, top of wrinkle	16	4.00	1.5748	1.50	0.5905	2.296	0.9039	1.1875
	Neck, between wrinkle	16	3.25	1.2795	1.25	0.4921	2.271	0.8940	1.125
56	Neck, top of wrinkle	16	3.50	1.3779	1.25	0.4921	2.492	0.9818	1.1875
	Average	[illegible]	3.313	1.3043	1.375	0.5413	2.287	0.9003	1.3125
46	Shoulder	20	3.50	1.3779	1.25	0.4921	2.116	0.8330	1.375
52	....do	22	2.50	0.9842	1.25	0.4921	1.733	0.6822	1.5625
56	Shoulder, between wrinkle	20	3.00	1.1811	1.00	0.3937	2.013	0.7925	1.125
57	Shoulder, top of wrinkle	.....	4.75	1.8700	1.50	0.5905	2.405	0.9468	0.875
	Shoulder, between wrinkle	20	3.50	1.3779	1.25	0.4921	2.149	0.8460	1.0625
58	Shoulder, top of wrinkle	16	4.00	1.5748	1.50	0.5905	2.216	0.8781	1.125
	Shoulder, between wrinkle	20	3.00	1.1811	1.50	0.5905	2.030	0.7992	1.25
70	Shoulder	20	3.33	1.3110	1.33	0.5236	2.119	0.8342	1.25
74	....do	16	4.00	1.5748	1.50	0.5905	2.487	0.9791	1.375
75	....do	16	3.50	1.3779	1.50	0.5905	2.365	0.9311	1.50
[illegible]	....do	[illegible]	3.875	1.5225	1.50	0.5905	2.245	0.8838	1.375
77	....do	20	2.50	0.9842	1.50	0.5905	1.928	0.7590	1.125
[illegible]	....do	20	2.25	0.8858	1.25	0.4921	1.770	0.6968	1.50
81	....do	20	3.00	1.1811	1.50	0.5905	2.133	0.8397	1.625
83	....do	20	3.50	1.3779	1.50	0.5905	2.093	0.8240	1.25
84	....do	22	3.50	1.3779	1.50	0.5905	1.953	0.7688	1.375
	Shoulder, 17 months	22	3.75	1.4763	1.25	0.4921	2.035	0.8011	3.125
85	Shoulder	22	2.75	1.0826	1.25	0.4921	1.793	0.7059	1.375
86	....do	22	3.50	1.3779	1.00	0.3937	1.851	0.7287	1.375
87	....do	22	3.00	1.1811	1.50	0.5905	2.050	0.8094	1.50
[illegible]	....do	20	3.00	1.1811	1.25	0.4921	1.920	0.7562	1.125
	Average	19.80	3.319	1.3066	1.361	0.5358	2.041	0.8035	1.393
41	Side	[illegible]	3.00	1.1811	1.50	0.5905	1.977	0.7783	1.50
45	....do	20	3.75	1.4763	1.25	0.4921	2.294	0.9031	1.375
46	....do	[illegible]	3.75	1.4763	1.25	0.4921	1.991	0.7838	1.25
52	....do	22	2.75	1.0826	1.00	0.3937	1.716	0.6755	1.25
56	....do	20	3.00	1.1811	1.25	0.4921	2.152	0.8472	1.8125
70	....do	20	3.33	1.3110	1.33	0.5236	2.099	0.8263	1.25
74	....do	16	3.50	1.3779	1.50	0.5905	2.403	0.9460	1.50
75	....do	20	3.75	1.4763	1.50	0.5905	2.263	0.8909	1.50
76	....do	20	2.75	1.0826	1.50	0.5905	2.066	0.8133	1.125
77	....do	20	3.00	1.1811	1.25	0.4921	1.921	0.7562	1.375
80	....do	22	3.50	1.3779	1.25	0.4921	1.753	0.6901	1.625
81	....do	16	3.50	1.3779	1.50	0.5905	2.146	0.8448	1.625
83	....do	20	4.00	1.5748	1.50	0.5905	2.123	0.8358	1.375
84	....do	22	3.50	1.3779	1.25	0.4921	1.970	0.7755	1.00
85	....do	22	2.50	0.9842	1.25	0.4921	1.810	0.7125	1.375
86	....do	22	3.50	1.3779	1.50	0.5905	2.106	0.8291	1.25
87	....do	22	3.25	1.2795	1.50	0.5905	2.201	0.8665	1.1875
88	....do	20	3.25	1.2795	1.25	0.4921	1.976	0.7779	1.25
	Average	20	3.310	1.3031	1.352	0.5322	2.054	0.8086	1.368
41	Hip	16	3.00	1.1811	1.50	0.5905	1.977	0.7783	1.50
45	....do	12	4.25	1.6732	1.50	0.5905	2.799	1.1019	1.[illegible]
46	....do	[illegible]	3.25	1.2795	1.25	0.4921	2.091	0.[illegible]	1.50
52	....do	20	2.50	0.9842	1.50	0.4921	1.869	0.7358	1.375
56	Hip, top of wrinkle	16	4.00	1.5748	1.50	0.5905	2.36	0.9303	1.00
	Hip, betw. wrinkle	20	4.00	1.5748	1.00	0.3937	2.255	0.8877	0.75
57	.....	20	3.25	1.2795	1.25	0.4921	2.141	0.8429	0.875
58	Hip, top of wrinkle	16	5.00	1.9685	1.75	0.6889	2.635	1.0373	1.00
	Hip, betw. wrinkle	[illegible]	3.50	1.3779	1.25	0.4921	2.096	0.8251	1.125
70	Hip	20	3.50	1.3779	1.375	0.5413	2.115	0.8326	1.125
74	....do	14	6.00	2.3622	1.50	0.5905	2.470	0.9724	1.50
75	....do	16	3.75	1.4763	1.50	0.5905	2.455	0.9667	1.375
[illegible]	....do	16	4.00	1.5748	1.50	0.5905	2.216	0.8724	1.50
77	....do	20	4.25	1.6732	1.25	0.4921	2.200	0.8661	1.00
80	....do	[illegible]	2.75	1.0826	1.25	0.4921	1.873	0.7374	1.375
81	....do	16	3.50	1.3779	1.25	0.4921	2.316	0.9118	1.375
83	....do	16	5.25	2.0669	1.00	0.3937	2.383	0.9381	1.375
84	....do	20	4.00	1.5748	1.50	0.5905	2.201	0.8665	1.00
85	....do	20	3.00	1.1811	1.00	0.3937	1.838	0.7236	1.25
[illegible]	....do	22	3.50	1.3779	1.50	0.5905	2.083	0.8200	1.25
87	....do	22	3.00	1.1811	1.50	0.5905	2.173	0.8555	1.25
[illegible]	....do	20	2.75	1.0826	1.00	0.3937	8.980	0.7795	1.25
	Average	17	3.727	1.4673	2.347	0.5303	3.206	0.8685	1.219
41	Belly	14	4.00	1.5748	1.25	0.4921	1.993	0.7846	1.875
45	....do	16	3.00	1.1811	1.25	0.4921	2.173	0.8555	1.25
[illegible]	....do	20	3.00	1.1811	1.25	0.4921	2.094	0.8244	1.4375
52	....do	20	3.25	1.2795	1.25	0.4921	1.808	0.7118	1.1875

TABLE IV.—*Individual extremes and averages showing influence of breed, sex, and portion of fleece upon fineness*—Cont'd.

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	MERINO—continued.								
	Ewe—Continued.								
56	Belly	20	2.75	1.0826	1.50	0.5905	2.049	0.8066	0.9375
57	....do	20	3.00	1.1811	1.25	0.4921	2.158	0.8496	0.875
58	....do	20	3.00	1.1811	1.50	0.5905	2.656	0.8118	1.125
70	....do	20	4.00	1.5748	1.50	0.5905	2.431	0.9570	1.25
74	....do	20	4.00	1.5748	1.50	0.5905	2.394	0.9409	1.25
75	....do	20	4.00	1.5748	1.25	0.4921	2.423	0.9539	1.375
76	....do	20	4.00	1.5748	1.875	0.7381	2.415	0.9646	1.125
77	....do	20	3.00	1.3779	1.25	0.4921	1.963	0.7728	1.50
80	....do	20	3.00	1.1811	1.50	0.5905	2.125	0.8370	1.375
81	....do	20	3.00	1.1811	1.50	0.5905	2.252	0.8870	1.50
83	....do	20	4.75	1.8700	1.25	0.4921	2.389	0.9442	1.25
85	....do	20	3.75	1.4763	1.00	0.3937	1.886	0.7425	1.375
86	....do	20	3.00	1.1811	1.50	0.5905	2.176	0.8566	1.375
87	....do	20	2.75	1.0826	1.50	0.5905	1.928	0.7590	1.50
88	....do	20	4.75	1.8700	1.50	0.5905	2.234	0.8791	1.25
	Average.....	19.474	3.50	1.3779	1.388	0.5463	2.169	0.8538	1.306

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	MERINO—continued.								
	Ewe—Continued.								
96	.....	30	2.00	0.7874	1.00	0.3937	1.472	0.5796	2.00
98	.....	30	2.50	0.9842	1.00	0.3937	1.687	0.6641	1.875
99a	.....	30	2.25	0.8858	0.75	0.2952	1.588	0.6192	2.125
100	.....	30	2.25	0.8858	1.00	0.3937	1.521	0.5988	1.75
102	.....	30	2.50	0.9842	1.00	0.3937	1.509	0.5295	1.375
103	.....	25	3.50	1.3779	1.25	0.4921	1.891	0.7444	2.375
347	.....	16	3.375	1.3287	0.75	0.2953	1.887	0.7429	3.125
348	.....	16	3.25	1.2795	1.25	0.4921	1.971	0.7759	3.125
351	.....	20	2.375	0.9350	1.25	0.4921	1.655	0.6515	3.00
352	.....	20	3.25	1.2795	1.25	0.4921	1.848	0.7275	2.75
353	.....	20	2.875	1.1318	1.25	0.4921	1.867	0.7350	2.25
354	.....	22	3.25	1.2795	1.125	0.4429	1.856	0.7307	2.75
355	.....	20	3.375	1.3287	1.50	0.5905	2.163	0.8515	2.75
356	.....	20	4.50	1.7716	1.375	0.5413	2.185	0.8041	2.50
357	.....	20	3.50	1.3779	1.125	0.4429	1.890	0.7440	2.50
358	.....	20	3.25	1.2795	1.23	0.4921	2.033	0.8003	2.25
	Average.....	19.828	3.305	1.3366	1.325	0.5216	1.847	0.7274	1.492

TABLE V.—*General extremes and averages, showing influence of breed, sex, and portion of fleece upon fineness.*

Breeds.	No. of samples tested.	Highest.		Lowest.		Average.		Length in inches.
		In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
General averages for each breed regardless of other conditions:								
Cotswold	109	5.961	2.3468	2.261	0.8901	4.196	1.6519	5.156
Leicester	1	5.75	2.2637	2.50	0.9842	3.879	1.5271	9.75
Lincoln	36	5.298	2.0858	2.103	0.8279	3.707	1.4594	8.785
Southdown	46	4.486	1.7661	1.753	0.6901	2.936	1.1559	1.351
Hampshire	2	5.50	2.1653	1.750	0.6889	3.298	1.2984	2.188
Oxford	30	6.255	2.4625	2.496	0.9826	4.365	1.7185	2.647.
Merino	206	3.406	1.3409	1.371	0.5397	2.127	0.8373	1.502

Portion of fleece represented.	No. of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
		In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
COTSWOLD.								
Ram.								
General averages for whole fleece and parts of fleece for each sex:								
Whole fleece	.....	5.996	2.3606	2.345	0.9232	4.227	1.6641	5.155
Shoulder	.....	5.708	2.2472	2.302	0.9062	4.103	1.6153	5.307
Side	.....	6.268	2.4677	2.628	1.0364	4.256	1.6755	5.671
Hip	.....	6.496	2.5574	2.140	0.8425	4.415	1.7381	5.386
Belly	.....	5.511	2.1696	2.492	0.9811	4.112	1.6188	3.789
Ewe.								
Whole fleece	.....	6.022	2.3708	2.262	0.8905	4.252	1.6740	5.016
Shoulder	.....	5.814	2.2889	2.140	0.8425	4.092	1.6110	5.223
Side	.....	6.098	2.4007	2.059	0.8106	4.225	1.6633	5.482
Hip	.....	6.469	2.5468	2.449	0.9641	4.626	1.8212	5.518
Belly	.....	5.685	2.2381	2.413	0.9499	4.054	1.5960	3.75
LINCOLN.								
Ram.								
Whole fleece	.....	5.450	2.1456	2.23	0.8779	3.671	1.4452	3.258
Shoulder	.....	6.333	2.4933	2.196	0.8645	3.686	1.4511	3.625
Side	.....	5.208	2.0503	2.344	0.9228	3.603	1.4185	3.531
Hip	.....	5.583	2.1980	2.259	0.8893	4.017	1.5814	3.469
Belly	.....	4.417	1.7389	2.083	0.8200	3.277	1.2901	2.125
Ewe.								
Whole fleece	.....	5.236	2.0614	2.051	0.8074	3.774	1.4858	3.969
Shoulder	.....	5.133	2.0208	1.866	0.7346	3.848	1.5149	4.35
Side	.....	5.582	2.1976	2.066	0.8133	3.809	1.4996	4.70
Hip	.....	5.357	2.1090	2.264	0.8913	3.904	1.5370	4.275
Belly	.....	4.873	1.9185	2.006	0.7897	3.531	1.3901	2.55
SOUTHDOWN.								
Ram.								
Whole fleece	11.	1.407	1.7350	1.660	0.6535	2.940	1.1574	1.411
Shoulder	12.	4.66	1.8346	2.00	0.7874	3.063	1.2059	1.375
Side	12.	4.66	1.8346	2.00	0.7874	3.274	1.2889	1.50
Hip	.....	4.66	1.8346	2.33	0.9173	3.186	1.2543	1.00
Belly	.....	4.33	1.7047	2.00	0.7874	3.024	1.1905	.....
Ewe.								
Whole fleece	13.176	4.516	1.7779	1.789	0.7143	2.904	1.1433	[illegible]
Shoulder	13.	4.595	1.8090	1.957	0.7704	2.988	1.1763	1.344
Side	14.	4.333	1.7059	1.635	0.6436	2.872	1.1307	1.15
Hip	12.	5.091	2.0043	1.885	0.7421	3.151	1.2405	1.563
Belly	14.	4.108	1.6173	1.887	0.7429	2.845	1.1200	0.9875
OXFORD.								
Ram.								
Whole fleece	.....	6.539	2.5744	2.504	0.9858	4.269	1.6807	2.604
Shoulder	.....	6.107	2.4043	2.220	0.8740	4.132	1.6267	2.208
Side	.....	6.773	2.665	2.883	1.1350	4.353	1.7137	2.792
Hip	.....	6.553	2.5799	2.609	1.0271	4.226	1.6637	2.750
Belly	.....	6.330	2.4921	2.773	1.0917	4.718	1.8574	2.916
Ewe.								
Whole fleece	.....	5.899	2.3224	2.565	1.0098	4.241	1.6696	2.725
Shoulder	.....	6.00	2.3622	3.330	1.3110	4.542	1.7881	3.00
Side	.....	6.33	2.4921	2.33	0.9173	4.363	1.7177	2.50
Hip	.....	6.66	2.6220	3.33	1.3110	5.038	1.9834	2.75
Belly	.....	6.00	2.3622	2.66	1.0472	4.240	1.6692	1.75
MERINO.								
Ram.								
Whole fleece	18.786	3.520	1.3858	1.445	0.5688	2.215	0.8720	1.424
Neck	16.	3.875	1.5255	1.875	0.7380	2.644	1.0409	1.4375
Shoulder	18.90	3.473	1.3673	1.431	0.5633	2.171	0.8547	1.338
Side	19.625	3.385	1.3326	1.421	0.5594	2.156	0.8488	1.281
Hip	16.952	3.901	1.5358	1.435	0.5649	2.297	0.9043	1.276
Belly	19.294	3.342	1.3157	1.490	0.5866	2.234	0.8795	1.284
Ewe.								
Whole fleece	19.828	3.395	1.3367	1.325	0.5216	2.084	0.8204	1.491
Neck	16.	3.313	1.3043	1.375	0.5413	2.287	0.9003	1.3125
Shoulder	19.80	3.319	1.3066	1.361	0.5358	2.041	0.8035	1.393
Side	20.	3.310	1.3031	1.352	0.5322	2.054	0.8086	1.368
Hip	17.	3.727	1.4673	1.347	0.5303	2.206	0.8684	1.219
Belly	19.474	3.50	1.3779	1.388	0.5464	2.160	0.8503	1.306

TABLE VI.—*Individual extremes and averages, showing influence of age upon fineness.*

Catalogue number of sample.	Portion of fleece represented.	No. of crimp per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	COTSWOLD.								
	Ram.								
	Lamb:								
172	Shoulder		4.50	1.7716	1.75	0.6889	3.175	1.2499	4.125
	Side		5.25	2.0669	1.625	0.6397	3.493	1.3775	6.00
	Hip		5.50	2.1653	1.75	0.6889	3.588	1.4128	4.50
	Belly		4.25	1.6732	1.375	0.5413	3.207	1.2362	3.125
183	Shoulder		5.75	2.2637	1.50	0.5905	4.042	1.5313	8.50
	Side		5.50	2.1653	2.875	1.1318	4.161	1.6381	9.125
	Hip		6.00	2.3622	2.00	0.7874	4.388	1.7275	7.50
	Belly		5.00	1.9685	2.00	0.7874	3.885	1.5295	6.125
	Average		5.219	2.0547	1.859	0.7318	3.726	1.4669	6.125
	Six months:								
29	Shoulder		6.66	2.3622	2.66	0.7874	4.111	1.6185	7.25
	Side		5.66	2.2283	2.66	0.7874	4.184	1.6472	8.25
	Hip		6.66	2.3622	2.66	0.7874	4.184	1.6472	8.00
	Belly		6.66	2.3622	2.66	0.7874	4.203	1.6547	5.50
	Average		5.915	2.3287	2.66	0.7874	4.171	1.6421	7.25
	One year:								
34	Shoulder		6.33	2.4921	2.66	1.0472	4.399	1.7318	6.50
	Side		6.66	2.6220	2.66	1.0472	4.704	1.8519	4.75
	Hip		6.33	2.4921	2.66	0.7874	4.428	1.7433	6.00
	Belly		6.66	2.3622	3.33	1.3110	4.474	1.7614	3.75
174	Shoulder		5.00	1.9685	2.50	0.9842	3.780	1.4905	4.125
	Side		6.25	2.4606	2.66	0.7874	4.508	1.5582	4.50
	Hip		5.75	2.2637	2.25	0.8858	4.097	1.6129	4.125
	Belly		4.50	1.7716	1.75	0.6889	3.541	1.3940	2.375
184	Shoulder		6.00	2.3622	2.50	0.9842	4.122	1.6228	6.875
	Side		6.25	2.4606	3.00	1.1811	4.574	1.8007	6.25
	Hip		6.625	2.6063	2.75	1.0826	4.865	1.9153	8.00
	Belly		5.50	2.1653	3.00	1.1811	4.273	1.6822	3.625
	Average		5.933	2.3358	2.533	0.9972	4.268	1.6803	5.073
	Two years:								
175	Shoulder		5.75	2.2637	1.75	0.6889	4.493	1.7688	2.875
	Side		6.875	2.7066	2.125	0.8366	4.613	1.8161	3.25
	Hip		6.875	2.7066	2.875	1.1318	5.165	2.0334	2.75
	Belly		6.25	2.4606	3.125	1.2303	4.354	1.7141	3.00
176	Shoulder		5.50	2.1653	2.875	1.1318	4.206	1.6559	4.125
	Side		6.00	2.3622	3.00	1.1811	4.310	1.6968	4.75
	Hip		6.50	2.5590	2.00	0.7874	4.377	1.7232	4.125
	Belly		5.25	2.0669	1.75	0.6889	4.078	1.6055	2.625
186	Shoulder		6.00	2.3622	3.00	1.1811	4.506	1.7740	6.00
	Side		5.66	2.2283	2.25	0.8858	4.273	1.6822	6.75
	Hip		7.125	2.8051	1.50	0.5905	4.580	1.8031	9.00
	Belly		6.50	2.5590	3.00	1.1811	4.591	1.8035	3.25
	Average		6.264	2.4661	2.438	0.9598	4.461	1.7562	4.458
	Ewe.								
	Lambs:								
171	Shoulder		5.25	2.0669	1.625	0.6397	3.721	1.4649	6.00
	Side		5.50	2.1653	1.25	0.4921	3.496	1.3402	6.50
	Hip		5.875	2.3129	2.00	0.7874	4.131	1.6264	6.00
	Belly		4.75	1.8700	1.875	0.7381	3.675	1.4468	3.625
188	Shoulder		5.625	2.2145	2.50	0.9842	4.278	1.6839	10.25
	Side		5.625	2.2145	2.00	0.7874	4.098	1.6132	10.50
	Hip		6.00	2.3622	2.00	0.7874	4.243	1.6712	9.875
	Belly		5.875	2.3129	2.00	0.7874	4.144	1.6310	8.00
187	Shoulder		5.75	2.2637	1.75	0.6889	3.917	1.5421	7.75
	Side		7.00	2.7559	2.00	0.7874	4.051	1.5948	8.50
	Hip		6.25	2.4606	2.25	0.8858	4.545	1.7893	7.50
	Belly		4.875	1.9192	2.00	0.7874	3.574	1.4070	4.00
	Average		5.698	2.2433	1.938	0.7629	3.982	1.5677	7.375
	Six months:								
37	Shoulder		6.33	2.4921	2.00	0.7874	4.237	1.6681	9.50
	Side		6.00	2.3622	2.00	0.7874	4.210	1.6574	9.75
	Hip		7.00	2.7559	3.33	1.3110	4.995	1.9665	9.00
	Belly		6.33	2.4921	2.33	0.9173	4.416	1.7385	5.75
	Average		6.415	2.5255	2.415	0.9507	4.465	1.7578	8.50
	One year:								
75	Shoulder		5.66	2.2283	2.66	1.0472	4.088	1.6094	4.50
	Side		6.00	2.3622	2.00	0.7874	4.330	1.7283	4.75
	Hip		5.66	2.2283	3.00	1.1811	4.519	1.7786	5.25
	Belly		7.00	2.7559	2.66	1.0472	4.185	1.6279	3.50
179	Shoulder		5.875	2.3129	1.875	0.6981	4.25	1.6732	3.875
	Side		6.625	2.6082	1.75	0.6889	4.574	1.8007	4.50
	Hip		6.50	2.5590	2.50	0.9842	5.198	2.0464	3.875
	Belly		6.00	2.3622	2.50	0.9842	4.099	1.6137	3.00
180	Shoulder		5.50	2.1653	2.33	0.9173	3.831	1.5082	4.00
	Side		6.00	2.3622	3.00	1.1811	4.376	1.7236	4.125
	Hip		6.00	2.3622	2.50	0.9842	4.264	1.6787	4.125
	Belly		5.00	1.9685	2.625	1.0334	3.923	1.5444	2.00
	Average		5.985	2.3562	2.443	0.9618	4.054	1.5960	3.958

Catalogue number of sample.	Portion of fleece represented.	No. of crimp per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	COTSWOLD—cont'd.								
	Ewe—Cont'd.								
	Two years:								
177	Shoulder		5.75	2.2637	2.00	0.7874	3.631	1.4291	3.625
	Side		5.75	2.2637	2.00	0.7874	4.364	1.7181	4.125
	Hip		6.75	2.6574	2.375	0.9350	4.478	1.7629	4.370
	Belly		5.00	1.9685	2.872	1.1311	3.951	1.5553	2.75
178	Shoulder		5.75	2.2637	2.25	0.8858	4.183	1.6466	3.125
	Side		5.75	2.2637	2.66	0.7874	3.890	1.5314	3.25
	Hip		6.00	2.3622	2.50	0.9842	4.469	1.7659	2.875
	Belly		4.75	1.8700	2.625	1.0334	3.645	1.4350	2.125
180	Shoulder		6.50	2.5590	2.375	0.9350	4.350	1.7129	3.875
	Side		6.375	2.5098	1.750	0.6889	4.151	1.6342	4.375
	Hip		6.50	2.5590	1.875	0.7381	4.057	1.5334	5.25
181	Shoulder		6.25	2.4606	2.375	0.9350	4.253	1.6744	4.25
	Side		6.375	2.5098	2.250	0.8858	4.370	1.7992	4.00
	Hip		8.25	3.2480	2.75	1.0826	5.023	1.9775	4.375
	Belly		6.66	2.3622	3.00	1.1811	4.374	1.7220	3.375
182	Shoulder		5.625	2.2145	1.75	0.6889	4.130	1.6263	3.875
	Side		5.875	2.3129	1.50	0.5905	4.334	1.7062	3.75
	Hip		6.75	2.6574	2.00	0.7874	4.090	1.8346	4.50
	Belly		5.00	2.1653	1.125	0.4429	4.156	1.6362	3.375
190	Shoulder		5.875	2.3129	2.50	0.9842	4.104	1.6157	4.50
	Side		6.50	2.5590	3.00	1.1811	4.321	1.7011	4.125
	Hip		6.375	2.5098	1.875	0.7381	4.097	1.6114	4.75
	Belly		6.50	2.5590	2.75	1.0826	4.385	1.7263	4.00
	Average		6.120	2.4094	2.239	0.8815	4.208	1.6681	3.853
	LINCOLN.								
	Ram.								
	Lamb:								
185	Shoulder		8.75	3.4449	1.50	0.5905	3.178	1.2511	5.00
	Side		4.625	1.8208	1.875	0.7381	3.178	1.2511	3.00
	Hip		4.75	1.8700	1.875	0.7381	3.319	1.3066	5.50
	Belly		4.50	1.7716	1.50	0.5905	3.101	1.2208	2.75
	Average		5.656	2.2267	1.688	0.6645	3.194	1.2574	4.813
	1 year:								
187	Shoulder		5.33	1.9685	2.50	0.9842	3.528	1.3889	3.125
	Side		4.875	1.9192	2.375	0.9350	3.646	1.4354	2.625
	Hip		5.25	2.0669	2.125	0.8366	3.907	1.5381	2.875
	Belly		4.50	1.7716	2.50	0.9842	3.513	1.3830	1.625
	Average		4.906	1.9314	2.375	0.935	3.649	1.4366	2.563
	2 years:								
166	Shoulder		5.75	2.2637	2.125	0.8366	3.937	1.5109	2.625
	Side		5.00	1.9685	2.125	0.8366	3.616	1.4236	2.50
	Hip		6.00	2.3622	2.375	0.9351	4.276	1.6834	2.50
	Belly		4.25	1.6732	2.25	0.8858	3.216	1.2661	2.00
	Average		5.25	2.0669	2.219	0.8736	3.736	1.4708	2.406
	5½ years:								
59	Shoulder		5.833	2.2964	2.66	1.0472	4.201	1.6539	3.75
	Side		6.33	2.4921	3.00	1.1811	3.97	1.5629	3.00
	Hip		6.33	2.4921	2.66	1.0472	4.567	1.7980	3.00
	Average		6.164	2.4267	2.773	1.0917	4.346	1.7110	3.25
	Ewe.								
	Lamb:								
61	Shoulder		5.33	2.0984	2.00	0.7874	3.909	1.5389	6.25
	Side		5.33	2.0984	2.00	0.7874	3.611	1.4216	6.75
	Hip		5.66	2.2283	2.66	1.0472	4.124	1.6236	6.75
	Belly		5.33	2.0984	2.166	0.8527	3.581	1.4098	3.625
164	Shoulder		5.00	1.9685	1.875	0.7380	3.620	1.4251	6.50
	Side		5.375	2.1161	1.25	0.4921	3.544	1.3952	7.00
	Hip		5.00	1.9685	1.50	0.5905	3.522	1.3865	5.625
	Belly		3.875	1.5255	1.375	0.5413	2.964	1.1669	3.50
	Average		5.113	2.0129	1.653	0.7263	3.610	1.4212	5.75
	2 years:								
60	Shoulder		5.833	2.2964	2.33	0.9173	4.478	1.7629	3.50
	Side		7.33	2.8858	2.33	0.9173	4.488	1.7669	3.75
	Hip		6.66	2.6220	2.66	1.0472	4.318	1.6999	3.25
	Belly		5.66	2.2283	2.66	0.7874	3.897	1.5343	2.25
168	Shoulder		4.50	1.7716	1.625	0.6397	3.410	1.3425	2.875
	Side		4.875	1.9192	2.375	0.9315	3.551	1.3956	3.25
	Hip		4.75	1.8700	2.50	0.9842	3.988	1.4322	2.875
	Belly		4.25	1.6732	2.00	0.7874	3.53	1.3897	1.75
169	Shoulder		5.00	1.9685	1.50	0.5905	3.824	1.5055	2.625
	Side		5.00	1.9685	2.375	0.9315	3.553	1.5169	2.75
	Hip		5.375	2.1161	2.00	0.7874	3.917	1.5421	2.875
	Belly		5.25	2.0669	2.50	0.9842	3.695	1.4547	1.625
	Average		5.319	2.094	2.183	0.8594	3.883	1.5287	2.779

TABLE VI.—*Individual extremes and averages, showing influence of age upon fineness*—Continued.

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	SOUTHDOWN.								
	Ram.								
	Lamb:								
138		.....	3.75	1.4763	1.25	0.4921	2.58	1.0157	1.1875
139		.....	4.75	1.8700	1.625	0.6397	2.745	1.0807	2.00
140		.....	4.25	1.6732	1.75	0.6889	2.449	0.9641	1.75
	Average	.....	4.25	1.6732	1.542	0.6070	2.591	1.0200	1.6458
	1 year:								
135		.....	4.25	1.6732	0.875	0.3444	2.996	1.1795	1.375
136		.....	3.875	1.5255	1.50	0.5905	2.696	1.0614	1.00
137		.....	5.50	2.1653	2.00	0.7874	3.209	1.2635	1.50
	Average	.....	4.542	1.7881	1.456	0.5730	2.967	1.1681	1.292
	2 years:								
62	Shoulder	12	4.66	1.8346	2.00	0.7874	3.063	1.2059	1.375
	Side	12	4.66	1.8346	2.00	0.7874	3.274	1.2889	1.50
	Hip	.....	4.66	1.8346	2.33	0.9173	3.186	1.2543	1.00
	Belly	.....	4.33	1.7047	2.00	0.7874	3.024	1.1905	.....
133		.....	3.875	1.5255	1.125	0.4429	2.823	1.1114	1.50
	Average	12	4.437	1.7468	1.891	9.7444	3.098	1.2196	1.344
	3 years:								
132		.....	4.00	1.5748	1.75	0.6889	2.815	1.1082	1.125
	4 years:								
134		.....	4.75	1.8700	1.375	0.5413	3.233	1.2728	1.625
	Ewe.								
	Lamb:								
147		.....	4.09	1.5748	1.375	0.5413	2.663	1.0484	1.625
148		.....	4.875	1.9192	1.25	0.4921	2.911	1.1460	1.625
149		.....	4.50	1.7716	1.375	0.5413	2.667	1.0499	2.00
	Average	.....	4.458	1.7551	1.333	0.5248	2.747	1.0814	1.75
	6 months:								
95	Shoulder	14	4.00	1.5748	1.66	0.6535	2.496	0.9826	1.50
	Side	14	3.33	1.3110	1.66	0.6535	2.496	0.9826	1.4375
	Hip	12	4.66	1.8346	1.66	0.6535	2.777	1.0933	1.75
	Belly	.....	4.00	1.5748	1.66	0.6535	2.807	1.1051	1.5625
	Average	13.333	3.998	1.5740	1.66	0.6535	2.644	1.0409	1.5625
	1 year:								
63	Shoulder	14	4.00	1.5748	2.00	0.7874	2.946	1.1598	1.25
	Side	14	4.66	1.8346	1.33	0.5236	3.013	1.1862	.....
	Hip	.....	5.233	2.0602	1.66	0.6535	3.235	1.2736	.....
	Belly	.....	4.00	1.5748	2.00	0.7874	2.912	1.464	0.75
92	Shoulder	12	6.33	2.4921	2.33	0.9173	3.607	1.4200	1.375
	Side	.....	4.75	1.8700	1.50	0.5905	2.705	1.0649	1.00
	Hip	12	5.33	2.0984	1.66	0.6535	2.965	1.1673	1.375
	Belly	16	4.66	1.8346	2.00	0.7874	2.872	1.1307	0.875
94	Shoulder	14	4.66	1.8346	2.00	0.7874	2.743	1.0799	1.25
	Side	14	4.00	1.5748	1.66	0.6535	2.94	1.1574	1.125
	Hip	.....	5.66	2.2283	2.00	0.7874	3.501	1.3783	2.00
	Belly	.....	4.33	1.7047	2.00	0.7874	2.918	1.1488	0.875
144		.....	5.00	1.9685	2.00	0.7874	3.005	1.1830	1.75
145		.....	4.25	1.6732	2.00	0.7874	3.084	1.2141	1.50
146		.....	4.50	1.7716	2.00	0.7874	2.849	1.1216	1.375
	Average	13.714	4.758	1.8732	1.876	0.7385	3.020	1.1889	1.269
	2 years:								
91	Shoulder	12	4.25	1.6732	1.75	0.6889	3.193	1.2570	1.50
	Side	.....	4.66	1.8346	2.00	0.7874	3.128	1.2314	1.1875
	Hip	12	4.66	1.8346	2.00	0.7874	3.316	1.3055	1.5625
	Belly	14	3.33	1.3110	1.66	0.6535	2.77	1.0905	0.875
141		.....	4.75	1.8700	1.50	0.5905	2.831	1.1145	1.125
142		.....	4.00	1.5748	1.625	0.6397	2.692	1.0598	1.00
143		.....	5.00	1.9685	1.75	0.6889	3.020	1.1889	1.25
	Average	12.667	4.378	1.7236	1.755	0.6909	2.993	1.1783	1.214
	3 years:								
93	Shoulder	12	4.33	1.7047	2.00	0.7874	2.94	1.1575	1.1875
	Side	14	4.00	1.5748	1.66	0.6535	2.947	1.1602	1.00
	Hip	12	5.00	1.9685	2.33	0.9173	3.111	1.2248	1.125
	Belly	12	4.33	1.7047	2.00	0.7874	2.788	1.0976	.....
	Average	12.50	4.415	1.7381	1.998	0.7866	2.947	1.1602	1.104
	OXFORD.								
	Ram.								
	Lamb:								
155		.....	6.00	2.3622	1.50	0.5905	3.356	1.3212	3.00
	OXFORD—continued.								
	Ram—Continued.								
	1 year:								
66	Shoulder	.....	5.33	2.0984	2.00	0.7874	3.667	1.4436	2.50
	Side	.....	6.00	2.3622	1.66	1.0472	4.015	1.5803	3.625
	Hip	.....	6.00	2.3622	2.00	0.7874	3.957	1.5578	3.75
	Belly	.....	5.33	2.0984	2.33	0.9173	3.60	1.4173	2.25
152		.....	6.875	2.7066	2.375	0.9350	4.046	1.5929	2.75
153		.....	5.75	2.2637	1.875	0.7381	3.704	1.4582	2.75
154		.....	7.00	2.7559	3.125	1.2303	4.72	1.8582	2.875
	Average	.....	6.041	2.5783	2.338	0.9204	3.958	1.5582	2.928
	2 years:								
65	Shoulder	.....	5.66	2.2283	2.00	0.7874	3.942	1.5519	1.125
	Side	.....	6.66	2.6220	2.66	1.0472	3.915	1.5413	2.00
	Hip	.....	6.66	2.6220	2.66	1.0472	4.007	1.5775	1.75
	Belly	.....	6.00	2.3622	2.66	1.0472	5.624	1.4267	2.50
150		.....	7.125	2.8051	2.75	1.0826	4.806	1.8921	2.50
	Average	.....	6.421	2.5279	2.546	1.0023	4.459	1.7553	1.975
	6 years:								
151		.....	7.625	3.0019	2.00	0.7874	3.923	1.5444	2.00
	Ewe.								
	Lamb:								
161		.....	5.125	2.0177	1.25	0.492	3.452	1.3590	3.50
	1 year:								
64	Shoulder	.....	6.00	2.3622	2.33	1.3110	4.542	1.7881	3.00
	Side	.....	6.33	2.4921	2.33	0.9173	3.363	1.7177	2.50
	Hip	.....	6.66	2.6220	3.33	1.3110	5.038	1.9834	2.75
	Belly	.....	6.00	2.3622	2.66	1.0472	4.24	1.6692	1.75
158		.....	5.875	2.3129	3.125	1.2303	4.51	1.7755	2.75
159		.....	5.50	2.1653	1.865	0.7381	3.797	1.4948	3.00
160		.....	6.25	2.4606	2.125	0.8366	4.161	1.6381	2.50
	Average	.....	6.088	2.3968	2.682	1.0559	4.379	1.7240	2.607
	2 years:								
156		.....	6.25	2.4600	3.625	1.4271	4.539	1.7870	2.75
157		.....	5.00	1.9685	2.00	0.7874	3.766	1.4826	2.75
	Average	.....	5.625	2.2145	2.813	1.1074	4.153	1.6350	3.75
	MERINO.								
	Ram.								
	Lamb:								
79	Shoulder	[illegible]	4.25	1.6732	1.50	0.5905	2.036	0.8015	1.50
	Side	20	3.50	1.3779	1.50	0.5905	2.023	0.7964	1.50
	Hip, top of wrinkle.	14	4.50	1.7716	1.75	0.6889	2.643	1.0405	1.25
	Hip, between wrinkle	16	4.00	1.5748	1.50	0.5905	2.357	0.9279	1.375
	Belly	20	3.00	1.1811	1.50	0.5905	2.155	0.8484	1.50
	Average	18	3.85	1.5157	1.55	0.6102	2.242	0.8826	1.425
	5 months:								
[illegible]	Shoulder	20	3.00	1.1811	1.50	0.5905	2.170	0.8543	1.37[illegible]
	Side	20	4.00	1.5748	1.25	0.4921	2.191	[illegible]	1.125
	Hip	16	3.50	1.3779	1.75	0.6889	2.366	0.9314	1.375
	Belly	20	3.00	1.1811	1.25	0.4921	2.086	0.8212	1.375
	Average	19	3.375	1.3287	1.438	0.5661	2.203	0.8673	1.3125
	1 year:								
51	Shoulder	[illegible]	4.50	1.7716	1.50	0.5905	2.219	[illegible].8736	1.75
	Side	[illegible]	3.50	1.3779	1.50	0.5905	2.213	0.8712	1.4375
	Hip	16	4.00	1.5748	1.25	0.4921	2.141	0.8429	1.50
	Belly	[illegible]	3.25	1.2795	1.25	0.4921	2.205	0.8681	1.625
[illegible]	Shoulder	20	3.25	1.2795	1.50	0.5905	2.083	0.8200	1.50
	Side	20	3.00	1.1811	1.50	0.5905	2.296	0.9039	1.25
	Hip	20	3.50	1.3779	1.25	0.4921	2.220	0.8740	1.375
	Belly	20	3.50	1.3779	2.00	0.7874	2.513	0.9893	1.25
89	Shoulder	20	3.25	1.2795	1.25	0.4921	2.091	0.7889	1.4375
	Side	20	4.00	1.5748	1.50	0.5905	2.026	0.7976	1.25
	Hip	20	3.25	1.2795	1.25	0.4921	1.956	0.7700	1.25
	Belly	[illegible]	3.00	1.1811	1.25	0.4921	2.009	0.7909	1.25
[illegible]	S. Archer's wool, top of wrinkle	14	5.00	1.9685	1.625	0.6397	2.562	1.0086	2.50
	S. Archer's wool, between wrinkle.	20	3.25	1.2795	1.50	0.5905	2.094	0.8244	3.25
	Average	19	3.589	1.4129	1.438	0.5661	2.182	0.8592	1.616
	2 years:								
30	Neck, top of wrinkle	[illegible]	4.25	1.6732	2.00	0.7874	2.822	1.1110	1.25
	Neck, bet. wrinkle.	16	3.50	1.3779	1.75	0.6889	2.466	0.9708	1.625
	Shoulder	[illegible]	2.75	1.0826	1.75	0.6889	2.252	[illegible].8866	1.50

TABLE VI.—*Individual extremes and averages, showing influence of age upon fineness*—Continued.

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	MERINO—continued.								
	Ram—Continued.								
	2 years—cont'd.								
	Side	18	3.00	1.1811	1.50	0.5905	2.143	0.8436	1.3125
	Hip	14	3.25	1.2795	1.75	0.6889	2.290	0.9014	1.75
	Belly	20	3.25	1.2795	1.50	0.5905	2.202	0.8669	1.375
18	Shoulder, top of wrinkle	16	4.50	1.7716	1.25	0.4921	2.374	0.9346	1.125
	Shoulder, between wrinkle	16	3.50	1.3779	1.75	0.5905	2.302	0.9062	1.50
	Side	16	3.75	1.4763	1.00	0.3937	2.215	0.8719	1.375
	Hip	16	3.75	1.4763	1.50	0.5905	2.391	0.9413	1.75
	Belly	16	4.00	1.5748	1.50	0.5905	2.369	0.9326	1.50
26	Shoulder	22	2.50	0.9842	1.50	0.5905	1.896	0.7464	1.4375
	Shoulder, top of wrinkle		4.00	1.5748	1.50	0.5905	2.136	0.9116	1.25
	Shoulder, between wrinkle	20	3.00	1.1811	1.25	0.4921	1.836	0.7226	1.50
	Side	22	2.50	0.9842	1.25	0.4921	1.816	0.7149	1.375
	Hip	20	2.75	0.8858	1.00	0.3937	1.697	0.6681	1.3125
	Hip, top of wrinkle	14	5.00	1.9685	1.25	0.4921	2.698	1.0627	1.1875
	Hip, bet. wrinkle	16	3.50	1.3779	1.25	0.4921	2.027	0.7980	0.875
	Belly A	20	2.50	0.9842	1.50	0.5905	1.836	0.7226	1.25
	Belly B	20	3.00	1.1811	1.50	0.5905	2.013	0.7925	1.00
71	Shoulder	20	3.50	1.3779	1.75	0.6889	2.283	0.8988	1.50
	Side	20	3.00	1.1811	1.50	0.5905	2.128	0.8377	1.25
	Hip	20	3.50	1.3779	1.50	0.5905	2.290	0.9015	1.125
	Belly	16	3.50	1.3779	1.75	0.6889	2.383	0.9381	1.375
8	S. Archer's wools	20	3.125	1.2303	1.75	0.6889	2.224	0.8755	2.50
	Average	17.833	3.375	1.3287	1.45	0.5708	2.206	0.8685	1.380
	3 years:								
54	Shoulder, top of wrinkle	14	4.00	1.5748	1.75	0.6889	2.514	0.9897	0.875
	Shoulder, between wrinkle		3.00	1.1811	1.25	0.4921	2.008	0.7905	1.0625
	Hip, top of wrinkle		5.00	1.9685	1.75	0.6889	2.902	1.1425	0.875
	Hip, bet. wrinkle	14	3.50	1.3779	1.25	0.4921	2.208	0.8692	1.00
	Belly		3.50	1.3779	1.25	0.4921	2.108	0.8229	1.00
28	Shoulder, top of wrinkle	14	4.00	1.5748	1.00	0.3937	2.455	0.9667	1.1875
	Shoulder, between wrinkle	20	3.00	1.1811	1.25	0.4921	2.008	0.7905	1.0625
	Side	20	3.75	1.0826	1.25	0.4921	1.861	0.7326	1.0625
	Hip, top of wrinkle	16	4.25	1.6732	1.50	0.5905	2.546	1.0020	1.125
	Hip, bet. wrinkle	20	3.00	1.1811	1.25	0.4921	1.908	0.7511	1.125
	Belly	20	3.25	1.2795	1.50	0.5905	2.038	0.8023	1.1875
360		20	3.25	1.2795	1.50	0.5905	2.263	0.8909	2.75
	Average	17.556	3.542	1.3944	1.625	0.6397	2.235	0.8799	1.240
	4 years:								
47	Shoulder	20	3.00	1.1811	1.25	0.4921	2.199	0.8657	1.50
	Side	20	3.25	1.2795	1.75	0.6889	2.163	0.8515	1.1875
	Hip	20	3.50	1.3779	1.50	0.5905	2.294	0.9031	1.375
	Belly	20	3.50	1.3779	1.75	0.6889	2.361	0.9295	1.4375
73	Shoulder	20	3.50	1.3779	1.50	0.5905	2.116	0.8331	1.625
	Side	20	3.00	1.1811	1.50	0.5905	2.186	0.8606	1.375
	Hip	16	4.25	1.6732	1.25	0.4921	2.187	0.8606	1.25
	Belly	20	4.25	1.6732	1.25	0.4921	2.31	0.9212	1.50
361		20	2.875	1.1318	1.125	0.4429	2.215	0.8720	2.50
	Average	10.56	3.453	1.3614	1.431	0.5633	2.229	0.8775	1.75
	6 years:								
69	Shoulder	20	3.33	1.3110	1.33	0.5236	2.246	0.8842	1.375
	Side	20	4.00	1.5748	1.33	0.5236	2.427	0.9550	1.375
	Hip	16	5.66	2.2258	1.66	0.6535	2.752	1.0834	1.375
	Belly	20	3.66	1.4509	1.66	0.6535	2.363	0.9303	1.00
164		25	3.00	1.1811	1.25	0.4921	1.836	0.7224	1.625
164a		25	2.75	1.0826	1.00	0.3937	1.758	0.6921	2.125
	Average	21	3.567	1.4043	1.372	0.5401	2.240	0.8818	1.479
	7 years:								
90	Shoulder	20	4.00	1.5748	1.25	0.4921	2.200	0.8661	1.25
	Side	20	3.50	1.3779	1.25	0.4921	2.263	0.8909	1.125
	Hip	20	3.00	1.1811	1.50	0.5905	2.193	0.8634	1.1875
	Belly	20	3.75	1.4763	1.25	0.4921	2.343	0.9224	1.125
	Average	20	3.563	1.4027	1.313	0.5169	2.261	0.8901	1.172
	Ewe.								
	5 months:								
77	Shoulder	20	2.50	0.9842	1.50	0.5905	1.926	0.7583	1.125
	Side	20	3.00	1.1811	1.25	0.4921	1.921	0.7562	1.375
	Hip	20	4.25	1.6732	1.25	0.4921	2.200	0.8661	1.00
	Belly	20	3.50	1.3779	1.25	0.4921	1.963	0.7728	1.50
	Average	20	3.313	1.3043	1.313	0.5169	2.003	0.7885	1.25

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	MERINO—continued.								
	Ewe—Continued.								
	5½ months:								
45	Neck, top of wrinkle	16	4.50	1.5748	1.50	0.5905	2.296	0.9039	1.1875
	Neck, bet. wrinkle	16	3.25	1.2795	1.25	0.4921	2.271	0.8940	1.125
	Side	20	3.75	1.4763	1.25	0.4921	2.294	0.9031	1.375
	Hip	14	4.25	1.6732	1.50	0.5905	2.799	1.1019	1.0625
	Belly	16	3.00	1.1811	1.25	0.4921	2.173	0.8555	1.25
	Average	16	3.65	1.4370	1.35	1.5314	2.367	0.9318	1.200
	1 year:								
41	Neck	16	3.00	1.1811	1.50	0.5905	2.088	0.8220	1.75
	Side	16	3.00	1.1811	1.50	0.5905	1.977	0.7783	1.50
	Hip	16	3.81	1.1811	1.50	0.5905	2.141	0.8429	1.375
	Belly	14	4.00	1.5748	1.25	0.4921	1.993	0.7846	1.875
74	Shoulder	16	4.00	1.5748	1.50	0.5905	2.487	0.9791	1.375
	Side	18	3.50	1.3779	1.50	0.5905	2.403	0.9460	1.50
	Hip	14	6.00	2.3622	1.50	0.5905	2.470	0.9724	1.50
	Belly	20	4.00	1.5748	1.50	0.5905	2.393	0.9419	1.25
75	Shoulder	18	3.50	1.3779	1.50	0.5905	2.365	0.9311	1.50
	Side	20	3.75	1.4763	1.50	0.5905	2.263	0.8909	1.50
	Hip	16	3.75	1.4763	1.50	0.5905	2.455	0.9667	1.375
	Belly	20	4.00	1.5748	1.25	0.4921	2.423	0.9539	1.375
76	Shoulder	18	3.875	1.5255	1.50	0.5905	2.245	0.8838	1.375
	Side	20	2.75	1.0826	1.50	0.5905	2.066	0.8133	1.125
	Hip	16	4.00	1.5748	1.50	0.5905	2.216	0.8724	1.50
	Belly	20	4.00	1.5748	1.875	0.7381	2.415	0.9649	1.123
83	Shoulder	20	3.50	1.3779	1.50	0.5905	2.093	0.8240	1.25
	Side	20	4.00	1.5748	1.50	0.5905	2.123	0.8358	1.375
	Hip	16	5.25	2.0669	1.00	0.3937	2.383	0.9381	1.375
	Belly	20	4.75	1.8700	1.25	0.4921	2.500	0.9842	1.25
16	Shoulder	22	3.50	1.3779	1.00	0.3937	1.851	0.7287	1.375
	Side	22	3.50	1.3779	1.00	0.5905	2.103	0.8279	1.25
	Hip	22	3.50	1.3779	1.50	0.5905	2.083	0.8200	1.25
	Belly	20	3.00	1.1811	1.00	0.5905	2.176	0.8566	1.375
347		16	3.375	1.3287	0.75	0.2953	1.887	0.7429	3.125
348		16	3.25	1.2795	1.25	0.4921	1.971	0.7759	3.125
	Average	17.923	3.760	1.4803	1.409	0.5547	2.214	0.8716	1.529
	2 years:								
12	Shoulder	20	3.50	1.3779	1.25	0.4921	2.116	0.8330	1.375
	Side	20	3.75	1.4763	1.25	0.4921	1.884	0.7418	1.25
	Hip	20	3.25	1.2795	1.25	0.4921	2.091	0.8233	1.50
	Belly	20	3.00	1.1811	1.25	0.4921	2.094	0.8244	1.4375
57	Shoulder, top of wrinkle		4.75	1.8700	1.50	0.5905	2.405	0.9468	0.875
	Shoulder, between wrinkle	20	3.50	1.3779	1.25	0.4921	2.149	0.8460	1.0625
	Hip	20	3.25	1.2795	1.25	0.4921	2.141	0.8429	0.875
	Belly	20	3.00	1.1811	1.25	0.4921	2.158	0.8496	0.875
58	Shoulder, top of wrinkle	16	4.00	1.5748	1.50	0.5905	2.216	0.8724	1.125
	Shoulder, between wrinkle	20	3.00	1.1811	1.50	0.5905	2.020	0.7952	1.25
	Hip, top of wrinkle	18	5.00	1.9685	1.75	0.6889	2.635	1.0373	1.00
	Hip, bet. wrinkle	20	3.50	1.3779	1.25	0.4921	2.096	0.8251	1.125
	Belly	20	3.00	1.1811	1.50	0.5905	2.096	0.8193	1.125
70	Shoulder	20	3.33	1.3110	1.33	0.5236	2.119	0.8343	1.25
	Side	20	3.333	1.3110	1.33	0.5236	2.099	0.8263	1.25
	Hip	20	3.50	1.3779	1.375	0.5413	2.115	0.8326	1.125
	Belly	20	4.00	1.5748	1.50	0.5905	2.431	0.9570	1.251
89	Shoulder	22	2.75	1.0826	1.25	0.4921	1.793	0.7059	1.375
	Side	22	2.50	0.9842	1.25	0.4921	1.810	0.7125	1.375
	Hip	20	3.00	1.1811	1.00	0.3937	1.838	0.7236	1.251
	Belly	20	3.75	1.4763	1.00	0.3937	1.896	0.7463	1.375
351		20	2.375	0.9350	1.25	0.4921	1.635	0.6515	3.00
352		20	3.25	1.2795	1.25	0.4921	1.841	0.7275	2.75
353		20	2.875	1.1318	1.25	0.4921	1.887	0.7350	2.25
354		22	3.25	1.2795	1.125	0.4429	1.856	0.7307	2.75
355		20	3.375	1.3287	1.50	0.5905	2.163	0.8513	2.75
356		20	4.50	1.7716	1.375	0.5413	2.185	0.8604	2.50
357		20	3.50	1.3779	1.125	0.4429	1.899	0.7440	3.00
358		20	3.25	1.2795	1.125	0.4921	2.038	0.8020	2.25
	Average	19.929	3.415	1.344	1.307	0.5143	2.061	0.8114	1.582
	3 years:								
31	Shoulder	20	3.00	1.1811	1.50	0.5905	2.139	0.8397	1.625
	Side	18	3.50	1.3779	1.50	0.5905	2.146	0.8448	1.625
	Hip	18	3.50	1.3779	1.25	0.4921	2.316	0.9118	1.375
	Belly	20	3.03	1.1811	1.50	0.5905	2.236	0.8779	1.50
88	Shoulder	20	3.00	1.1811	1.25	0.4921	1.921	0.7562	1.125
	Side	18	3.25	1.2795	1.25	0.4921	1.976	0.7779	1.25
	Hip	20	2.75	1.0826	1.00	0.3937	1.980	0.7795	1.25
	Belly	20	4.75	1.8700	1.50	0.5905	2.238	0.8791	1.25
	Average	19	3.344	1.3165	1.344	0.5291	2.117	0.8334	1.375

TABLE VI.—*Individual extremes and averages, showing influence of age upon fineness*—Continued.

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	MERINO—continued.								
	Ewe—continued.								
	4 years:								
50	Shoulder	20	2.25	0.8858	1.25	0.4921	1.770	0.6968	1.50
	Side	22	3.50	1.3779	1.25	0.4921	1.753	0.6901	1.625
	Hip	22	2.75	1.0826	1.25	0.4921	1.873	0.7374	1.375
	Belly	20	3.00	1.1811	1.50	0.5905	2.126	0.8370	1.375
	Average	21	2.875	1.1315	1.318	0.5169	1.882	0.7409	1.469
	4½ years:								
84	Shoulder	22	3.50	1.3779	1.50	0.5905	1.953	0.7688	1.375
	Shoulder, 17 months	22	3.75	1.4763	1.25	0.4921	2.035	0.8011	3.125
	Side	22	3.50	1.3779	1.25	0.4921	1.970	0.7755	1.00
	Hip	20	4.00	1.5748	1.50	0.5905	2.201	0.8665	1.00
	Average	21.5	[illegible]	1.4519	1.375	0.5413	2.040	0.8031	1.625
	MERINO—continued.								
	Ewe—Continued.								
	5 years:								
52	Shoulder	22	2.50	0.9842	1.25	0.4921	1.733	0.6822	1.5625
	Side	22	2.75	1.0826	1.00	0.3937	1.716	0.6755	1.25
	Hip	20	2.50	0.9842	1.50	0.5905	1.869	0.7358	1.375
	Belly	20	3.25	1.2795	1.25	0.4921	1.806	0.7118	1.1875
56	Neck, top of wrinkle	18	3.50	1.3779	1.25	0.4921	2.494	0.9818	1.1875
	Shoulder, between wrinkle	20	3.00	1.1811	1.00	0.3937	2.013	0.7925	1.125
	Side	20	3.00	1.1811	1.25	0.4921	2.152	0.8472	1.8125
	Hip, top of wrinkle	16	4.00	1.5748	1.50	0.5905	2.363	0.9303	1.00
	Hip, bet. wrinkle	20	4.00	1.5748	1.00	0.3937	2.255	0.8877	0.75
	Belly	20	2.75	1.0826	1.50	0.5905	2.049	0.8066	0.9375
	Average	19.6	3.125	1.2303	1.25	0.4921	2.045	0.8051	1.219

TABLE VII.—*General extremes and averages, showing influence of age upon fineness.*

Ages represented.	No. of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
		In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
COTSWOLD.								
Ram.								
Lamb		5.219	2.0547	1.850	0.7318	3.726	1.4669	6.125
Six months		5.915	2.3287	2.60	0.7874	4.171	1.6421	7.25
One year		5.933	2.3358	2.533	0.9972	4.268	1.6803	5.073
Two years		6.264	2.4661	2.438	0.9596	4.461	1.7562	4.458
Ewe.								
Lamb		5.608	2.2433	1.938	0.7629	3.982	1.5677	7.375
Six months		6.415	2.5255	2.415	0.9507	4.465	1.7578	8.50
One year		5.985	2.3562	2.443	0.9618	4.054	1.5963	3.958
Two years		6.120	2.4094	2.239	0.8815	4.290	1.6889	3.393
LINCOLN.								
Ram.								
Lamb		5.656	2.2267	1.688	0.6645	3.194	1.2574	4.813
One year		4.906	1.9314	2.375	0.9350	3.649	1.4366	2.563
Two years		5.25	2.0669	2.219	0.8736	3.736	1.4708	2.406
Five and one-half years		6.164	2.4267	2.773	1.0917	4.248	1.7110	3.25
Ewe.								
Lamb		5.113	2.0129	1.853	0.7295	3.610	1.4212	5.75
Two years		5.319	2.0940	2.183	0.8594	3.883	1.5287	2.779
SOUTHDOWN.								
Ram.								
Lamb		4.25	1.6732	1.542	0.6070	2.591	1.0200	1.6458
One year		4.542	1.7881	1.456	0.5730	2.967	1.6810	1.293
Two years	12	4.437	1.7468	1.891	0.7444	3.098	1.2196	1.344
Three years		4.00	1.5748	1.75	0.6889	2.815	1.1082	1.125
Four years		4.75	1.8700	1.375	0.5413	3.233	1.2728	1.625
Ewe.								
Lamb		4.458	1.7551	1.333	0.5248	2.747	1.0814	1.75
Six months	13.333	3.998	1.5740	1.66	0.6535	2.644	1.0409	1.5625
One year	13.714	4.758	1.8732	1.876	0.7385	3.020	1.1889	1.269
Two years	12.667	4.378	1.7236	1.755	0.6909	2.993	1.1783	1.214
Three years	12.50	4.415	1.7381	1.998	0.7866	2.947	1.1602	1.104
OXFORD.								
Ram.								
Lamb		6.00	2.3622	1.50	0.5905	3.356	1.3212	3.00
One year		6.041	2.3783	2.338	0.9204	3.958	1.5582	2.928
Two years		6.421	2.5279	2.546	1.0023	4.459	1.7555	1.975
Six years		7.625	3.0019	2.000	0.7874	3.923	1.5444	2.99
Ewe.								
Lamb		5.125	2.0177	1.25	0.4921	3.452	1.3590	3.38
One year		6.088	2.3968	2.682	1.0559	4.379	1.7240	2.607
Two years		5.625	2.2145	2.813	1.1074	4.153	1.6350	2.75
MERINO.								
Ram.								
Lamb	18	3.850	1.5157	1.55	0.6102	2.242	0.8826	1.421
Five months	19	3.375	1.3287	1.438	0.5661	2.203	0.8673	1.3125
One year	19	3.589	1.4129	1.438	0.5661	2.182	0.8590	1.616
Two years	17.688	3.375	1.3287	1.45	0.5708	2.206	0.8685	1.38
Three years	17.556	3.542	1.3944	1.625	0.6397	2.235	0.8799	1.24
Four years	19.56	3.458	1.3614	1.431	0.5633	2.229	0.8775	1.75
Six years	21	3.567	1.4043	1.372	0.5401	2.243	0.8831	1.479
Seven years	20	3.563	1.4027	1.313	0.5169	2.261	0.8901	1.172
Ewe.								
Five months	20	3.313	1.3043	1.313	0.5169	2.003	0.7885	1.25
Five and one-half months	16	3.65	1.4370	1.38	0.5314	2.367	0.9318	1.20
One year	17.923	3.76	1.4803	1.407	0.5547	2.274	0.8716	1.529
Two years	19.929	3.415	1.3440	1.307	0.5145	2.061	0.8114	1.582
Three years	19	3.444	1.3165	1.343	0.5291	2.117	0.8324	1.375
Four years	21	2.875	1.1318	1.313	0.5169	1.882	0.7409	1.469
Four and one-half years	21.50	3.688	1.4519	1.375	0.5413	2.048	0.8031	1.625
Five years	19.60	3.125	1.2303	1.25	0.4921	2.045	0.8051	1.219

TABLE VIII.—*Individual extremes and averages, showing influence of folds upon fineness.*

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	MERINO.								
30	Neck, top of wrinkle	16	4.25	1.6732	2.00	0.7874	2.822	1.1110	1.25
45	do	16	4.00	1.5748	1.50	0.5905	2.296	0.9039	1.1875
48	Shoulder, top of wrinkle	16	4.50	1.7716	1.25	0.4921	2.374	0.9346	1.125
53	do		4.00	1.5748	1.50	0.5905	2.136	0.9118	1.125
	Hip, top of wrinkle	14	5.00	1.9685	1.25	0.4921	2.608	1.0267	1.1875
54	Shoulder, top of wrinkle	14	4.00	1.5748	1.75	0.6889	2.514	0.9897	0.875
	Hip, top of wrinkle		5.00	1.9685	1.75	0.6889	2.902	1.1425	0.875
55	Shoulder, top of wrinkle	14	4.00	1.5748	1.00	0.3937	2.455	0.9667	1.1875
	Hip, top of wrinkle	16	4.25	1.6732	1.50	0.5905	2.291	0.9019	1.125
56	Neck, top of wrinkle	16	3.50	1.3779	1.25	0.4921	2.494	0.9818	1.1875
	Hip, top of wrinkle	16	4.00	1.5748	1.50	0.5905	2.363	0.9303	1.00
57	Shoulder, top of wrinkle		4.75	1.8700	1.50	0.5905	2.405	0.9468	0.875
58	do	16	4.00	1.5748	1.50	0.5905	2.216	0.8724	1.125
	Hip, top of wrinkle	16	5.00	1.9685	1.75	0.6889	2.635	1.0373	1.00
79	do	14	4.50	1.7716	1.75	0.6889	2.643	1.0405	1.125
		15.333	4.317	1.[illegible]	1.517	0.5972	2.477	0.9751	1.100
30	Neck, between wrinkle	16	3.50	1.3779	1.75	0.6889	2.466	0.9708	1.625
45	do	16	3.25	1.2795	1.25	0.4921	2.271	0.8942	1.125
48	Shoulder, between wrinkle	16	3.50	1.3779	1.50	0.5905	2.302	0.9062	1.50
53	do	20	3.00	1.1811	1.25	0.4921	1.850	0.7283	1.00
	Hip, between wrinkle	16	3.50	1.3779	1.25	0.4921	2.027	0.7980	0.875
54	Shoulder, between wrinkle		3.00	1.1811	1.25	0.4921	2.008	0.7905	1.0625
	Hip, between wrinkle	14	3.50	1.3779	1.25	0.4921	2.208	0.8692	1.00
55	Shoulder, between wrinkle	20	3.00	1.1811	1.25	0.4921	2.008	0.7905	1.0625
	Hip, between wrinkle	20	3.00	1.1811	1.25	0.4921	1.908	0.7511	1.125
56	Shoulder, between wrinkle	20	3.00	1.1811	1.00	0.3937	2.013	0.7925	1.125
	Hip, between wrinkle	20	4.00	1.5748	1.00	0.3937	2.255	0.8877	0.75
57	Shoulder, between wrinkle	20	3.50	1.3779	1.25	0.4921	2.149	0.8460	1.0625
58	do	20	3.00	1.1811	1.50	0.5905	2.030	0.7992	1.25
	Hip, between wrinkle	20	3.50	1.3779	1.25	0.4921	2.096	0.8251	1.125
79	do	16	4.00	1.5748	1.50	0.5905	2.357	0.9279	1.375
		18.143	3.35	1.3188	1.30	0.5118	2.130	0.8385	1.1375

TABLE IX.—*Individual extremes and averages, showing influence of folds upon fineness in different sexes and portions of fleece.*

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	MERINO.								
	Ram.								
30	Neck, top of wrinkle	18	4.23	1.6732	2.00	0.7874	2.822	1.1110	1.25
48	Shoulder, top of wrinkle	16	4.50	1.7716	1.25	0.4921	2.374	0.9346	1.125
53	....do		4.00	1.5748	1.50	0.5905	2.136	0.9118	1.25
54	....do	14	4.00	1.5748	1.75	0.6889	2.514	0.9897	0.875
55	....do	14	4.00	1.5748	1.00	0.3937	2.455	0.9667	1.1875
	Average	14.667	4.125	1.6240	1.375	0.5413	2.370	0.9330	1.109
28	Hip, top of wrinkle	14	5.00	1.9685	1.25	0.4921	2.608	1.0267	1.1875
54	....do		5.00	1.9685	1.75	0.6889	2.902	1.1425	0.875
55	....do	16	4.25	1.6732	1.50	0.5905	2.291	0.9019	1.125
79	....do	14	4.50	1.7716	1.75	0.6889	2.643	1.0405	1.25
	Average	14.667	4.688	1.8456	1.563	0.6153	2.611	1.0279	1.109
30	Neck, between wrinkle	18	3.50	1.3779	1.75	0.6889	2.466	0.9708	1.625
48	Shoulder, between wrinkle	16	3.50	1.3779	1.50	0.5905	2.302	0.9062	1.50
53	....do	20	3.00	1.1811	1.25	0.4921	1.850	0.7288	1.00
54	....do		3.00	1.1811	1.25	0.4921	2.008	0.7905	1.0625
55	....do	20	3.00	1.1811	1.25	0.4921	2.008	0.7905	1.0625
	Average	18.667	3.125	1.2303	1.313	0.5169	2.042	0.8039	1.156
53	Hip, between wrinkle	16	3.50	1.3779	1.25	0.4921	2.027	0.7980	0.875
54	....do	14	3.50	1.3779	1.25	0.4921	2.208	0.8692	1.00
55	....do	20	3.00	1.1811	1.25	0.4921	1.908	0.7511	1.125
79	....do	16	4.00	1.5748	1.50	0.5905	2.357	0.9279	1.375
	Average	16.50	3.50	1.3779	1.313	0.5169	2.125	0.8366	1.094
	Ewe.								
45	Neck, top of wrinkle	16	4.00	1.5748	1.50	0.5905	2.296	0.9039	1.1875
56	....do	18	3.50	1.3779	1.25	0.4921	2.494	0.9818	1.1875
	Average	16	3.75	1.4763	1.375	0.5413	2.395	0.9429	1.1875
57	Shoulder, top of wrinkle		4.75	1.8700	1.50	0.5905	2.405	0.9468	0.875
58	....do	16	4.00	1.5748	1.50	0.5905	2.216	0.8724	1.125
	Average	16	4.375	1.7224	1.50	0.5905	2.311	0.9098	1.00
56	Hip, top of wrinkle	18	4.00	1.5748	1.50	0.5905	2.363	0.9301	1.00
58	....do	16	5.00	1.9685	1.75	0.6889	2.635	1.0373	1.00
	Average	16	4.50	1.7716	1.625	0.6397	2.499	0.9838	1.00
45	Neck, between wrinkle	16	3.25	1.2795	1.25	0.4921	2.271	0.8942	1.125
56	Shoulder, between wrinkle	20	3.00	1.1811	1.00	0.3937	2.013	0.7925	1.125
57	....do	20	3.50	1.3779	1.25	0.4921	2.149	0.8460	1.0625
58	....do	20	3.00	1.1811	1.50	0.5905	2.030	0.7992	1.25
	Average	20	3.167	1.2368	1.25	0.4921	2.064	0.8125	1.146
56	Hip, between wrinkle	20	4.00	1.5748	1.00	0.3937	2.255	0.8877	0.75
58	....do	20	3.50	1.3779	1.25	0.4921	2.096	0.8251	1.125
	Average	20	3.75	1.4763	1.125	0.4429	2.171	0.8547	0.9375

TABLE X.—*General extremes and averages, showing influence of folds upon fineness.*

Portion of fleece represented.	Average number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
		In centimillimeters.	In thousandths of an inch.	In centimillimeters.	In thousandths of an inch.	In centimillimeters.	In thousandths of an inch.	
MERINO.								
Top of wrinkle, whole fleece	15.333	4.310	1.6996	1.517	0.5972	2.477	0.9751	1.10
Between wrinkle, whole fleece	18.143	3.350	1.3188	1.300	0.5118	2.130	0.8385	1.1375
Ram.								
Top of wrinkle:								
Whole fleece	14.857	4.389	1.7279	1.528	0.6015	2.556	1.0062	1.125
Neck	16.00	4.250	1.6732	2.000	0.7874	2.822	1.1110	1.25
Shoulder	14.667	4.125	1.6240	1.375	0.5413	2.371	0.9334	1.109
Hip	14.669	4.688	1.8456	1.563	0.6153	2.611	1.0279	1.109
Between wrinkle:								
Whole fleece	17.25	3.333	1.3122	1.361	0.5358	2.137	0.8413	1.181
Neck	16	3.50	1.3779	1.75	0.6889	2.466	0.9708	1.625
Shoulder	18.667	3.125	1.2303	1.313	0.5169	2.042	0.8039	1.156
Hip	16.50	3.50	1.3379	1.313	0.5169	2.125	0.8366	1.094
Ewe.								
Top of wrinkle:								
Whole fleece	16	4.208	1.6566	1.50	0.5905	2.402	0.9456	1.0625
Neck	16	3.75	1.4763	1.375	0.5413	2.395	0.9429	1.1875
Shoulder	16	4.375	1.7224	1.50	0.5905	2.311	0.9098	1.00
Hip	16	4.50	1.7716	1.625	0.6397	2.499	0.9838	1.00
Between wrinkle:								
Whole fleece	19.333	3.375	1.3287	1.208	0.4755	2.137	0.8413	1.073
Neck	16	3.250	1.2795	1.25	0.4621	2.271	0.8942	1.125
Shoulder	20	3.167	1.2468	1.25	0.4921	2.064	0.8125	1.146
Hip	20	3.75	1.4763	1.125	0.4429	2.171	0.8547	1.0375

TABLE XI.—*Individual extremes and averages showing relation of fineness to crimp.*

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	SOUTHDOWN.								
	Ram.								
62	Shoulder	12	4.66	1.8346	2.33	0.7874	3.063	1.2059	1.375
62	Side	12	4.66	1.8346	2.00	0.7874	3.274	1.2889	1.50
	Average	12	4.66	1.8346	2.00	0.7874	3.228	1.2712	1.4375
	Ewe.								
91	Shoulder	12	4.25	1.6732	1.75	0.6889	3.193	1.2570	1.50
92	... do	12	6.33	2.4921	2.33	0.9172	3.607	1.4200	1.375
93	....do	12	4.33	1.7047	2.33	0.7874	2.940	1.1574	1.1875
	Average	12	4.97	1.9566	2.03	0.7992	3.246	1.2779	1.3542
91	Hip	12	4.66	1.8346	2.00	0.7874	3.316	1.3055	1.5625
92	....do	12	5.33	2.0984	1.66	0.6535	2.965	1.1673	1.375
93	....do	12	5.00	1.9685	2.33	0.9173	3.111	1.2248	1.125
95	....do	12	4.66	1.8346	1.66	0.6535	2.177	0.8571	1.75
	Average	12	4.91	1.9330	1.91	0.7519	2.892	1.1385	1.4531
93	Belly	12	4.33	1.7047	2.00	0.7874	2.788	1.0976	
	Final average	12	4.82	1.8976	1.97	0.7755	3.072	1.2094	1.4172
63	Shoulder	14	4.00	1.5748	2.00	0.7874	2.940	1.1598	1.25
94	....do	14	4.66	1.8346	2.00	0.7874	2.743	1.0799	1.25
95	....do	14	4.00	1.5748	1.66	0.6535	2.496	0.9826	1.50
	Average	14	4.22	1.6614	1.89	0.7440	2.727	1.0736	1.33
63	Side	14	4.66	1.8346	1.33	0.5236	3.013	1.1862	
94	....do	14	4.00	1.5748	1.66	0.6535	2.947	1.1602	1.00
94	....do	14	4.00	1.5748	1.66	0.6535	2.940	1.1574	1.125
95	....do	14	3.33	1.3110	1.66	0.6535	2.496	0.9826	1.4375
	Average	14	3.99	1.5708	1.58	0.6220	2.649	1.1216	1.1875
91	Belly	14	3.33	1.3110	1.66	0.6535	2.77	1.0905	0.875
	Final average	14	4.49	1.7677	1.70	0.6692	2.793	1.0998	1.062
32	Belly	16	4.66	1.8346	2.00	0.7874	2.872	1.1307	0.875
	MERINO.								
	Ram.								
54	Shoulder, top of wrinkle	14	4.00	1.5748	1.75	0.6889	2.519	0.9917	0.815
55	....do	14	4.00	1.5748	1.00	0.3937	2.455	0.9667	1.1875
	Average	14	4.00	1.5748	1.375	0.5413	2.487	0.9791	1.0313
56	Hip	14	3.25	1.2795	1.75	0.6889	2.294	0.9031	1.75
53	Hip, top of wrinkle	14	5.00	1.9685	1.25	0.4921	2.608	1.0267	1.1875
54	Hip, between wrinkle	14	3.50	1.3779	1.25	0.4921	2.208	0.8693	1.00
79	Hip, top of wrinkle	14	4.50	1.7716	1.75	0.6889	2.643	1.0405	1.25
	Average	14	4.06	1.5984	1.50	0.5905	2.436	0.9590	1.297
349	Top of wrinkle	14	5.00	1.9685	1.625	0.6397	2.562	1.0086	2.50
	Final average	14	4.32	1.7007	1.49	0.5866	2.469	1.0429	1.39
59	Neck, top of wrinkle	16	4.25	1.6732	2.00	0.7874	2.822	1.1110	1.25
	Neck, betw. wrinkle	16	3.50	1.3779	1.75	0.6889	2.466	0.9708	1.625
	Average	16	3.875	1.5255	1.875	0.7380	2.644	1.0409	1.4375
55	Shoulder	16	2.75	1.0826	1.75	0.6889	2.252	0.8866	1.50
48	Shoulder, top of wrinkle	16	4.50	1.7716	1.25	0.4921	2.374	0.9346	1.125
	Shoulder, between wrinkle	16	3.50	1.8779	1.50	0.5905	2.302	0.9062	1.50
	Average	16	3.58	1.4094	1.50	0.5905	2.309	0.9090	1.342
30	Side	16	3.00	1.1811	1.50	0.5905	2.112	0.8316	1.3125
48	....do	16	3.75	1.4763	1.00	0.3937	2.213	0.8712	1.375
	Average	16	3.375	1.3287	1.25	0.4921	2.178	0.8574	1.3438

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	MERINO—continued.								
	Ram—Continued.								
48	Hip	16	3.75	1.4763	1.50	0.5905	2.391	0.9413	1.75
51	....do	16	4.00	1.5748	1.25	0.4921	2.141	0.8429	1.50
52	Hip, between wrinkle	16	3.50	1.3779	1.25	0.4921	2.027	0.7980	0.875
55	Hip, top of wrinkle	16	4.25	1.6732	1.50	0.5905	2.546	1.0020	1.125
68	Hip	16	4.66	1.8346	1.66	0.6535	2.752	1.0834	1.375
69	....do	16	5.66	2.2288	1.66	0.6535	2.530	0.9960	1.625
72	....do	16	5.00	1.9685	1.25	0.4921	2.279	0.8972	1.00
73	....do	16	4.25	1.6732	1.25	0.4921	2.180	0.8606	1.25
78	....do	16	3.50	1.3779	1.75	0.6889	2.366	0.9414	1.375
79	Hip, between wrinkle	16	4.00	1.5748	1.50	0.5905	2.090	0.8500	1.375
	Average	16	4.26	1.6771	1.48	0.5826	2.36	0.9291	1.323
48	Belly	16	4.00	1.5748	1.66	0.6535	2.369	0.9326	1.50
51	....do	16	3.25	1.2795	1.25	0.4921	2.205	0.8681	1.625
71	....do	16	3.50	1.3779	1.75	0.6889	2.383	0.9381	1.375
	Average	16	3.58	1.4094	1.50	0.5905	2.319	0.9129	1.50
	Final average	16	3.93	1.5472	1.51	0.5944	2.335	0.9709	1.631
51	Shoulder	20	4.50	1.7716	1.50	0.5905	2.219	0.8736	1.75
53	Shoulder, between wrinkle.	20	3.00	1.1811	1.25	0.4921	1.850	0.7283	1.00
55	....do	20	3.00	1.1811	1.25	0.4921	2.008	0.7905	1.0625
68	Shoulder	20	3.83	1.5078	1.66	0.6535	2.272	0.8944	1.375
69	....do	20	3.83	1.3110	1.33	0.5236	2.246	0.8842	1.375
71	....do	20	3.50	1.3779	1.75	0.6889	2.310	0.9056	1.50
72	....do	20	2.75	1.0826	1.50	0.5905	2.100	0.8267	1.25
73	....do	20	3.50	1.3779	1.50	0.5905	2.116	0.8330	1.625
78	....do	20	3.00	1.1811	1.50	0.5905	2.170	0.8543	1.375
79	....do	20	4.25	1.6732	1.50	0.5905	2.030	0.7992	1.50
82	....do	20	3.25	1.2795	1.50	0.5905	2.093	0.8200	1.50
89	....do	20	3.25	1.2795	1.25	0.4921	2.001	0.7880	1.4375
90	....do	20	4.00	1.5748	1.25	0.4921	2.200	0.8661	1.25
	Average	20	3.474	1.3661	1.442	0.5677	2.124	0.8362	1.385
47	Side	20	3.25	1.2795	1.75	0.6889	2.163	0.8515	1.1875
51	....do	20	3.50	1.3779	1.50	0.5905	2.213	0.8712	1.4375
55	....do	20	2.75	1.0826	1.25	0.4921	1.864	0.7326	1.0625
68	....do	20	4.66	1.8646	1.66	0.6535	2.472	0.9732	1.375
69	....do	20	4.00	1.5748	1.33	0.5236	2.427	0.9555	1.375
71	....do	20	3.00	1.1811	1.50	0.5905	2.128	0.8377	1.25
72	....do	20	2.75	1.0826	1.50	0.5905	2.068	0.8141	1.125
73	....do	20	3.00	1.1811	1.50	0.5905	2.186	0.8606	1.375
78	....do	20	4.00	1.5748	1.25	0.4921	2.191	0.8625	1.125
79	....do	20	3.50	1.3779	1.50	0.5905	2.024	0.7971	1.50
82	....do	20	3.00	1.1811	1.50	0.5905	2.290	0.9016	1.25
89	....do	20	4.00	1.5748	1.50	0.5905	2.026	0.7976	1.25
90	....do	20	3.50	1.3779	1.25	0.4921	2.263	0.8909	1.125
	Average	20	3.455	1.3602	1.461	0.5751	2.178	0.8574	1.264
47	Hip	20	3.50	1.3779	1.50	0.5905	2.294	0.9031	1.375
53	....do	20	2.25	0.8858	1.00	0.3937	1.997	0.7861	1.3125
54	Hip, between wrinkle	20	3.00	1.1811	1.25	0.4921	1.908	0.7511	1.125
71	Hip	20	3.50	1.3779	1.50	0.5905	2.283	0.8988	1.125
72	....do	20	3.50	1.3779	1.25	0.4921	2.220	0.8740	1.375
73	....do	20	3.25	1.2795	1.25	0.4921	1.956	0.7700	1.25
90	....do	20	3.00	1.1811	1.50	0.5905	2.193	0.8633	1.1875
	Average	20	3.143	1.2373	1.321	0.5200	2.079	0.8185	1.33
30	Belly	20	3.25	1.2795	1.50	0.5905	2.302	0.8660	1.375
47	....do	20	3.50	1.3779	1.75	0.6889	2.361	0.9295	1.4375
53	Belly, A	20	2.50	0.9842	1.50	0.5905	1.836	0.7228	1.25
53	Belly, B	20	3.00	1.1811	1.50	0.5905	2.012	0.7925	1.00
55	Belly	20	3.25	1.2795	1.50	0.5905	2.032	0.8023	1.1875
58	....do	20	3.66	1.4500	1.66	0.6535	2.428	0.9560	1.00
69	....do	20	3.00	1.1811	1.66	0.6535	2.262	0.9003	1.25
72	....do	20	3.25	1.2795	1.50	0.5905	2.470	0.9724	1.125
73	....do	20	4.25	1.6732	1.25	0.4921	2.340	0.9212	1.50
78	....do	20	3.00	1.1811	1.25	0.4921	2.066	0.8134	1.375
79	....do	20	3.00	1.1811	1.50	0.5905	2.153	0.8484	1.50
82	....do	20	3.50	1.3779	2.00	0.7874	2.513	0.9895	1.25
89	....do	20	3.00	1.1811	1.25	0.4921	2.049	0.7067	1.50
90	....do	20	3.75	1.4763	1.25	0.4921	2.343	0.9224	1.125
	Average	20	3.279	1.2909	1.505	0.5925	2.240	0.9448	1.277
349	Between wrinkle	20	3.25	1.2795	1.50	0.5905	2.094	0.8244	3.25
350	....do	20	3.125	1.2303	1.75	0.6889	2.224	0.8756	2.50
360	....do	20	3.25	1.2795	1.50	0.5905	2.207	0.8689	2.75
361	....do	20	2.875	1.1318	1.225	0.4429	2.215	0.8720	2.50
	Final average	20	3.043	1.3161	1.45	0.5708	2.168	0.8535	1.413

TABLE XI.—*Individual extremes and averages showing relation of fineness to crimp*—Continued.

Catalogue number of samples.	Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in inches.
			In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	
	MERINO—continued.								
	Ram—Continued.								
53	Shoulder	22	2.50	0.9842	1.50	0.5905	1.896	0.7464	1.4375
53	Side	22	2.50	0.9842	1.25	0.4921	1.816	0.7149	1.375
	Final average	22	2.50	0.9842	1.375	0.5413	1.856	0.7307	1.4063
104		25	3.00	1.1811	1.25	0.4921	1.830	0.7204	1.625
104a		25	2.75	1.0826	1.00	0.3937	1.758	0.6921	2.125
	Average	25	2.875	1.1318	1.125	0.4429	1.794	0.7062	1.875
96		26	2.25	0.8858	1.00	0.3937	1.704	0.6708	2.0625
	Ewe.								
45	Hip	12	4.25	1.6732	1.50	0.5905	2.799	1.1019	1.0625
74	....do	14	6.00	2.3622	1.50	0.5905	2.470	0.9724	1.50
41	Belly	14	4.00	1.5748	1.25	0.4921	1.993	0.7846	1.875
	Average	14	5.00	1.9685	1.375	0.5413	2.232	0.8787	1.6875
41	Neck	16	3.00	1.1811	1.50	0.5905	2.088	0.8220	1.75
45	Neck, top of wrinkle	16	4.00	1.5748	1.50	0.5905	2.296	0.9039	1.1875
	Neck, betw. wrinkle	16	3.25	1.2795	1.25	0.4921	2.271	0.8940	1.125
	Neck, top of wrinkle	16	3.50	1.3779	1.25	0.4921	2.492	0.9818	1.1875
	Average	16	3.438	1.3535	1.375	0.5413	2.287	0.9003	1.3125
	Shoulder, top of wrinkle	16	4.00	1.5748	1.50	0.5905	2.216	0.8724	1.125
74	Shoulder	16	4.00	1.5748	1.50	0.5905	2.487	0.9791	1.375
75	....do	16	3.50	1.3779	1.50	0.5905	2.365	0.9311	1.50
76	....do	16	3.875	1.5225	1.50	0.5905	2.245	0.8838	1.375
	Average	16	3.844	1.5133	1.50	0.5905	2.328	0.9165	1.3438
41	Side	16	3.00	1.1811	1.50	0.5905	1.977	0.7783	1.50
74	....do	16	3.50	1.3779	1.50	0.5905	2.403	0.9460	1.50
81	....do	16	3.50	1.3779	1.50	0.5905	2.140	0.8448	1.625
	Average	16	3.333	1.3122	1.50	0.5905	2.175	0.8547	1.5417
41	Hip	16	3.00	1.1811	1.50	0.5905	1.977	0.7783	1.50
46	Hip, top of wrinkle	16	4.00	1.5748	1.50	0.5905	2.360	0.9303	1.00
58	....do	16	5.00	1.9685	1.75	0.6889	2.635	1.0373	1.00
75	Hip	16	3.75	1.4763	1.50	0.5905	2.455	0.9667	1.375
76	....do	16	4.00	1.5748	1.50	0.5905	2.216	0.8724	1.50
81	....do	16	3.50	1.3779	1.25	0.4921	2.316	0.9118	1.375
83	....do	16	5.25	2.0669	1.00	0.3937	2.383	0.9381	1.375
	Average	16	4.071	1.6027	1.429	0.5625	2.335	0.9192	1.3035
45	Belly	16	3.00	1.1811	1.25	0.4921	2.173	0.8555	1.25
347		16	3.375	1.3287	0.75	0.2953	1.887	0.7429	3.125
348		16	3.25	1.2795	1.25	0.4921	1.971	0.7759	3.125
	Final average	16	3.679	1.4484	1.392	0.5484	2.256	0.8881	1.518
46	Shoulder	20	3.50	1.3779	1.25	0.4921	2.116	0.8330	1.375
56	Shoulder, between wrinkle	20	3.00	1.1811	1.00	0.3937	2.013	0.7921	1.125
57	....do	20	3.50	1.3779	1.25	0.4921	2.149	0.8460	1.0625
58	....do	20	3.00	1.1811	1.50	0.5905	2.030	0.7992	1.25
70	Shoulder	20	3.33	1.3110	1.33	0.5236	2.119	0.8342	1.25
77	....do	20	2.50	0.9842	1.50	0.5905	1.928	0.7590	1.125
80	....do	20	2.25	0.8858	1.25	0.4921	1.770	0.6968	1.50
81	....do	20	3.00	1.1811	1.50	0.5905	2.133	0.8391	1.625
83	....do	20	3.50	1.3779	1.50	0.5905	2.093	0.8240	1.25
88	....do	20	3.00	1.1811	1.25	0.4921	1.920	0.7562	1.125
	Average	20	3.058	1.2039	1.333	0.5248	2.127	0.8373	1.292
45	Side	20	3.75	1.4763	1.25	0.4921	2.294	0.9033	1.375
46	....do	20	3.75	1.4763	1.25	0.4921	1.991	0.7838	1.25
56	....do	20	3.00	1.1811	1.25	0.4921	2.152	0.8472	1.8125
70	....do	20	3.33	1.3110	1.33	0.5236	2.099	0.8263	1.25
75	....do	20	3.75	1.4763	1.50	0.5905	2.263	0.8909	1.150
76	....do	20	2.75	1.0826	1.50	0.5905	2.066	0.8133	1.125
77	....do	20	3.00	1.1811	1.25	0.4921	1.921	0.7562	1.375
	MERINO—continued.								
	Ewe—Continued.								
83	Side	20	4.00	1.5748	1.50	0.5905	2.123	0.8358	1.375
	....do	20	3.25	1.2795	1.25	0.4921	1.976	0.7779	1.25
	Average	20	3.398	1.3377	1.342	0.5283	2.099	0.8263	1.368
46	Hip	20	3.25	1.2795	1.25	0.4921	2.091	0.8223	1.50
52	....do	20	2.50	0.9842	1.50	0.5905	1.869	0.7358	1.375
	Hip between wrinkle	20	4.00	1.5748	1.00	0.3937	2.253	0.8877	0.75
57	Hip	20	3.25	1.2795	1.25	0.4921	2.141	0.8412	0.875
58	Hip, between wrinkle	20	3.50	1.3779	1.25	0.4921	2.096	0.8251	1.125
70	Hip	20	3.50	1.3779	1.375	0.5413	2.115	0.8326	1.125
77	....do	20	4.25	1.6732	1.25	0.4921	2.200	0.8661	1.00
84	....do	20	4.00	1.5748	1.50	0.5905	2.201	0.8665	1.00
85	....do	20	3.00	1.1811	1.00	0.3937	1.838	0.7236	1.25
88	....do	20	2.75	1.0826	1.00	0.3937	1.980	0.7795	1.25
	Average	20	3.40	1.3385	1.238	0.4874	2.079	0.8185	1.125
41	Belly	20	3.00	1.1811	1.25	0.4921	2.094	0.8244	1.4375
52	....do	20	3.25	1.2795	1.25	0.4921	1.808	0.7118	1.1875
56	....do	20	2.75	1.0826	1.50	0.5905	2.049	0.8066	0.9375
57	....do	20	3.00	1.1811	1.25	0.4921	2.158	0.8496	0.875
58	....do	20	3.00	1.1811	1.50	0.5905	2.066	0.8183	1.125
70	....do	20	4.00	1.5748	1.50	0.5905	2.431	0.9570	1.25
74	....do	20	4.00	1.5748	1.50	0.5905	2.390	0.9409	1.25
75	....do	20	4.00	1.5748	1.25	0.4921	2.423	0.9559	1.375
76	....do	20	4.00	1.5748	1.875	0.7381	2.415	0.9649	1.125
77	....do	20	3.50	1.3779	1.25	0.4921	1.963	0.7728	1.50
80	....do	20	3.00	1.1811	1.50	0.5905	2.126	0.8370	1.375
81	....do	20	3.00	1.1811	1.50	0.5905	2.230	0.8779	1.50
	....do	20	4.75	1.8700	1.25	0.4921	2.500	0.9842	1.25
85	....do	20	3.75	1.4765	1.00	0.3937	1.886	0.7425	1.375
	....do	20	3.00	1.1811	1.50	0.5905	2.176	0.8566	1.375
87	....do	20	2.75	1.0826	1.50	0.5905	1.928	0.7590	1.50
88	....do	20	4.75	1.8700	1.50	0.5905	2.233	0.8791	1.25
	Average	20	3.50	1.3779	1.404	0.5527	2.178	0.8574	1.276
351			2.375	0.9350	1.25	0.4921	1.655	0.6515	3.00
352		20	3.25	1.2795	1.25	0.4921	1.848	0.7275	2.75
353		20	2.875	1.1318	1.25	0.4921	1.867	0.7350	2.25
355		20	3.375	1.3287	1.50	0.5905	2.163	0.8515	2.75
356		20	4.50	1.7716	1.375	0.5413	2.185	0.8641	2.50
357		20	3.50	1.3779	1.125	0.4429	1.890	0.7440	2.50
358		20	3.25	1.2795	1.25	0.4420	2.033	0.8003	2.25
	Final average	20	3.354	1.3204	1.333	0.5248	2.105	0.8287	1.122
52	Shoulder	22	3.50	0.9842	1.25	0.4921	1.733	0.6822	1.5625
84	....do	22	3.50	1.3779	1.50	0.5905	1.953	0.7688	1.375
84	Shoulder, 17 months	22	3.75	1.4763	1.25	0.4921	2.035	0.8011	3.125
85	Shoulder	22	2.75	1.0826	1.25	0.4921	1.793	0.7059	1.375
86	....do	22	3.50	1.3779	1.00	0.3937	1.851	0.7287	1.375
87	....do	22	3.00	1.1811	1.50	0.5905	2.050	0.8094	1.50
	Average	22	3.167	1.2468	1.291	0.5082	1.903	0.7492	1.719
52	Side	22	2.75	1.0826	1.00	0.3937	1.716	0.6755	1.25
83	....do	22	2.75	1.3779	1.25	0.4921	1.753	0.6901	6.25
84	....do	22	3.50	1.3779	1.25	0.4921	1.970	0.7755	1.00
85	....do	22	2.50	0.9842	1.25	0.4921	1.810	0.7125	1.375
86	....do	22	3.50	1.3779	1.50	0.5905	2.103	0.8279	1.25
87	....do	22	3.25	1.2795	1.50	0.5905	2.201	0.8665	1.1875
	Average	22	3.167	1.2468	1.291	0.5082	1.920	0.7559	1.2813
	Hip		2.75	1.0826	1.25	0.4921	1.873	0.7374	1.375
	....do	22	3.50	1.3779	1.50	0.5905	2.083	0.8200	1.25
87	....do	22	3.00	1.1811	1.50	0.5905	2.173	0.8555	1.25
	Average	22	3.083	1.2137	1.416	0.5574	2.043	0.8043	1.292
354		22	3.25	1.2795	1.125	0.4429	1.856	0.7307	2.75
	Final average		3.156	1.2425	1.305	0.5137	2.049	0.8066	1.539
103		25	3.50	1.3779	1.25	0.4921	1.890	0.7444	2.375
96		30	2.00	0.7874	1.00	0.3937	1.472	0.5795	2.00
98		30	2.50	0.9842	1.00	0.3937	1.687	0.6641	1.875
99a		30	2.25	0.8858	0.75	0.2972	1.578	0.6192	2.125
100		30	2.25	0.8858	1.00	0.3937	1.523	0.5996	1.75
102		30	2.50	0.9842	1.00	0.3937	1.599	0.6295	1.375
	Final average	30	2.30	0.9055	0.95	0.3740	1.571	0.6185	1.825

TABLE XII.—*General extremes and averages showing relation of crimp to fineness.*

Portion of fleece represented.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length in crimp.
		In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In inches.
SOUTHDOWN.								
Ram.								
Whole fleece	12	4.66	1.8346	2.00	0.7874	3.229	1.2712	1.4375
Shoulder	12	4.66	1.8346	2.00	0.7874	3.663	1.2959	1.375
Side	12	4.66	1.8346	2.00	0.7874	3.274	1.2889	1.50
Ewe.								
Whole fleece	12	4.82	1.8976	1.97	0.7755	3.072	1.2094	1.4173
Shoulder	12	4.97	1.9567	2.03	0.7992	3.246	1.2779	1.3542
Hip	12	4.91	1.9330	1.91	0.7519	2.882	1.1345	1.4531
Belly	12	4.83	1.7047	2.00	0.7874	2.788	1.0976	.....
Whole fleece	14	4.49	1.7677	1.70	0.6692	2.793	1.0996	1.464
Shoulder	14	4.72	1.8504	1.89	0.7440	2.747	1.0736	1.33
Side	14	3.99	1.5708	1.58	0.6220	2.449	1.1216	1.1875
Belly	14	3.33	1.3110	1.66	0.6535	2.770	1.0905	0.875
Belly	16	4.66	1.8346	2.00	0.7874	2.872	1.1307	0.875
MERINO.								
Ram.								
Whole fleece	14	4.32	1.7007	1.49	0.5866	2.460	1.0429	1.390
Shoulder	14	4.09	1.5748	1.375	0.5413	2.487	0.9791	1.0313
Hip	14	4.66	1.5984	1.50	0.5905	2.436	0.9593	1.297
Whole fleece	16	3.93	1.5472	1.51	0.5944	2.235	0.8799	1.631
Neck	16	3.875	1.5255	1.875	0.7380	2.644	1.0409	1.4875
Shoulder	16	3.58	1.4094	1.50	0.5905	2.309	0.9090	1.342
Side	16	3.375	1.3287	1.25	0.4921	2.178	0.8574	1.3438
Hip	16	4.26	1.6771	1.48	0.5826	2.360	0.9291	1.325
Belly	16	3.58	1.4094	1.50	0.5905	2.319	0.9129	1.50
Whole fleece	20	3.343	1.3161	1.45	0.5708	2.168	0.8535	1.413
Shoulder	20	3.474	1.3681	1.442	0.5677	2.124	0.8362	1.385
Side	20	3.455	1.3602	1.461	0.5751	2.178	0.8574	1.264
Hip	20	3.143	1.2373	1.321	0.5200	2.079	0.8185	1.25
Belly	20	3.279	1.2909	1.505	0.5925	2.240	0.9448	1.277
Whole fleece	22	2.50	0.9842	1.375	0.5413	1.856	0.7307	1.4063
Shoulder	22	2.50	0.9842	1.50	0.5905	1.896	0.7464	1.4375
Side	22	2.50	0.9842	1.25	0.4921	1.816	0.6149	1.875
	25	2.875	1.1318	1.125	0.4429	1.794	0.7062	1.875
	26	2.25	0.8858	1.00	0.3937	1.704	0.6708	2.0625
Ewe.								
Hip	12	4.25	1.6732	1.50	0.5905	2.799	1.1019	1.0625
Whole fleece	14	5.09	1.9685	1.375	0.5413	2.232	0.8787	1.6875
Hip	14	6.00	2.3622	1.50	0.5905	2.470	0.9724	1.50
Belly	14	4.09	1.5748	1.25	0.4921	1.988	0.7846	1.875
Whole fleece	16	3.679	1.4484	1.377	0.5421	2.256	0.8881	1.518
Neck	16	3.438	1.3535	1.375	0.5413	2.287	0.9003	1.3125
Shoulder	16	3.844	1.5133	1.50	0.5905	2.328	0.9165	1.3438
Side	16	3.393	1.3122	1.50	0.5905	2.175	0.8417	1.5417
Hip	16	4.071	1.6027	1.429	0.5625	2.335	0.9192	1.3035
Belly	16	3.09	1.1811	1.250	0.4921	2.173	0.8555	1.25
Whole fleece	20	3.251	1.3204	1.291	0.5248	2.105	0.8287	1.433
Shoulder	20	3.456	1.3039	1.333	0.5248	2.127	0.8373	1.269
Side	20	3.398	1.3377	1.342	0.5283	2.090	0.8231	1.308
Hip	20	3.400	1.3385	1.248	0.4874	2.079	0.8185	1.125
Belly	20	3.50	1.3779	1.404	0.5527	2.178	0.8574	1.276
Whole fleece	22	3.156	1.2425	1.305	0.5137	2.049	0.8068	1.339
Shoulder	22	3.102	1.2168	1.291	0.5082	1.903	0.7492	1.719
Side	22	3.167	1.2468	1.291	0.5082	1.920	0.7559	1.2813
Hip	22	3.083	1.2137	1.416	0.5574	2.043	0.8043	1.292
	25	3.50	1.3779	1.25	0.4921	1.890	0.7444	2.373
	28	2.30	0.9055	0.95	0.3740	1.571	0.6185	1.825

CHAPTER V.

TENSILE STRENGTH, DUCTILITY, AND ELASTICITY.

By "tensile strength of the fiber" we understand the strain it is able to resist previous to rupture, or the power required to effect its rupture. By ductility, the elongation which the fiber suffers previous to rupture when subject to strain. This may be divided into *elongation* and *set*, as the authorities on strength of materials have it. The former indicates the total elongation the fiber undergoes when under the influence of strain, and *set* the elongation of the fiber which remains permanent when the power causing the strain is relieved or removed. The difference between elongation and set may be called elasticity. It is upon these different qualities that the commercial and industrial value of the fibers depends more than perhaps any other. The length is important in the determination of the manner in which it shall be worked, the fineness in determining the character of the fabric into which it shall enter; but the durability of the latter, its power to resist and recover from strain, and its general beauty and worth will depend to a great extent upon the properties just mentioned. The examination of our material with regard to these properties must therefore be considered as probably the most important portion of our work. But their accurate measurement, and the form and expression to be adopted in stating the results, have involved the most difficult and perplexing problem met with in the examination of the fiber. It has seldom been attempted to any great extent by the students of the staple, and we believe never to the extent to which we have carried it. The tensile strength of the fiber in threads and yarns of different sizes has been made the subject of study at various times and in various ways, but such material varies so much in mechanical preparation and condition, depending upon the closeness of the twist and other properties necessarily inherent in the samples submitted to the test, that the results obtained can, in the nature of the case, scarcely be other than unsatisfactory. Alcan, in his *Traité des Laines*, describes the apparatus he employed for his tests and discusses the results he obtained. His tests of yarns were made by means of a spring-balance, which furnished the resistance and the necessary cog-wheel motions to apply the power. In the tests of individual fibers he attached to a board or table a rod of good spring steel. Parallel to it he placed another of similar length and free to swing by one end upon a pivot. At the extremity of these two arms he fixed clamps into which to insert the fiber to be tested. The movable arm, when the fiber is in position and the clamp closed, is drawn to one side. The fixed arm is drawn aside and its point moves over an arc graduated to grams and parts of grams by experiment. Each test thus made is recorded. It is such tests of the individual fibers that must be made for the comparison of different qualities of wool, and in such work the comparative fineness and frailty of the material operated upon, and often the diminutive length, makes the examination one requiring a skill in manipulation and delicacy of instrument difficult to obtain. It also involves the expenditure of a large amount of time and painstaking labor, which under ordinary circumstances cannot generally be devoted to it.

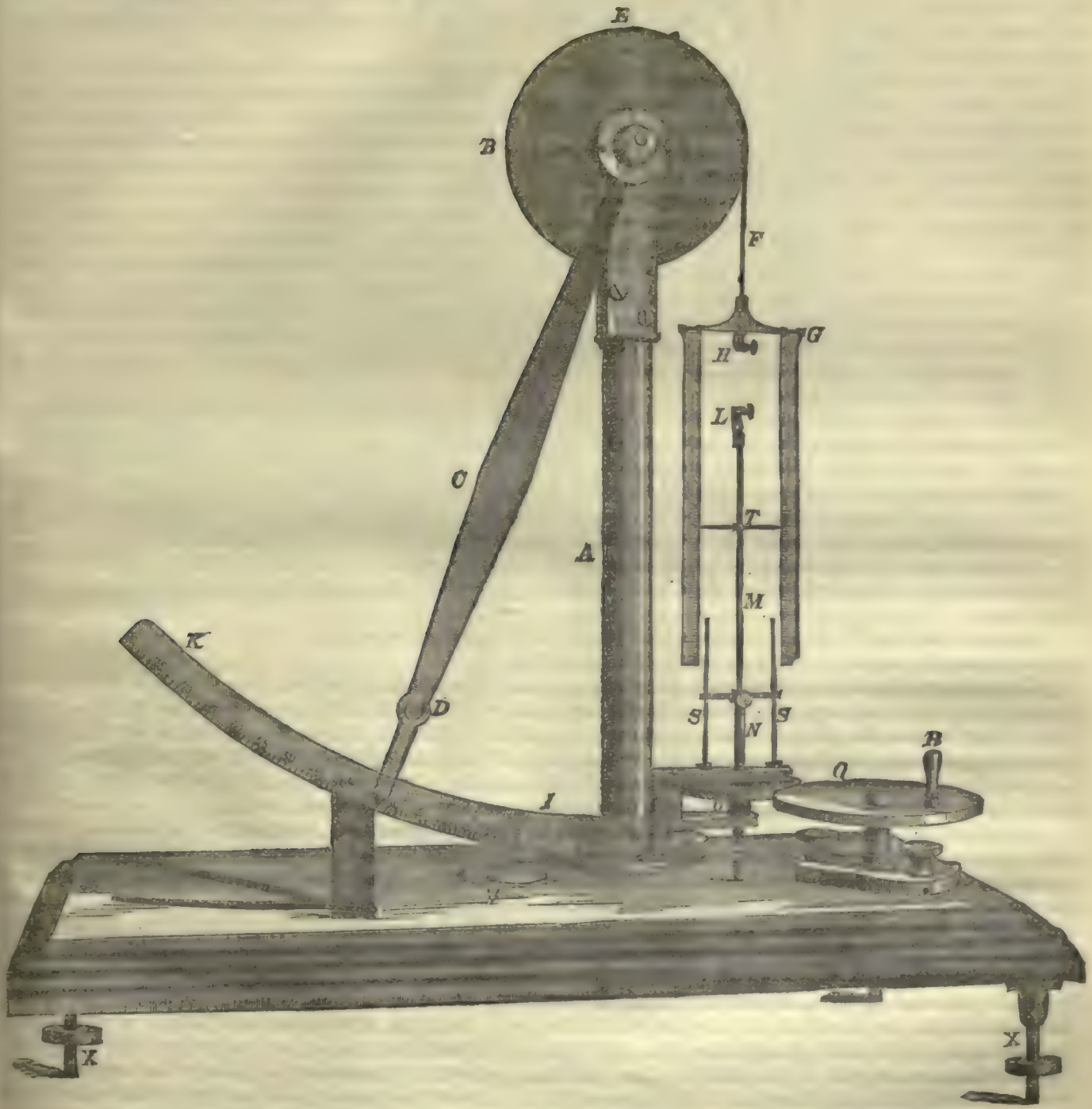
In the present investigation we were met at the outset with the difficulty of securing a means in which the time and labor required should be reduced to a minimum. The ordinary form employed in securing the limited results that have been published in Brown's *Tricologia*, and in the works of Bohm, Nathusius, and May, consists of an upright standard, to the top of which is fixed a horizontal arm having at its end a clamp in which the fiber to be tested is placed. The instrument is also provided with an ordinary scale-pan attached to a clamp by which it may in turn be attached to the other end of the fiber in the instrument. In some cases, after being placed in the clamps, the fiber is drawn up by means of a set-screw and through the jaws of a third clamp until an indicator on the lower clamp covers the zero of a vertical scale attached to the horizontal arm at the top, which scale, graduated to equal parts, serves to show the elongation which the fiber suffers when subjected to the strain applied. The latter is secured by placing small weights successively in the pan until sufficient are added to cause rupture of the fiber, and the total weight and the stretch are then noted and recorded. Or, in other cases, very fine shot or sand is caused to flow very slowly into the pan until rupture occurs, and the quantity necessary to this is weighed in a chemical balance to determine the strain.

Mr. Charles O'Neill has devised an instrument which he has described in a paper read before the Literary and Philosophical Society of Manchester, England, and it is so ingenious that we have taken occasion to reproduce his description in an appendix to this report. In general it consists of two cylinders of different diameters, one partially filled with water, the other floating vertically within the first. The whole arrangement is placed upon a bracket fixed to a stand, and at the top of which is a horizontal arm. The floating cylinder is raised to a zero point, the fiber fixed by one end to its upper part, and by the other to the extremity of the horizontal arm of the upright standard. At the bottom of the larger cylinder is a stop-cock by which the water may be drawn off. When the stop-cock is opened the fall of the water throws the weight of the smaller cylinder upon the fiber nearly in proportion to the amount of water drawn off. The latter is measured and the strain calculated, correction being easily made for differences due to stretch of the fiber. For holding the fibers in making the test, they are first pasted to small pieces of paper fixed to wire triangles, so that clamps are avoided, and it is only necessary to place the small triangles over the hooks provided. O'Neill's method and apparatus are certainly excellent, and there can be no question of the accuracy of his results. The only objection to it is, that it involves more time in manipulation and subsequent calculation than can ordinarily be given to such tests, and any means that will obviate this difficulty must certainly be desirable. For instance, great care and skill must be used in arranging the fibers for the test. To paste them to the small pieces of paper attached to the wire triangles requires an amount of patient labor, which, in our work, we have sought to avoid without impairing the correctness of our results, and reduce the time required to make the actual tests as well.

The difficulty of securing an apparatus that will combine all the qualities desired will be appreciated upon comparison of the instruments described. As we have said, in France, in testing the strength of wools and raw silks, the spring balance has been almost exclusively employed, but the relations that may intervene to affect the elasticity of the spring, and consequently its resisting power, especially in the case of springs sufficiently delicate for our purpose, are so numerous that we considered it advisable to avoid them and seek some other means for applying the resistance required.

Many good authorities on strength of materials maintain that satisfactory results can be obtained only when the beam balance is used, and it is upon this principle that the instrument we have employed is based. To arrive at this as nearly as possible we have made use of a pendulum attached to the axis of a wheel free to turn. The power is transmitted to the circumference of the latter, and the pendulum moved from the vertical furnishes the resistance. The construction of the instrument is illustrated in the accompanying plate, No. III. A is a standard for supporting the wheel B, to which is attached the pendulum arm C, bearing at its lower extremity the small weight or counterpoise D. At the point E in the wheel is attached the end of the chain F, which passes over the circumference and is attached at its other extremity to the frame G, in the center of the head of which and to the end of the chain is fixed the clamp H. Now, it is plain that any power applied vertically downwards at the clamp H must be communicated to the circumference of the wheel B and turn it, moving the pendulum from the vertical, and the deviation from the vertical or the distance which the point of the pendulum moves over the arc I K, will be in direct relation with the amount of power applied. To standardize the instrument and graduate it, for this must of course be done by experiment, it is only necessary to successively apply at the point H weights of different denominations and locate the point on the arc at which the point of the pendulum comes to rest after the oscillations communicated in the application of the weight, or started by hand, cease. As might naturally be expected, the divisions on the arc corresponding with different weights vary with their position; that is, they are smaller near the extremity I and gradually increase toward the end K. But there is a section in the quadrant where the cosines are nearly equal, and to secure as nearly as possible uniformity in the length of the division of the scale, it was our endeavor to confine the motion of the pendulum to that part of the arc. The pendulum was, therefore, so counterpoised by an initial weight that when in equilibrium it hangs at an inclination to the vertical line passing through its center of motion.

In the instrument we have used, which for convenience was graduated according to the metric system, the range given is 80 grams; but this range is necessary only in the tests of the coarser and stronger wools, and the instrument with this large range is less delicate for tests of finer and weaker wools than one of shorter range, and in order to secure both conditions in the same instrument the following plan was adopted: The weight or counterpoise D was made detachable, and when it was removed the scale upon the upper part of the arc was graduated after the same manner as the other. With the counterpoise thus removed the shorter scale is always employed in testing the finer fibers, and the arrangement makes the same instrument adapted to the test of fibers of widely differing tensile strength, and it has proved exceedingly convenient in some parts of our work. The divisions on the arc, as already intimated, represent grams, and are sufficiently large for the eye to detect and read off differences of a quarter of a gram and even less, though the scale is not so graduated. The other essential parts of the instrument are the following: The clamp L, entirely independent of the frame G, attached to the rod *m*, which slides vertically through the screw *n*, working through the nut-wheel, which, in turn, is in contact with the wheel or pulley Q, having a crank, R, for application of motion. The guides S S insure steadiness of the parts in operation. In practice the fibers are stretched and held between the clamps H and L, which are opened and closed by means of the small thumb-screws *hh* and *l*. It is plain that if, upon application of power, which may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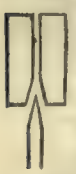
now be effected by turning the wheel or pulley Q, if the fiber be perfectly rigid the distance between the points or clamps H and L will always remain the same until rupture of the fibers occur, but in case of stretch of the fiber previous to rupture the distance between the clamps must be correspondingly increased and the measurement of this increase and consequently the elongation or ductility of the fiber, provided for. A scale is ruled upon the frame G, while the indicator T, passing over it, indicates the amount of increase of distance between the clamps, and consequently the stretch of the fiber. The initial distance between the clamps being first fixed, the indicator is brought to the zero of the scale by sliding along the rod M, and finally fastened with its thumb-screw. The sliding rod is held in position by the thumb-screw *m*.

In the construction of the frame bearing the scale for measurement it is important that the sides should be able to swing freely in the direction of the opening of the clamps, for since the fiber cannot always be placed in the upper clamp at the same point and directly in the central line of motion, the frame must, upon the application of the power, if all the parts are rigid, be moved from its vertical position, and there must consequently be a loss of power. But if the sides of the frame are free to swing they readily maintain their vertical position whatever may be the position of the fiber in the clamps. In the further construction of the instrument there appears to be but one point at which there may be any loss of power and motion, and this is in the bearing in which the wheel B turns. To obviate this difficulty, the axis of the wheel is made of well-hardened steel and the ends are tapered to fine points which rest in conical cavities of very hard steel boxes, as illustrated in the adjoining figure, showing the parts very much enlarged. Theoretically the point of the axle should be perfect, making a practical knife support, as in the chemical balance. Practically, however, the point, though small, is more or less rounded. Instrument-makers maintain that a perfect point would be objectionable, and as a fact the friction due to the slightly blunted point is inappreciable. The perforation of the box extends entirely through it to provide against injury to the point in adjusting.



In the earlier instruments made for us, the power was communicated from the larger wheel, Q, to the smaller one, O, by means of a band, but this means proved very unsatisfactory. At the instance of Dr. S. H. Peabody, Regent of the University of Illinois, we provided for friction contact between the wheels, regulating the contact by means of the screws Z, and it proved all that could be desired. Yet the roll of the metal surfaces upon each other caused some objectionable jarring, and, finally, to obviate this the periphery of the larger wheel was surrounded by an india-rubber band. This insured perfect contact in every part and made much smoother motion.

The combined instrument is mounted upon a substantial table supported by leveling-screws X and provided with the necessary spirit-level, so that when in operation the pendulum may be caused to hang and swing in a vertical plane.

The screw motion for the application of the power insures perfect steadiness and freedom from jerks, so that the strain may be increased slowly and with great regularity.

The instrument is also provided with a stop arrangement to catch the wheel and hold the parts at the points reached at the instant of rupture. It consists of a very light eccentric resting upon a collar on the wheel B at the back. It rests upon the collar so lightly as in no way to interfere with its motion, but it presents the difficulty of not always catching at the instant of rupture, and in the actual tests it is always necessary to watch the motion of the pendulum over the scale and note the point at which the rupture occurs. Later, an attachment was made to the pendulum so that upon rupture it was caught by a ratchet upon the measuring arc, having 50 notches to the inch.

In making the tests practically we proceed as follows: First, the clamps are brought into position and within the proper distance from each other, as determined by the coincidence of the indicator T with the zero of the scale on the frame G. The fiber to be treated is grasped by its butt end and inserted between the jaws of the upper clamp L, and the latter closed by means of the small thumb-screw provided for the purpose. The remaining free extremity of the fiber is drawn through the lower clamp L and fixed, the operator being careful not to apply any strain more than just sufficient to destroy the crimp. With the fiber just fixed, the wheel Q is slowly turned and the power applied to the fiber through the screw motion and standard M. Considerable practice is required to enable the operator to apply the power with proper rapidity. If the application be made too rapidly, the result for strain is likely to be too high and that for stretch too low. As a rule, it has been found better to move along regularly until considerable elongation occurs and then proceed only just fast enough to prevent the pendulum from receding on account of the stretch. The pendulum is constantly watched, the point it has reached when rupture of the fiber occurs is finally recorded, the pendulum again raised to that point, and the stretch suffered by the fiber under the strain read from the scale on the frame G, and entered upon the record. One arm being graduated to millimeters, the other to parts of an inch, it is possible to state the result in either standard. We have used the metric scale.

In this way all of our tests have been made. But a very important question at once arose, that is, the length of the portion of fiber to be tested or the distance between the clamps during the test. Of course all the tests should be made with the same length of fiber, but it was difficult to decide upon what this length should be. To determine differences due to this cause a series of special tests were made in which different lengths of fiber were employed, and the results obtained are presented in Table XII. Here we have made experiments with Cotswold wool, using successively lengths of 1, 2, 3, 4, 5, and 6 centimeters, respectively, and we find that the differences are

very marked. In this test, while there seems to be no regularity in the variation in strength, there is a gradual reduction in the figures representing the stretch. This is illustrated by the following figures, giving the averages in each case. The first sample tested in this way was No. 66, side.

Length tested.	Strain.	Per cent. of stretch.
1 centimeter	23.87	48.87
2 centimeters	24.84	42.30
3 centimeters	22.53	37.06
4 centimeters	22.51	36.17
5 centimeters	26.35	34.56
6 centimeters	21.63	30.86

The averages of the other tests are as follows:

Sample.	Length tested.	Strain.	Per cent. of stretch.
No. 59, side, Lincoln	2 centimeters	23.42	37.60
Do	4 centimeters	23.05	31.67
No. 35, side, Cotswold	2 centimeters	40.10	37.85
Do	4 centimeters	36.92	33.12
No. 39, side, Cotswold	2 centimeters	39.61	39.15
Do	4 centimeters	36.06	35.67
No. 60, side, Lincoln	2 centimeters	37.77	33.30
Do	4 centimeters	33.19	28.99
No. 61, side, Lincoln	2 centimeters	25.55	43.35
Do	4 centimeters	23.10	36.95

The detailed results of the experiments here described are given in Table XIII. Here we have simply the figures representing the strain and total stretch the fibers are able to sustain previous to rupture. In the head lines of the table we have the numbers of the samples tested and the length of fiber employed in the test; and by the latter we desire to be understood the distance between the clamps at the time the test is made. The first division of the table gives the results of the actual tests made with each fiber, and these results in strain in grams, and stretch in millimeters, are given in the columns under the respective headings. To secure a fair average, thirty fibers are tested in each sample, for this number was found, after repeated trials with the same sample, to give more nearly the same average result. At the foot of each column is given the sum of the strains and stretches of all the fibers represented. In the next section we have the recapitulation and reductions of these results; that is, we have stated the highest and lowest of all the tests and the average of all, and these are reduced from grams of the French standard to grains of the English standard for strain, and from millimeters to per cents of length for stretch. At the extreme bottom of the table are given the number of tests above the average, as compared with the number below the average—figures of value for determination of the uniformity of the sample with regard to the qualities under consideration. For the determination of the length of the fiber to be employed the averages given in the lower line of the division of recapitulation and reductions are necessary; but there are other relations shown in the figures of other parts of the table that will be of interest to those who may have more time to study them, and we therefore reproduce them in full. With these statements the table will explain itself.

In the examination of the table mentioned, or of the abstract of it we have already given, the variations between the results of the tests with different lengths do not seem to be very regular in any case; that is, there seems to be no distinct relation between the length of fiber and the strain and stretch it is able to sustain previous to rupture; for while it is true that there is a comparatively little difference in the result as to strain, and a comparatively regular decrease in the percentage of stretch, the differences between the figures for stretch are not sufficiently uniform to become a basis for any law to govern subsequent experiments. Thus, taking the figures for sample No. 60, we find the differences in the figures for stretch as follows:

Per cent. of stretch.	Differences.
43.30	6.40
37.06	4.84
36.17	1.45
34.56	1.61
30.86	3.70

The difficulty of fixing the length of fiber to be employed in the tests, therefore, becomes apparent. If we take the average of these tests we find that it falls at 23.6 grams for strain and 38.3 per cent. for stretch. This would correspond with a length of between 2 and 3 centimeters in each case. Probably 2.5 would fall at nearly the true average for a series of tests. But for convenience, on many accounts, we were led to choose 2 centimeters as the length employed for our tests, and, as this was the length taken for all samples, the results must be fairly comparable.

The conditions for determination of the strain being thus settled, another difficulty arises that has proved even more perplexing. In what has just been stated we have spoken of the stretch the fiber sustains under the strain required for its rupture, and in many of our tests this has always been noted and recorded in making the tests of strain. But in the determination of the commercial value of the staple its elasticity must be considered, and it becomes an important question to fix the relations between this stretch or *elongation* and the elasticity or the power of the material of the fiber to return to its original condition subsequent to the application of strain not sufficient for rupture, and what will be the proportion of permanent stretch or *set* produced in each case. To determine this point a large number of tests have been made after the following manner: A certain number of fibers are drawn from each sample, and each fiber placed in the instrument in the same way as described for the tests of strain. A strain sufficient to cause a stretch of 1 millimeter is then applied. When this amount of stretch has been produced the strain is relieved and the fiber allowed to resume as far as possible its original condition. When the action of contraction appears complete the power is again applied and continued until a stretch of 2 millimeters is effected, when the strain is again removed and the fiber again allowed to contract. Again, after complete contraction, the operation of applying power and withdrawing it is repeated for a stretch of 3 millimeters, 4, 5, 6, &c., respectively, until the fiber breaks. In each experiment with the fiber we record the strain applied in grams, the total stretch suffered by the fiber at that strain, and the permanent stretch or the increased length of the fiber after each experiment. It must be plain that the difference between the total stretch or elongation and the permanent stretch or *set* represents the elasticity of the fiber under the given strain. The results of a series of experiments made upon different kinds of fiber are detailed in Table XIV. The question of how to state them best has been a perplexing one, and after long consideration we have concluded that because of the many relations they involve it is advisable to give them in full as they were obtained, leaving to others or to future work the matter of their condensation.

With these considerations we submit Table XIV, with the general conclusion, most important for our present purpose, that the total stretch each fiber is able to sustain previous to rupture is a fair indication of its elasticity. And on account of the excess of work required in making these tests the conclusion proves to be for us a fortunate one.

In the earlier tests made for this table the work was confined to samples of the known breeds, and fearing lest the more favorable conditions of feeding and management might have a tendency to induce greater regularity in the results, a series of tests were also made with samples from the various commercial grades of the Boston and Philadelphia markets at our disposal, in which the objections on account of such conditions could not arise. But as may be seen upon inspection of the results obtained from tests of these samples, the source of the material seems to be unimportant. The law, if it may be accepted as a law, still holds good, and the set and elasticity vary almost directly with the stretch. In this branch of our investigation we have relied principally upon the results of tests of strain and stretch taken in single operations for the determination of the relations of the various conditions of breed, part of fleece, sex, age, &c., upon the strength and elasticity of the staple in each case. In Table XV we have collected all of the individual tests, with samples of known breed, placing those of the same breed under the same head. This table is constructed after the same manner as Table XIV, already described. The results of the separate tests in each sample may be studied and compared if desirable, and from their various relations made out. For the more ready comparison of the relations between strain and stretch we have projected the curves given at the end of the table. These show pretty clearly what may be learned from more extended study of the tables themselves, that while there is a certain relation between the two qualities of the fiber, and that the relation is nearly general, it is by no means absolute from fiber to fiber. Thus, in these curves the figures at the bottom of the table indicate the number of the fiber tested in the sample represented. The figures at the side represent, respectively, strain and stretch, the colors in the figures and curves corresponding. We shall return to these curves further on. In the present table we may compare, then, the individual fibers of each sample, and secure from it the data for construction of the following tables showing the various relations above mentioned. At the bottom of the table we have the reductions of grams to grains of strain, and from millimeters to per cents of stretch, and as in the previous tables, for fineness, the highest and lowest results in each case, and the number of tests above and below the average, respectively, are given, we have here in a limited way the means for comparison of uniformity in the fibers of each sample as well.

In Table XVI we have collected the recapitulations and reductions of Table XV, arranged to show the influence of breed upon the qualities in question. It affords an opportunity not only for comparison of the breeds with each other, but for the variations occurring in the fibers of each breed also. Thus, if we collect the general averages, we find them to be as follows:

	Strain in grains.			Stretch in per cents.		
	Highest.	*Lowest.*	*Average.*	*Highest.*	*Lowest.*	*Average.*
Cotswold	44.54	16.10	30.44	55.00	10.65	35.45
Leicester	30.00	15.50	23.70	40.00	12.50	28.05
Lincoln	36.72	15.79	25.66	47.15	19.00	35.35
Southdown	21.52	6.48	12.78	39.70	8.45	22.05
Oxford	45.15	19.15	30.43	45.40	16.25	33.05
Merino	11.92	3.86	7.35	39.95	10.70	28.70

It will be remembered that these figures* involve no other consideration than that of breed. Here we find that as regards the strain the Cotswold and Oxforddown are about equal, and that they have very nearly the same percentage of stretch, while in both strain and stretch the Oxforddown shows somewhat more of uniformity. Between the others there seems to be little of any similarity. Comparison of all the figures of this statement and the entire table shows that a high strain corresponds with a high stretch; but it is also true that this relation is by no means absolute; that is, there is no regular or proportionate increase of stretch with increase of strain. That while the Cotswold and Oxford and the other coarse wools have a high stretch with the high strain, relatively the stretch of the Merino is much higher when compared with its strain. At the same time when we examine the averages for each sample we find variations depending upon causes either difficult to determine or to be developed in the following tables. In the general averages, as shown by the highest and lowest, the Cotswold is the most uniform, though it presents tolerably wide variations from the average. Next to it stands the Merino, followed by the Southdown; the Lincoln, Leicester, and Oxford being comparatively irregular, according to the indications these figures afford.

In the next table the results given in Table XVII are collected and classified according to breed, sex, and parts of fleece. That is, in the first place, the breeds are all placed in separate groups, then under each group the rams' wools are placed in one division and the ewes' wools in another. These divisions are further subdivided and the figures representing the shoulder, side, hip, and belly, respectively, are placed in separate subdivisions. By these means we are able to obtain general averages for each condition, as well as to note the variations in the results in each case. And from this table it is easy to see that although the number of specimens examined and the number of results obtained in our investigation are apparently large, yet for the comparisons and deductions we have here to make they are still very meager, for in some cases we have had one or two results under each head, scarcely sufficient to base general conclusions upon. The general averages of this table are collected in the following one, Table XVIII, where they may be more conveniently compared.

In this table we have brought together the general averages of the two preceding ones, and we therefore have in it an exposition of the influence of breed, sex, and portion of fleece upon the strain and stretch. In the first portion of the table we have the general average found in Table XVII; that is, those found for each breed, with no consideration of sex, part of fleece, or other condition. We find here the relations already pointed out. The Cotswold and Oxford are strongest, and have the highest percentage of stretch. The Southdown and Merino the weakest, and have the highest relative stretch, that is, when referred to the size of the fiber and the strain they are able to sustain, while the other breeds occupy an intermediate position. The variations from the average are in all cases pretty wide, but least so in the case of the Cotswold and Merino.

In the further examination of this table we find that in all of the breeds with the exception of the Merino, as shown in the general average for the whole fleece in each case, the ewes' wool is stronger and is able to sustain a greater strain than the rams' wool. In the Merino the conditions in this regard are reversed. But the same relations do not hold for the stretch, for while the strain is in each case greater, we find that for the Cotswold and Oxforddown the rams' wool is able to sustain a greater per cent. of stretch than the ewes' wool. In the other breeds, however, the relations are the same, the higher stretch corresponding with the higher strain.

If now we compare the figures representing the different parts of the fleece, we find that in some cases there is a gradual increase from the shoulder to the hip as regards the strength, while as regards the stretch there appears to be no regularity. That is to say for the Cotswold of both sexes and the Lincoln and Oxford ewes the side is stronger than the shoulder, and the hip than the side samples. In all other cases the side wool appears to be the weakest and the hip wool the strongest. But all of the figures of this table clearly show that no fixed relation prevails between the amount of the strain and the precentage of stretch, though such a relation might occur if we had in all cases fibers of the same degree of fineness. But it would be exceedingly difficult and almost impossible to secure the data for such a comparison unless time were no consideration.

In the wools of the cross-bred animals there seems to have been no improvement in either strength or stretch as a result of the cross, for in all cases both stretch and strain are lower than in the original breeds of either side. It must, however, be remarked that the samples represented in these figures were taken from animals which probably received no special care in feeding and management, and the fibers may have suffered to some extent either from exposure or bad nutrition. Yet the figures to be given further on for the grades of the Boston and Philadelphia markets will scarcely sustain this view, and for the present at least, and until we have been able to study material from animals concerning which the conditions of feeding and management are known, we must believe that the discrepancies, if they may be so considered, are due to the influence of crossing.

Passing to the next table, No. XIX, we have an opportunity to study the influence of age of the animal upon the qualities under consideration. Here, as before, the figures are classified, first as to breed, then as to sex, then as to age, and finally as to parts of the fleece. And here is well illustrated the paucity of the results we have to work upon, for while there seem to be a great many results as a whole, we must depend in many cases upon a single individual for the determination of these relations in any given breed. If we look over Table XIX we find consider-

* These figures are collected in Table XVIII, given further on.

able variations in the strength of the wool, both in different animals of the same age and in different parts of the same animal, which shows the importance of a large number of tests in each case. But from the general averages we have been able to obtain from them we have some interesting facts. These averages are collected in Table XX. They show, as a general rule, that the strongest wool is produced upon animals of about two years of age, or at the second shearing, though there are some exceptions to this rule. Thus, while in the Cotswold rams we have the strongest at two years, in the ewes we have it at one. In the Lincoln ram we have it stronger at one, and in the ewe at two. In the Southdown both the rams' and ewes' wools are stronger at one year than at two; while the Merino wool appears to attain a maximum strength at two years in the case of the rams and one in case of the ewes. But upon further examination we shall note another interesting point. We find that these wools attain a maximum strength at a given age, and show a certain falling off with increase of age. But this does not continue indefinitely. After the first decline, which may be rather decided, there is a gradual increase of strength with increase of age, and a second maximum may be reached at 4, 5, or even beyond this, higher than the first. This appears more marked in the coarse wools than in the Merino. But in the latter we have so many more tests, that this relation may be only accidental, and what is true for the Merino may be true for all other breeds as well; that is, after the first maximum is reached there is little variation in the strength of the wool, and the wool of the older animal is as good as regards strength as that of a younger one. But if, as we have already shown, the diameter of the fiber increases with the age of the animal, we should also expect that there would be an increase in the strength. It appears, then, that this relation does hold good here, for we have found that in the coarse-wooled breeds the increase in size of the fiber corresponds with increase in the age with greater regularity than in the Merino, and so we find here that this relation, as we are able to trace it, is more marked in the coarse wools than in the Merinos. But, as we have already intimated, this difference in the two classes of wools must be considered with reference to the number of samples examined in each case, and its existence as a general fact must still remain an open question.

When we examine the relations of stretch to age we find somewhat similar conditions, and the maximum corresponds in most cases with from one to two years in the case of the long and coarse wools, and with five or six years in the case of the merino. It is greatly to be regretted that we have not more figures for this comparison; but taken as a whole we believe we may conclude that in most cases the strength and stretch, like the fineness, will increase with the age of the animal, at least up to the limits of its profitable wool-producing capacity.

In Tables XXI, XXII, and XXIII we have results collected and arranged to show the influence of the folds or wrinkles of the Merino race upon the characteristics of the staple as regards strength and stretch. In the first table, No. XXI, we have them divided into two classes, one class including results for samples from the tops of folds, the other from between the folds. In glancing over the figures, either for strain or stretch, in this table we see considerable variation from sample to sample as well as in the relations between strain and stretch in each case. But what is more important is, that in the figures representing the fiber from between the wrinkles we find less variation in the strength from sample to sample, though the average strength is lower. The latter condition is to be expected also, for we remember that the fiber from between the folds is much finer than that grown upon them, and the strain should naturally be less in the former case than in the latter. But we find the general average for percentage of stretch in the fibers from between the folds greater than in the others, though the difference is not great. In view of the relations already developed this was scarcely to be expected.

In Table XXII the results of Table XXI are classified with reference to the portion of the fleece represented, and here we find the same relations to hold true. The wool from between the wrinkles is weaker than that from the top, while in almost every case the stretch is higher in the former than in the latter, whatever may be the source of the sample. We have an exception to this rule in No. 45, neck. Here the wool from the top of the wrinkle proves more elastic than that from between the folds. But as regards the influence of different parts of the fleece upon the quality of the wool upon the folds and between them there does not seem to be sufficient regularity to establish a law.

In Table XXIII we have a collection of the averages deduced in the two preceding tables, and we have in a condensed form the facts already set forth. We see that the wool from top of wrinkle is stronger but less elastic than that from between the wrinkles when taken as a whole both in ram and ewe, and it appears also to be true whatever be the source of the sample in the fleece. We may therefore accept it as a general rule, and it shows that in the strength and elasticity, as well as in the fineness, the wool from the folds is less valuable than that from the portion of the fleece where no folds occur, and it would therefore appear that if it be possible to secure as much wool without them as with them they should be dispensed with if this be within the range of the breeder's art.

In the preceding tables we have presented the data showing the relations of the various conditions of breeding upon each of characteristics of the fiber we have under consideration, and have thus furnished an opportunity to study each one separately. It now remains to bring together all the results, or rather the averages, they furnish to show the influence of the various conditions upon all the qualities examined collectively. To this end we have gathered from the several tables the general averages obtained. What is there shown will be better understood by reference to them, Tables XXIV to XXVI inclusive. In the first place, we have in Table XXIV all the general averages showing the influence of breed upon the fiber, in the next the influence of age, and in the last the rela-

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tion between the number of crimps per inch, and the fineness, strain, and stretch. Referring to the tables, then, we find in Table XXIV, at the top, a section in which is given, under the tables, number of crimps per inch, length, fineness, strain, and stretch, the general average obtained for each in each breed, with no reference to any other quality. But we must call attention to the seeming advantage of the Leicester as regards length. It must be borne in mind that most of the material for these examinations was collected in September from the bodies of the animals, and that at this time the wool had acquired only half its annual growth. On the other hand, the Leicester wool examined was that of one year's growth, and had acquired its full length. In other particulars the comparisons may be made without reserve. The figures of this section show, then that, the Cotswold and Leicester breeds produce the longest fiber, and that in this respect the Lincoln is somewhat inferior to these two. These three constitute the long-wooled breeds. In the other wools the Downs occupy a position between the Merino and long-wools, the Oxford and Hampshire being of about equal length and longer as a rule than Southdown. The latter in turn has about the same length as the American Merino. The Merino wools we have examined have an average length of 1.5 inches, which shows that the staple in full growth and development should have an average length in crimp of about three inches. In fineness we find the Merino to take the lead, as might naturally be expected. This is followed by the Southdown and Hampshiredown, which resemble it closely in very many peculiarities of form and quality, the Southdown being the finer of the two, while the other breeds stand in the following order: Lincoln, Leicester, Cotswold, and Oxforddown. The Oxforddown is coarser than either of the two breeds from which it sprang, and thus shows to some extent the influence of the cross in the development of strength and vigor. But now when we come to examine the figures for strength of the fiber represented in the strain, we find the order somewhat changed, and the law that the strain should increase with the diameter of the fiber somewhat interfered with. Thus, with regard to the strain, the order of strain from the weakest to the strongest is as follows: Merino, Southdown, Leicester, Lincoln, Oxford, and Cotswold. That is, whereas we find the Lincoln finer than the Leicester and the Cotswold than the Oxford, we unexpectedly find the same order as regards strength, the Lincoln and Cotswold, which, because of the smaller amount of material they contain, should be able to resist a less strain than the Leicester and Oxford respectively, being really the stronger, thus showing conclusively, as far as these figures go, that the general rule that has been adopted by many of the best authorities on wool, that there is a direct relation between the size of the fiber or its diameter and its strength, is unjust and should not be accepted. The differences here shown are quite sufficient to disprove the rule.

So also with regard to stretch. It is naturally to be expected that, for the same material, an increase of cross-section of the specimen tested should correspond with an increased stretch it should sustain. But we find that this is by no means the case with wools, and differences in quality from breed to breed are very manifest here. The Merino, which has the smallest diameter, should also have the smallest percentage of stretch; but we find this latter in the Southdown, which is much coarser. So also we find that while the Merino, having an average fineness of 2.131 centimillimeters, has a percentage of stretch equal to 28.70; the Oxford, Cotswold, Leicester, and Lincoln, which are nearly or quite twice as coarse, stretch only from 33 to 35 per cent. in a length of 20 millimeters. This shows that in reality the Merino wool is apparently much more elastic than that of other breeds, while of the coarse wools the Cotswold and Lincoln are the most elastic. As we shall see further on, however, in the comparison of strains and stretch for the fibers reduced to the same diameter, the difficulties apparent here are thoroughly cleared up. This point is worthy of much more thorough and extensive study than we have thus far been able to devote to it, but we are fortunately now in possession of material for the purpose, and hope at some future time to present data of a much more definite character, that will afford conclusions that may be accepted as a guide in this interesting and valuable branch of sheep-breeding and production of wool.

The comparative elasticity of the wools of different breeds will be shown in a different manner elsewhere in this report, so that we need discuss them no further here. The results obtained by the two methods show the reliability of the total stretch as here stated, taken in connection with the fineness, as an indication of this quality of the fiber.

In the continuation of this table we have these same relations between length and fineness, strain and stretch, as affected by sex and portion of fleece, fully illustrated. From these figures it appears that in the Cotswold and Southdown the rams produce the longer wool, while in the other races the ewes take the lead in this particular. It would therefore appear that for the same weight of carcass, and hence the same extent of skin surface, the ewes should be better wool-producers than the rams in all the races except the two here mentioned. But as regards the portions of the fleece, it appears that the longest fiber is produced on the side and hip in all the coarse-wooled breeds, while in the Merino the neck and shoulder are more favored in this respect. Indeed, it is probable that the neck samples here represented were taken from so near the shoulder that they should really be classed with that portion of the fleece. So we also find, if we exclude the belly wool—which, as we shall see further on, is very inferior in many particulars—the finest wool as a rule is found upon the shoulder and side, with the predominance in favor of the former. In the Cotswold and Merino we find the finer wool on the shoulder in both cases of ram and ewe. In the Lincoln the finer wool is upon the side in both ram and ewe, while in the Downs the ram produces the finer wool on the shoulder and the ewe on the side.

But as regards strain we find the stronger wool invariably upon the hip, though the wool of this part is not always coarsest, proving again that the strongest resistance to strain does not always correspond with the greatest area of cross-section in the sample tested. After the hip the greatest strain varies between the shoulder and side, being found greater sometimes in one case and sometimes in the other, and nearly equally divided. But the variations between the two are often comparatively wide, wider than the difference in fineness of the two parts would lead one to expect. Thus, in case of the Cotswold ram, we find a difference of nearly 7 grams in favor of the side, and of only about 2 in favor of the side in the case of the ewe. On the other hand, in the case of the Lincoln ram we find a difference of only about 3.4 grams in favor of the shoulder, while in the Lincoln ewe the difference is nearly 7 in favor of the side. In the Southdown they are nearly equal in both cases, and in the Oxford the difference is only 1 or 2, while in the Merino they are also very nearly equal. But we find that as regards the elasticity of the fiber the tendency to the highest standard is toward the hip, and that the latter and the side furnish, as a general rule, the higher stretch. It is true that the shoulder wool is rather finer than that of other parts, and the stretch should therefore be expected to be lower in that part; but the relation between the fineness and stretch is not sufficiently marked to account for the differences we find here. So that when we come to consider the wool as a whole, and its value for the textile industries, one quality counterbalances another to a large extent, and there would seem to be less necessity, and even less desirability, for dividing the fleeces in grading than has popularly been supposed. But these figures will bear further comparison and further study, and we hope and believe that breeders and manufacturers alike will find in them much of interest and value for practical application in their respective pursuits.

We have next to consider the influence of age upon the different qualities of the fiber, as illustrated in the general averages of all the tables we have presented, and as collected in Table XXV. Here the distinctions due to age are the same as previously described in the consideration of previous tables. In all cases in which the age falls below one year, and is not otherwise given, it is simply stated by the term "lamb." But at the same time it may be considered that the animals represented were of the spring drop of the same year, and that the wool when taken had had a growth of about five to seven or eight months. Lambs and six months animals are therefore practically of about the same age. The wool of animals one year or over was, as has already been stated, taken in September, after a clip made between April 15 and May 1, as a general rule having had about half its annual growth. Now, when we compare the figures of this table as regards the length, we find that the young animals have the power of producing wool twice as rapidly as fully-developed animals, for in all cases the lambs' wool is longer than that of older sheep, while in many cases it is fully twice as long. How long this rapid growth would continue we have had no opportunity to determine, but we see that at the age of one year, though slightly more rapid than at a more advanced age, the difference in each case is very small. On the other hand, with an increase of age there seems to be a tendency toward an increased size of fiber and that the staple produced becomes coarser with the advance of years. We may see exceptions to this rule in all the breeds, but in general this tendency undoubtedly prevails. So also we have a tendency toward increase of strain, though here we find exceptions, too. The stretch fluctuates, and in some cases even exhibits a tendency to decline, showing that the increase of age is probably accompanied by a decrease in the elastic quality of the wool produced. There can be no doubt, therefore, that if all the qualities we have studied be taken into account, the sheep reaches its maximum capacity for wool production at the age of two or three years, and that beyond that age the staple is likely to decline, both as to quantity and quality. We may find exceptions to this in animals well fed and especially well cared for; but in large flocks, when no extraordinary attention is received by the animals, they will probably produce wool of lower standard at six years of age than at two or three.

In Table XXVI we have a comparison of the general averages to show the relation between the number of crimps per inch in the fiber and the other qualities heretofore named. It shows that as a general rule in the Merino, in which it is by far the most important, the diameter of the fiber decreases and the fineness consequently increases with an increase in the number of crimps per inch. But when we carefully examine the table we find that the relation does not always hold good, and that sometimes with very fine fiber we may have very little crimp, and *vice versa*. However, it holds good for the final averages, showing that it is reliable for the majority of cases, and it may therefore be accepted both by breeders and manufacturers as a tolerably fair indication of fineness, even though it may not be an absolute guide.

As regards the strain and stretch, the relation between them and the fineness already pointed out here find application, and here, as elsewhere, definite relations appear to be wanting.

TABLE XIII.—*Showing influence of length of fiber tested upon strain and stretch.*

Catalogue number of samples	66. SIDE.				66. SIDE.				66. SIDE.				66. SIDE.			
Length of fiber tested	1 centimeter.				2 centimeters.				3 centimeters.				4 centimeters.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	21.50	5.00	[illegible]	5.00	16.50	8.50	[illegible]	10.25	31.00	12.50	22.00	10.25	23.50	13.50	30.00	16.50
	13.00	4.75	31.00	[illegible]	18.75	9.50	22.00	8.00	17.00	10.00	23.00	10.00	17.00	13.25	26.00	18.50
	21.00	5.00	25.25	5.00	20.00	9.00	23.50	9.00	24.25	12.50	23.00	11.00	23.00	14.25	17.50	16.75
	20.00	4.00	31.00	4.75	23.00	9.25	20.25	8.25	24.50	12.25	31.50	12.25	18.25	17.25	20.00	14.75
	14.50	5.00	23.50	5.00	22.50	8.75	37.00	10.25	16.00	9.00	30.50	12.50	16.50	9.50	22.00	13.25
	14.00	4.25	21.00	6.00	14.00	6.00	34.75	8.00	25.50	13.00	24.75	13.50	37.00	15.50	21.00	16.00
	32.00	5.75	21.00	5.50	18.00	7.00	20.50	10.00	17.50	11.00	22.00	8.00	24.75	14.00	23.25	15.75
	32.50	5.00	26.25	4.25	26.50	9.50	19.50	7.50	15.00	11.75	19.00	10.25	19.50	12.00	24.00	18.00
	16.50	4.00	20.00	3.75	13.00	7.00	30.00	8.00	18.00	13.00	23.00	12.00	20.00	7.00	12.00	9.25
	20.25	4.75	36.00	5.00	16.25	8.50	23.50	7.25	22.00	12.50	16.00	11.00	13.00	11.75	20.50	15.25
	33.50	5.00	24.25	5.00	26.50	9.50	27.50	8.25	15.00	12.00	18.50	10.50	32.00	17.25	21.75	12.50
	27.50	5.50	20.00	4.50	11.50	7.50	39.75	9.00	22.00	5.00	24.00	12.00	31.25	15.00	15.00	15.25
	26.00	4.00	19.75	4.25	34.00	10.25	33.00	7.50	15.00	11.50	18.00	11.25	35.00	14.50	13.00	12.50
	18.50	4.50	35.00	6.00	17.75	8.50	38.00	9.00	39.75	15.00	22.50	11.00	24.75	14.50	18.00	15.50
	20.00	6.00	20.00	5.75	17.75	6.00	18.00	8.50	25.25	11.00	31.00	11.75	24.00	17.00	26.00	14.75
Total	330.25	71.50	396.00	74.75	300.00	124.75	445.25	129.25	327.75	172.00	348.25	107.25	322.50	209.75	316.00	224.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	36.00	555.65	6.00	60.00	39.75	613.52	10.25	51.25	39.75	613.52	13.50	45.00	37.00	571.08	18.50	46.25
Lowest	13.00	200.65	3.75	37.50	11.50	177.50	6.00	30.00	15.00	231.52	5.00	16.67	12.00	185.22	7.00	17.50
Average	23.87	368.42	4.87	48.70	24.84	383.49	8.46	42.30	22.53	347.74	11.30	37.67	22.51	347.43	14.47	36.18
Tests above average	13		17		14		17		15		16		15		19	
Tests below average	17		13		16		13		15		14		15		11	

Catalogue number of samples	66. SIDE.				66. SIDE.				64. SIDE.				64. SIDE.			
Length of fiber tested	5 centimeters.				6 centimeters.				2 centimeters.				4 centimeters.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	27.00	20.00	30.25	13.75	21.90	21.00	26.75	23.75	24.50	5.00	34.00	7.50	40.25	13.00	32.00	14.00
	21.50	14.25	35.00	19.00	32.00	25.00	22.25	17.50	36.25	6.50	33.00	8.00	29.25	15.25	33.00	14.00
	40.00	22.75	20.50	18.50	19.00	20.00	14.00	11.50	27.50	4.00	25.75	6.50	34.00	14.25	27.50	13.00
	39.00	17.00	20.50	14.50	20.00	25.00	24.00	20.00	32.00	7.25	47.00	9.00	34.00	17.00	30.50	8.50
	33.75	16.50	36.00	17.25	15.00	14.75	17.00	13.50	26.75	8.75	38.00	8.50	32.25	14.00	19.00	9.50
	25.25	17.00	20.00	10.25	16.00	14.00	14.00	18.50	35.00	8.00	27.00	9.00	28.00	10.00	26.25	13.25
	17.00	16.00	29.25	18.50	24.00	21.50	17.50	12.00	27.50	8.00	26.00	6.50	20.00	11.00	27.25	15.50
	22.00	17.75	27.00	17.25	23.00	25.50	18.00	21.25	29.00	7.75	33.00	9.00	34.00	13.00	28.75	12.25
	18.50	12.00	25.00	17.00	14.00	19.75	23.00	14.00	22.50	8.50	42.00	9.00	31.00	14.75	31.25	17.00
	17.75	16.00	31.00	18.00	16.00	12.00	20.75	21.50	26.00	8.25	34.75	8.50	28.75	9.25	29.00	16.00
	22.50	20.00	26.00	17.75	20.50	17.00	30.00	19.75	34.50	6.50	22.50	7.75	33.00	14.25	30.50	14.25
	32.50	19.25	27.00	18.00	31.00	21.50	26.00	18.50	28.00	10.00	36.75	6.50	32.00	15.00	36.75	14.50
	36.00	21.00	15.00	14.00	27.00	22.00	19.00	18.50	26.50	6.50	34.50	7.25	21.25	10.50	35.75	17.00
	27.00	16.75	25.25	19.25	19.00	21.00	18.00	11.00	26.25	7.25	27.00	5.50	20.00	12.25	27.00	19.25
	26.00	17.00	33.00	19.00	21.25	15.00	21.00	16.00	28.00	6.00	33.25	6.25	40.00	17.25	29.50	12.25
Total	385.75	263.25	404.75	252.25	327.75	295.00	321.25	256.75	435.25	109.25	494.50	114.75	442.25	201.25	413.00	200.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	40.00	617.38	22.75	45.50	32.00	493.91	25.50	42.50	47.00	725.44	10.00	50.00	40.00	617.38	17.25	46.12
Lowest	17.00	262.39	10.25	20.50	14.00	216.08	11.00	18.33	22.00	339.56	4.00	20.00	19.00	293.26	8.00	20.00
Average	28.35	406.17	17.28	34.56	21.63	333.85	18.52	33.86	30.99	478.32	7.46	37.30	29.50	455.32	13.39	33.47
Tests above average	13		14		12		17		14		18		15		17	
Tests below average	17		16		18		13		16		12		14		13	

TABLE XIII.—*Showing influence of length of fiber tested upon strain and stretch*—Continued.

Catalogue number of samples..	35. SIDE.		35. SIDE.		39. SIDE.		39. SIDE.		59. SIDE.	
Length of fiber tested	2 centimeters.		4 centimeters.		2 centimeters.		4 centimeters.		2 centimeters.	
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	gms.	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*
	49.00	8.50	37.00	9.00	47.00	16.00	31.75	15.00	43.00	7.00
	58.50	9.00	47.00	7.50	36.00	11.00	44.50	17.00	29.50	3.25
	57.00	8.50	45.75	9.50	43.00	6.50	36.00	15.75	40.00	8.25
	35.50	8.00	36.00	7.50	35.00	13.50	25.50	10.00	43.00	8.25
	52.75	8.50	24.00	9.00	46.00	12.00	52.50	14.50	31.00	7.50
	49.75	7.50	33.00	9.00	26.00	3.00	48.75	14.25	42.00	9.50
Actual measurement in grams and millimeters.	50.00	8.00	37.00	5.25	27.00	4.00	22.50	13.25	30.25	6.00
	38.00	8.50	40.50	9.00	35.00	15.00	42.00	17.25	34.75	9.00
	31.00	9.00	50.00	8.50	45.25	14.50	46.00	15.25	44.00	8.00
	58.00	9.00	36.00	8.00	34.00	14.00	48.75	16.00	46.00	9.00
	34.00	3.00	33.00	4.50	52.00	14.75	31.00	16.50	35.50	7.00
	35.00	7.00	27.00	8.00	43.75	16.00	19.00	6.00	39.75	8.00
	39.75	6.00	23.00	6.50	36.00	14.75	30.00	12.75	40.00	9.25
	61.00	8.00	23.00	8.00	31.00	16.50	31.00	12.75	37.50	7.75
	35.75	8.00	25.00	1.50	34.50	15.50	27.00	13.75	40.00	7.50
Total	686.00	116.50	517.25	110.75	571.50	187.00	536.25	210.50	576.25	115.25
	612.25	110.75	559.00	216.00	523.00	212.25	329.00	106.50	373.75	119.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*gms.*	*grs.*	*mm.*	*p. ct.*	*gms.*	*grs.*	*mm.*	*p. ct.*	*gms.*	*grs.*	*mm.*	*p. ct.*	*gms.*	*grs.*	*mm.*	*p. ct.*	*gms.*	*grs.*	*mm.*	*p. ct.*
Highest	61.00	941.51	9.50	47.50	52.50	810.32	17.25	46.12	57.00	879.77	9.50	47.50	48.00	740.86	16.50	41.25	36.00	555.65	9.00	45.00
Lowest	23.00	354.99	1.50	7.50	19.00	293.26	3.00	7.50	25.50	393.58	3.25	16.25	17.00	262.39	7.00	17.50	10.00	154.35	4.00	20.00
Average	40.10	618.93	7.57	37.85	36.92	569.85	13.25	33.12	39.61	611.36	7.83	39.15	36.06	556.57	14.27	35.67	23.42	361.48	7.52	37.60
Tests above average	10		20		12		20		11		10		17		20		15		11	
Tests below average	20		10		11		0		12		11		13		10		15		15	

Catalogue number of samples..	59. SIDE.		60. SIDE.		60. SIDE.		61. SIDE.		61. SIDE.	
Length of fiber tested	4 centimeters.		2 centimeters.		4 centimeters.		2 centimeters.		4 centimeters.	
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	gms.	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*
	15.25	7.00	19.50	15.50	49.00	8.00	24.00	8.25	26.25	7.25
	25.25	9.75	25.25	14.25	42.50	8.50	40.00	7.50	37.00	14.00
	22.00	15.00	16.00	10.00	47.00	9.25	24.00	8.00	29.00	13.00
	29.50	14.25	27.00	16.00	42.00	9.50	29.00	8.50	35.00	18.00
	21.00	12.75	22.00	13.75	42.50	8.25	38.00	8.00	27.00	8.25
	26.00	13.00	26.25	12.00	47.75	9.50	37.50	9.00	39.75	15.00
Actual measurement in grams and millimeters.	33.00	15.00	24.00	16.00	47.00	7.25	41.00	9.50	30.00	13.00
	17.50	6.00	16.50	15.50	42.00	8.00	32.00	8.50	37.00	14.00
	21.00	14.00	21.00	13.00	33.00	8.50	39.00	8.25	31.00	14.00
	26.00	14.00	15.25	13.50	34.75	6.50	36.50	8.00	38.00	16.50
	29.00	15.00	25.00	6.00	37.50	6.25	25.00	8.25	25.00	13.50
	25.00	12.25	32.00	14.00	52.00	10.00	39.50	8.50	30.00	15.00
	28.00	13.25	23.00	14.00	34.00	8.50	36.25	6.50	44.50	16.50
	20.00	11.75	21.25	13.00	29.75	7.00	37.75	8.75	30.25	13.50
	21.25	9.75	18.00	11.00	29.00	8.00	44.00	8.50	35.00	15.50
Total	359.75	182.75	332.00	197.50	609.75	113.00	523.50	124.00	494.75	207.00
	501.00	225.25	393.00	130.25	373.75	130.00	360.75	221.00	333.25	222.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*gms.*	*grs.*	*mm.*	*p. ct.*	*gms.*	*grs.*	*mm.*	*p. ct.*	*gms.*	*grs.*	*mm.*	*p. ct.*	*gms.*	*grs.*	*mm.*	*p. ct.*	*gms.*	*grs.*	*mm.*	*p. ct.*
Highest	33.00	509.34	16.00	40.00	52.00	802.00	10.00	50.00	44.50	686.84	18.00	45.00	31.00	478.47	10.25	51.25	28.00	432.17	17.50	43.75
Lowest	15.00	231.52	6.00	15.00	24.00	370.42	6.25	31.25	25.00	385.87	7.25	18.12	18.50	285.54	7.25	36.25	16.00	246.95	11.00	27.50
Average	23.05	355.77	12.67	31.67	37.77	582.96	7.90	39.50	33.19	512.27	14.40	36.00	25.55	394.35	8.67	43.35	23.10	356.54	14.78	36.95
Tests above average	15		21		13		24		14		18		17		14		10		16	
Tests below average	15		0		17		6		16		12		13		11		14		14	

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity.*

COTSWOLD.

Catalogue No. of samples..	170.				170.				170.				170.				170.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	11.75	1.00	0.25	0.75	16.50	1.00	0.00	1.00	23.50	1.00	0.25	0.75	17.50	1.00	0.00	1.00	16.75	1.00	0.00	1.00
	12.25	2.00	0.75	1.25	17.00	2.00	0.50	1.50	24.50	2.00	0.50	1.50	18.50	2.00	0.50	1.50	17.50	2.00	0.50	1.50
	12.50	3.00	1.25	1.75	17.50	3.00	2.00	1.00	25.75	3.00	1.00	2.00	19.50	3.00	1.00	2.00	18.00	3.00	1.00	2.00
	13.00	4.00	1.75	2.25	18.00	4.00	1.75	2.25	26.50	4.00	1.75	2.25	20.50	4.00	1.50	2.50	18.75	4.00	1.75	2.25
	13.50	5.00	2.25	2.75	18.75	5.00	2.25	2.75	27.75	5.00	2.25	2.75	21.75	5.00	2.25	2.75	20.25	5.00	2.25	2.75
	15.25	6.00	3.00	3.00	21.75	6.00	3.00	3.00	31.25	6.00	3.00	3.00	24.75	6.00	3.00	3.00	22.75	6.00	3.00	3.00
	17.50	6.50	.....	.....	24.75	7.00	3.75	3.25	36.50	7.00	3.75	3.25	28.75	7.00	3.75	3.25	27.25	7.00	3.75	3.25
	.....	.....	.....	.....	28.50	8.00	.....	.....	.....	.....	.....	.....	29.75	7.25	.....	.....	30.25	8.00	.....	.....
	15.00	1.00	0.25	0.75	16.50	1.00	0.25	0.75	17.50	1.00	0.25	0.75	18.50	1.00	0.00	1.00	10.75	1.00	0.25	0.75
	16.50	2.00	0.75	1.25	17.00	2.00	0.50	1.50	18.50	2.00	0.75	1.25	19.50	2.00	0.50	1.50	11.25	2.00	0.75	1.25
	16.75	3.00	1.00	2.00	17.75	3.00	1.00	2.00	19.50	3.00	1.00	2.00	19.75	3.00	1.00	2.00	11.75	3.00	1.00	2.00
	17.75	4.00	1.75	2.25	18.50	4.00	1.75	2.25	20.50	4.00	1.75	2.25	20.75	4.00	1.75	2.25	12.50	4.00	1.75	2.25
	18.50	5.00	2.25	2.75	19.50	5.00	2.25	2.75	21.75	5.00	2.25	2.75	22.50	5.00	2.25	2.75	13.50	5.00	2.25	2.75
	20.50	6.00	3.00	3.00	22.75	6.00	3.00	3.00	24.50	6.00	3.00	3.00	25.50	6.00	3.00	3.00	14.50	6.00	3.00	3.00
	24.50	7.00	3.75	3.25	26.50	7.00	3.75	3.25	28.50	7.00	3.75	3.25	27.25	6.50	.....	.....	16.75	7.00	.....	.....
	26.50	7.50	.....	.....	29.50	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	16.00	1.00	0.00	1.00	16.50	1.00	0.00	1.00	15.00	1.00	0.00	1.00	19.25	1.00	0.00	1.00	15.25	1.00	0.00	1.00
	17.50	2.00	0.50	1.50	17.50	2.00	0.75	1.25	16.25	2.00	0.50	1.50	20.25	2.00	0.50	1.50	16.25	2.00	0.50	1.50
	18.50	3.00	1.00	2.00	18.25	3.00	1.00	2.00	17.25	3.00	1.00	2.00	20.75	3.00	1.00	2.00	17.25	3.00	1.00	2.00
	19.00	4.00	1.75	2.25	18.75	4.00	1.75	2.25	17.75	4.00	1.75	2.25	21.75	4.00	1.75	2.25	18.50	4.00	1.75	2.25
	20.00	5.00	2.25	2.75	20.50	5.00	2.25	2.75	18.00	5.00	2.25	2.75	23.50	5.00	2.25	2.75	19.50	5.00	2.25	2.75
	23.00	6.00	3.00	3.00	23.00	6.00	3.00	3.00	21.25	6.00	3.00	3.00	26.75	6.00	3.00	3.00	21.50	6.00	3.00	3.00
	26.25	6.75	.....	.....	26.75	7.00	3.75	3.25	24.25	7.00	3.75	3.25	30.75	7.00	3.75	3.25	24.75	7.00	3.75	3.25
	.....	.....	.....	.....	30.50	7.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

COTSWOLD.

Catalogue No. of samples..	171.				171.				171.				171.				171.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	18.75	1.00	0.00	1.00	18.75	1.00	0.00	1.00	11.75	1.00	0.25	0.75	11.75	1.00	0.25	0.75	17.50	1.00	0.25	0.75
	19.50	2.00	0.75	1.25	19.50	2.00	0.75	1.25	12.50	2.00	0.75	1.25	12.50	2.00	0.75	1.25	18.75	2.00	0.75	1.25
	20.00	3.00	1.00	2.00	19.75	3.00	1.00	2.00	13.25	3.00	1.25	1.75	12.75	4.00	1.75	2.25	19.50	3.00	1.00	2.00
	20.75	4.00	1.75	2.25	20.50	4.00	1.50	2.50	13.50	4.00	1.75	2.25	13.50	5.00	2.50	2.50	20.25	4.00	1.75	2.25
	22.50	5.00	2.25	2.75	21.50	5.00	2.25	2.75	14.25	5.00	2.50	2.50	14.50	6.00	3.00	3.00	20.25	5.00	2.25	2.75
	25.25	6.00	3.00	3.00	24.50	6.00	3.00	3.00	15.50	6.00	3.00	3.00	16.25	7.00	3.75	3.25	23.50	6.00	3.00	3.00
	28.75	7.00	3.75	3.25	28.50	7.00	3.75	3.25	.....	.....	.....	.....	19.00	8.00	4.75	3.25	27.75	7.00	3.75	3.25
	32.75	7.75	.....	.....	30.50	7.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30.75	7.75	.....	.....
	10.75	1.00	0.25	0.75	9.75	1.00	0.25	0.75	11.25	1.00	0.25	0.75	17.50	1.00	0.25	0.75	13.75	1.00	0.00	1.00
	11.50	2.00	0.75	1.25	10.50	2.00	0.75	1.25	14.25	2.00	0.75	1.25	17.75	2.00	0.75	1.25	14.50	2.00	0.75	1.25
	11.75	3.00	1.25	1.75	11.00	3.00	1.25	1.75	14.50	3.00	1.25	1.75	18.50	3.00	1.00	2.00	14.75	4.00	1.75	2.25
	11.75	4.00	2.00	2.00	11.50	4.00	1.75	2.25	15.00	4.00	2.00	2.00	19.50	4.00	1.75	2.25	16.25	5.00	2.25	2.75
	12.50	5.00	2.50	2.50	12.25	5.00	2.50	2.50	15.75	5.00	2.50	2.50	20.25	5.00	2.25	2.75	18.75	6.00	3.00	3.00
	13.25	6.00	3.25	2.75	13.25	5.25	.....	.....	16.75	6.00	3.00	3.00	23.50	6.00	3.00	3.00	19.25	6.50	.....	.....
	14.75	7.00	3.75	3.25	.....	.....	.....	.....	18.50	7.00	3.75	3.25	25.75	7.00	3.75	3.25	.....	.....	.....	.....
	15.50	7.25	.....	.....	.....	.....	.....	.....	19.75	8.00	.....	.....	27.25	7.25	.....	.....	.....	.....	.....	.....
	16.00	1.00	0.00	1.00	8.75	1.00	0.25	0.75	12.25	1.00	0.25	0.75	18.50	1.00	0.25	0.75	16.75	1.00	0.25	0.75
	16.50	2.00	0.50	1.50	9.50	2.00	0.75	1.25	13.25	2.00	0.75	1.25	20.00	2.00	0.75	1.25	18.50	2.00	0.75	1.25
	17.50	4.00	1.50	2.50	9.75	3.00	1.25	1.75	13.50	3.00	1.00	2.00	21.25	3.00	1.00	2.00	19.50	3.00	1.00	2.00
	18.50	5.00	2.00	3.00	10.00	4.00	2.00	2.00	14.25	4.00	1.75	2.25	21.75	4.00	1.75	2.25	20.50	4.00	1.75	2.25
	20.50	6.00	2.75	3.25	11.75	5.00	3.00	2.00	16.75	6.00	3.00	3.00	22.75	5.00	2.25	2.75	21.25	5.00	2.25	2.75
	24.25	7.00	3.50	3.50	13.25	7.00	3.75	3.25	.....	.....	.....	.....	28.75	6.00	3.00	3.00	23.00	6.00	3.00	3.00
	26.50	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29.75	7.00	3.75	3.25	27.50	7.00	3.75	3.25
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	32.75	7.25	.....	.....	30.75	8.00	4.75	3.25

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

COTSWOLD.

Catalogue No. of samples..	172.				172.				172.				172.				172.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	9.25	1.00	0.25	0.75	8.25	1.00	0.00	1.00	6.50	1.00	0.25	0.75	9.75	1.00	0.25	0.75	11.50	1.00	0.00	1.00
	9.75	2.00	1.00	1.00	8.50	2.00	0.50	1.50	11.50	3.00	1.00	2.00	11.25	2.00	0.75	1.25	11.75	2.00	0.50	1.50
	10.25	3.00	1.25	1.75	8.50	3.00	1.00	2.00	11.75	4.00	1.75	2.25	11.25	3.00	1.25	1.75	12.00	3.00	1.00	2.00
	10.75	4.00	2.00	2.00	9.00	4.00	1.75	2.25	11.75	5.00	2.00	3.00	11.75	4.00	1.75	2.25	12.50	4.00	1.25	2.75
	.....	.....	.....	.....	10.50	6.00	.....	.....	11.75	6.00	2.75	3.25	12.00	5.00	2.25	2.75	13.25	5.00	2.00	3.00
	.....	.....	.....	.....	.....	.....	.....	.....	11.75	7.00	.....	.....	.....	.....	.....	.....	14.75	6.00	2.75	3.25
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17.75	7.00	3.25	3.75
	11.50	1.00	0.00	1.00	10.25	1.00	0.25	0.75	12.25	1.00	0.25	0.75	11.75	1.00	0.00	1.00	12.25	1.00	0.00	1.00
	12.50	2.00	0.75	1.25	10.75	2.00	0.75	1.25	12.50	2.00	0.50	1.50	12.00	2.00	0.50	1.50	12.75	2.00	0.50	1.50
	12.75	3.00	1.00	2.00	11.25	3.00	1.25	1.75	12.50	3.00	1.00	2.00	12.25	3.00	1.00	2.00	12.75	3.00	1.00	2.00
	13.50	4.00	2.00	2.00	11.75	4.00	1.75	2.25	12.75	4.00	1.50	2.50	12.50	4.00	1.25	2.75	13.25	4.00	1.25	2.75
	14.50	5.00	2.50	2.50	12.50	5.00	2.25	2.75	13.75	5.00	2.00	3.00	13.50	5.00	2.00	3.00	13.75	5.00	2.00	3.00
	16.00	6.00	3.00	3.00	12.75	6.00	3.00	3.00	15.25	6.00	2.75	3.25	15.25	6.00	2.75	3.25	15.75	6.00	2.75	3.25
	18.25	7.00	.....	.....	13.75	6.50	.....	.....	17.75	7.00	3.25	3.75	18.25	7.00	3.25	3.75	18.50	7.00	3.25	3.75
	.....	.....	.....	.....	.....	.....	.....	.....	21.00	8.00	4.00	4.00	20.75	8.00	4.00	4.00	21.50	8.00	4.00	4.00
	.....	.....	.....	.....	.....	.....	.....	.....	21.75	8.50	.....	.....	21.50	8.75	.....	.....	.....	.....	.....	.....
	9.00	1.00	0.25	0.75	11.75	1.00	0.25	0.75	11.75	1.00	0.25	0.75	7.00	1.00	0.25	0.75	10.25	1.00	0.25	0.75
	9.50	2.00	0.75	1.25	11.00	3.00	1.00	2.00	12.00	2.00	0.50	1.50	8.00	2.00	0.75	1.25	10.75	2.00	0.75	1.25
	10.00	3.00	1.25	1.75	11.75	4.00	1.75	2.25	12.25	3.00	1.00	2.00	8.50	3.00	1.25	1.75	11.25	3.00	1.00	2.00
	10.25	4.00	2.00	2.00	12.50	5.00	2.25	2.75	12.75	4.00	1.50	2.50	8.75	4.00	1.75	2.25	11.50	4.00	1.50	2.50
	.....	.....	.....	.....	13.50	6.00	2.75	3.25	13.00	5.00	2.00	3.00	9.75	5.00	2.25	2.75	11.75	5.00	2.00	3.00
	.....	.....	.....	.....	16.50	7.00	3.25	3.75	14.50	6.00	2.75	3.25	10.50	5.25	.....	.....	13.25	6.00	2.75	3.25
	.....	.....	.....	.....	18.75	7.75	.....	.....	17.00	7.00	3.25	2.75	.....	.....	.....	.....	15.75	7.00	3.25	3.75
	.....	.....	.....	.....	.....	.....	.....	.....	19.50	7.75	.....	.....	.....	.....	.....	.....	18.00	8.00	4.00	4.00

COTSWOLD.

Catalogue No. of samples..	173.				173.				173.				173.				173.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	16.50	1.00	0.00	1.00	13.00	1.00	0.25	0.75	21.25	1.00	0.25	0.75	19.50	1.00	0.25	0.75	18.50	1.00	0.00	1.00
	17.50	2.00	0.50	1.50	13.50	2.00	0.75	1.25	22.75	2.00	0.75	1.25	20.50	2.00	0.50	1.50	18.75	2.00	0.50	1.50
	17.75	3.00	1.00	2.00	14.25	3.00	1.25	1.75	23.75	3.00	1.00	2.00	20.50	3.00	1.00	2.00	19.50	3.00	1.00	2.00
	18.50	4.00	1.50	2.50	15.25	4.00	1.75	2.25	24.75	4.00	1.75	2.25	20.75	4.00	1.50	2.50	20.25	4.00	1.50	2.50
	20.00	5.00	2.00	3.00	16.75	5.00	2.50	2.50	26.50	5.00	2.25	2.75	21.75	5.00	2.00	3.00	21.50	5.00	2.00	3.00
	22.75	6.00	2.75	3.25	17.75	6.00	3.00	3.00	29.50	6.00	3.00	3.00	24.75	6.00	2.75	3.25	23.25	6.00	2.75	3.25
	27.00	7.00	3.25	3.75	20.50	7.00	3.75	3.25	34.00	7.00	3.75	3.25	29.25	7.00	3.24	3.75	27.50	7.00	3.25	3.75
	30.50	8.00	4.00	4.00	.....	.....	.....	.....	36.75	8.00	4.25	3.75	33.50	8.00	4.00	4.00	30.75	8.00	4.00	4.00
	32.75	9.00	.....	.....	.....	.....	.....	.....	38.50	8.25	.....	.....	36.50	9.00	.....	.....	30.75	8.25	.....	.....
	10.25	1.00	0.00	1.00	20.25	1.00	0.00	1.00	24.50	1.00	0.25	0.75	14.25	1.00	0.25	0.75	19.50	1.00	0.25	0.75
	10.75	2.00	0.75	1.25	21.00	2.00	0.50	1.50	27.50	2.00	0.75	1.25	13.50	2.00	0.75	1.25	20.53	2.00	0.75	1.25
	11.25	3.00	1.00	2.00	21.75	3.00	1.00	2.00	28.75	3.00	1.00	2.00	15.25	3.00	1.00	2.00	21.25	3.00	1.00	2.00
	11.75	4.00	1.75	2.25	22.75	4.00	1.75	2.25	29.75	4.00	1.75	2.25	16.00	4.00	1.75	2.25	22.00	4.00	1.75	2.25
	12.75	5.00	2.50	2.50	24.75	5.00	2.25	2.75	31.75	5.00	2.25	2.75	16.50	5.00	2.25	2.75	23.00	5.00	2.25	2.75
	13.50	6.00	3.00	3.00	27.75	6.00	3.00	3.00	35.50	6.00	3.00	3.00	17.75	6.00	3.00	3.00	24.50	6.00	3.00	3.00
	15.75	7.00	3.75	3.25	32.75	7.00	3.75	3.25	41.50	7.00	3.75	3.25	20.75	6.75	.....	.....	27.75	7.00	3.50	3.50
	16.25	7.25	.....	.....	36.25	8.00	4.25	3.75	44.25	7.75	.....	.....	.....	.....	.....	.....	31.50	8.00	4.00	4.00
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	32.75	8.50	.....	.....
	20.75	1.00	0.25	0.75	17.25	1.00	0.25	0.75	14.75	1.00	0.25	0.75	14.50	1.00	0.25	0.75	15.50	1.00	0.25	0.75
	22.50	2.00	0.75	1.25	19.25	2.00	0.75	1.25	15.50	2.00	0.50	1.50	15.00	2.00	0.75	1.25	15.75	2.00	0.75	1.25
	23.00	3.00	1.00	2.00	20.50	3.00	1.25	1.75	16.51	3.00	1.00	2.00	16.00	3.00	1.25	1.75	16.50	3.00	1.00	2.00
	23.75	4.00	1.75	2.25	21.50	4.00	1.75	2.25	16.75	4.00	1.50	2.50	17.00	4.00	1.75	2.25	17.50	4.00	1.50	2.50
	25.25	4.50	.....	.....	23.25	5.00	2.25	5.75	18.00	5.00	2.00	3.00	17.50	5.00	2.25	2.75	18.50	5.00	2.00	3.00
	.....	.....	.....	.....	25.75	6.00	3.00	3.00	19.50	6.00	2.75	3.25	18.75	6.00	3.00	3.00	19.75	6.00	2.75	3.25
	.....	.....	.....	.....	29.50	7.00	3.75	3.25	23.25	7.00	3.25	3.75	21.25	7.00	3.75	3.25	23.50	7.00	3.25	3.75
	.....	.....	.....	.....	32.75	7.75	.....	.....	24.75	7.75	.....	.....	21.25	7.25	.....	.....	26.50	7.75	.....	.....

TABLE XIV.—*Actul measurements, showing relation between strain, stretch, and elasticity*—Continued.

COTSWOLD.

Catalogue No. of samples..

Actual measurements in grams and millimeters.

174.				174.				174.				174.				174.			
Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
15.50	1.00	0.00	1.00	16.50	1.00	0.25	0.75	14.75	1.00	0.00	1.00	13.25	1.00	0.25	0.75	27.25	1.00	0.25	0.75
18.50	2.00	0.75	1.25	18.50	2.00	1.00	1.00	16.00	2.00	0.75	1.25	14.75	2.00	0.75	1.25	29.00	2.00	0.75	1.25
17.25	3.00	1.25	1.75	20.75	3.00	1.25	1.75	16.75	3.00	1.00	2.00	15.00	3.00	1.00	2.00	30.75	4.00	2.00	2.00
18.75	5.00	2.25	2.75	22.00	5.00	2.50	2.50	17.75	4.00	2.00	2.00	16.25	4.00	2.00	2.00	33.00	5.00	2.75	2.25
21.75	6.00	3.25	2.75	24.50	6.00	3.25	2.75	18.75	5.00	2.50	2.50	18.50	6.00	3.00	3.00	37.50	6.00	3.25	2.75
24.25	7.00	.....	.....	28.50	7.00	.....	.....	21.25	6.00	3.00	3.00	20.50	7.00	.....	.....	44.00	7.00	4.00	3.00
.....	.....	.....	.....	.....	.....	.....	.....	25.00	7.00	.....	.....	.....	.....	.....	.....	45.75	7.75	.....	.....
16.75	1.00	0.25	0.75	20.00	1.00	0.00	1.00	16.00	1.00	0.25	0.75	16.00	1.00	0.00	1.00	23.75	1.00	0.25	0.75
18.75	2.00	0.75	1.25	22.00	2.00	0.75	1.25	19.50	2.00	1.00	1.00	16.75	2.00	0.75	1.25	25.75	2.00	0.75	1.25
19.50	3.00	1.25	1.75	23.75	3.00	1.25	1.75	20.00	3.00	1.25	1.75	17.75	3.00	1.00	2.00	26.50	3.00	1.25	1.75
20.50	4.00	2.00	2.00	24.50	4.00	2.00	2.00	21.25	4.00	2.00	2.00	18.50	4.00	2.00	2.00	27.50	4.00	1.75	2.25
21.75	5.00	2.50	2.50	26.75	5.00	2.75	2.25	24.00	6.00	3.00	3.00	19.50	5.00	2.50	2.50	29.00	5.00	2.50	2.50
24.25	6.00	3.25	2.75	29.50	6.00	3.25	2.75	26.00	6.75	.....	.....	22.25	6.00	3.25	2.75	33.25	6.00	3.25	2.75
28.25	7.00	4.00	3.00	33.00	7.00	.....	.....	.....	.....	.....	.....	25.75	7.00	.....	.....	39.50	7.00	.....	.....
15.50	1.00	0.25	0.75	15.00	1.00	0.25	0.75	11.00	1.00	0.00	1.00	14.50	1.00	0.25	0.75	26.75	1.00	0.00	1.00
18.50	2.00	0.75	1.25	18.00	2.00	0.75	1.25	11.75	3.00	1.00	2.00	15.00	2.00	0.75	1.25	28.50	2.00	0.75	1.25
17.50	3.00	1.25	1.75	16.50	3.00	1.00	2.00	12.50	4.00	2.00	2.00	16.50	4.00	1.75	2.25	30.50	4.00	2.00	2.00
19.00	5.00	2.25	2.75	17.25	5.00	2.00	3.00	13.50	5.00	2.50	2.50	17.25	5.00	2.50	2.50	32.50	5.00	2.75	2.25
21.50	6.00	3.00	3.00	18.25	6.00	2.75	3.25	14.50	6.00	3.00	3.00	17.50	6.00	3.25	2.75	36.25	6.00	3.25	2.75
24.00	6.75	.....	.....	20.75	6.00	3.25	2.75	17.25	7.00	4.00	3.00	22.75	7.00	4.00	3.00	39.50	7.00	.....	.....
.....	.....	.....	.....	24.50	7.00	.....	.....	19.00	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18.75	1.00	0.25	0.75	18.00	1.00	0.25	0.75	12.00	1.00	0.00	1.00	.....	.....	.....	.....	16.75	1.00	0.25	0.75
19.75	2.00	0.75	1.25	19.50	2.00	0.75	1.25	13.75	3.00	1.00	2.00	.....	.....	.....	.....	19.50	2.00	0.75	1.25
20.25	3.00	1.00	2.00	20.25	3.00	1.25	1.75	14.75	5.00	2.25	2.75	.....	.....	.....	.....	21.75	3.00	1.25	1.75
21.50	4.00	2.00	2.00	21.25	4.00	2.00	2.00	16.50	6.00	3.25	2.75	.....	.....	.....	.....	22.75	4.00	2.00	2.00
22.75	5.00	2.50	2.50	22.75	5.00	2.50	2.50	19.00	7.00	4.00	3.00	.....	.....	.....	.....	24.00	5.00	2.75	2.25
26.25	6.00	3.25	2.75	24.00	6.00	.....	.....	19.50	7.25	.....	.....	.....	.....	.....	.....	26.00	6.00	3.25	2.75
30.50	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	79.75	7.00	.....	.....
35.25	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

COTSWOLD.

Catalogue No. of samples..

Actual measurements in grams and millimeters.

175.				175.				175.				176.				176.			
Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
25.50	1.00	0.25	0.75	24.50	1.00	0.00	1.00	15.50	1.00	0.00	1.00	19.75	1.00	0.00	1.00	15.00	1.00	0.00	1.00
26.00	2.00	0.75	1.25	27.00	2.00	0.50	1.50	16.50	2.00	0.50	1.50	21.50	2.00	0.50	1.50	16.25	3.00	1.00	2.00
26.50	3.00	1.25	1.75	30.00	3.00	1.00	2.00	17.25	3.00	1.00	2.00	22.50	4.00	1.50	2.50	17.75	5.00	2.25	2.75
28.75	5.00	2.50	2.50	29.50	4.00	1.75	2.25	18.50	5.00	2.25	2.75	24.50	5.00	2.25	2.75	19.75	6.00	3.00	3.00
32.50	6.00	3.25	2.75	31.75	5.00	2.50	2.50	21.50	6.00	3.00	3.00	28.00	6.00	3.25	2.75	23.25	7.00	4.00	3.00
37.50	7.00	4.00	3.00	34.75	6.00	3.00	3.00	.....	.....	.....	.....	30.50	6.75	.....	.....	26.00	8.00	4.75	3.25
41.75	8.00	.....	.....	33.50	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	45.50	8.00	4.50	3.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
13.50	1.00	0.25	0.75	21.25	1.00	0.25	0.75	24.50	1.00	0.00	1.00	17.00	1.00	0.25	0.75	16.25	1.00	0.00	1.00
14.50	2.00	0.75	1.25	23.00	2.00	0.75	1.25	26.75	2.00	0.75	1.25	18.25	3.00	1.00	2.00	17.00	2.00	0.75	1.25
15.50	4.00	2.00	2.00	24.50	4.00	2.00	2.00	27.50	3.00	1.00	2.00	19.25	4.00	2.00	2.00	18.25	4.00	1.75	2.25
16.50	5.00	2.50	2.50	25.75	5.00	2.75	2.25	28.50	4.00	2.00	2.00	.....	.....	.....	.....	19.50	5.00	2.25	2.75
18.50	6.00	3.25	2.75	29.50	6.00	3.25	2.75	30.50	5.00	2.50	2.50	.....	.....	.....	.....	21.25	6.00	3.00	3.00
21.50	7.00	4.00	3.00	33.25	7.00	.....	.....	31.00	5.75	.....	.....	.....	.....	.....	.....	24.50	7.00	3.75	3.25
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	26.50	8.00	.....	.....
27.00	1.00	0.00	1.00	16.25	1.00	0.25	0.75	25.75	1.00	0.25	0.75	19.25	1.00	0.00	1.00	13.50	1.00	0.25	0.75
28.00	2.00	0.75	1.25	17.25	2.00	0.75	1.25	27.00	2.00	0.75	1.25	21.50	2.00	0.75	1.25	14.75	2.00	0.75	1.25
29.25	3.00	1.25	1.75	18.75	4.00	1.75	2.25	28.25	3.00	1.00	2.00	22.50	3.00	1.00	2.00	12.75	3.00	1.00	2.00
30.50	4.00	2.00	2.00	20.00	5.00	2.75	2.25	29.75	4.00	2.00	2.00	23.50	4.00	1.75	2.25	13.25	4.00	1.75	2.25
32.50	5.00	2.75	2.25	21.75	6.00	3.25	2.75	31.50	5.00	2.50	2.50	25.00	5.00	2.50	2.50	14.25	5.00	2.25	2.75
37.50	6.00	3.25	2.75	25.50	7.00	.....	.....	.....	.....	.....	.....	28.00	6.00	3.25	2.75	15.50	6.00	3.00	3.00
43.50	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	30.75	7.00	.....	.....	16.75	6.75	.....	.....
45.50	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21.50	1.00	0.25	0.75	20.75	1.00	0.00	1.00	.....	.....	.....	.....	20.25	1.00	0.00	1.00	18.50	1.00	0.25	0.75
23.00	2.00	0.75	1.25	21.50	2.00	0.50	1.50	.....	.....	.....	.....	22.50	2.00	0.75	1.25	19.75	2.00	0.75	1.25
23.75	3.00	1.25	1.75	22.50	4.00	1.75	2.25	.....	.....	.....	.....	23.25	3.00	1.00	2.00	21.00	3.00	1.25	1.75
25.00	4.00	2.00	2.00	24.50	5.00	2.25	2.75	.....	.....	.....	.....	25.00	5.00	2.25	2.75	22.50	4.00	1.75	2.25
26.50	5.00	2.75	2.25	28.50	6.00	3.25	2.75	.....	.....	.....	.....	26.25	5.75	.....	.....	24.75	5.00	3.00	3.00
32.00	6.00	.....	.....	33.00	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	28.50	7.00	4.00	3.00
.....	.....	.....	.....	36.75	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	32.00	8.00	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

COTSWOLD.

Catalogue No. of samples..	176.				176.				177.				177.				177.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	21.00	1.00	0.25	0.75	20.25	1.00	0.25	0.75	15.75	1.00	0.25	0.75	23.75	1.00	0.25	0.75	18.25	1.00	0.25	0.75
	22.50	2.00	0.75	1.25	21.50	2.00	0.75	1.25	16.50	2.00	0.75	1.25	25.50	2.00	0.75	1.25	22.25	2.00	0.75	1.25
	23.50	3.00	1.25	1.75	22.50	4.00	1.50	2.50	17.50	4.00	1.75	2.25	26.50	3.00	1.00	2.00	23.25	3.00	1.25	1.75
	24.75	4.00	2.00	2.00	23.75	5.00	2.25	2.75	18.75	5.00	2.50	2.50	28.00	4.00	2.00	2.00	24.50	4.00	2.00	2.00
	25.75	5.00	2.50	2.50	27.50	6.00	3.25	2.75	21.50	6.00	3.25	2.75	30.25	5.00	2.50	2.50	25.75	5.00	2.75	2.25
	28.75	6.00	3.25	2.75	32.50	6.75	.....	.....	25.75	7.00	4.00	3.00	34.50	6.00	3.00	3.00	.....	.....	.....	.....
	33.50	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	38.50	6.75	.....	.....	.....	.....	.....	.....
	22.25	1.00	0.25	0.75	18.50	1.00	0.00	1.00	16.75	1.00	0.25	0.75	21.00	1.00	0.25	0.75	21.25	1.00	0.00	1.00
	24.50	2.00	0.75	1.25	19.50	2.00	0.75	1.25	18.75	2.00	0.75	1.25	22.50	2.00	0.75	1.25	22.50	2.00	0.75	1.25
	25.75	4.00	1.75	2.25	21.00	4.00	1.75	2.25	19.50	3.00	1.25	1.75	23.50	3.00	1.00	2.00	23.75	3.00	1.25	1.75
	27.50	5.00	2.25	2.75	22.50	5.00	2.25	2.75	21.50	5.00	2.25	2.75	24.25	4.00	1.75	2.25	24.50	4.00	2.00	2.00
	31.00	6.00	3.00	3.00	25.75	6.00	4.25	1.75	25.25	6.00	3.25	2.75	26.25	5.00	2.75	2.25	26.00	5.00	2.75	2.25
	34.75	7.00	4.00	3.00	.....	.....	.....	.....	29.75	7.00	4.00	3.00	31.00	6.00	3.25	2.75	29.75	6.00	3.25	2.75
	38.25	8.00	.....	.....	.....	.....	.....	.....	31.00	7.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	16.25	1.00	0.00	1.00	8.50	1.00	0.25	0.75	7.25	1.00	0.25	0.75	21.75	1.00	0.25	0.75	18.75	1.00	0.00	1.00
	17.75	3.00	1.00	2.00	9.50	2.00	0.75	1.25	8.25	3.00	1.25	1.75	23.00	2.00	0.75	1.25	19.75	2.00	0.75	1.25
	18.25	4.00	1.75	2.25	10.50	4.00	2.00	2.00	9.25	5.00	2.25	2.75	23.50	3.00	1.00	2.00	20.75	4.00	1.75	2.25
	19.50	5.00	2.25	2.75	11.75	5.00	2.75	2.25	10.75	6.00	3.25	2.75	24.50	4.00	2.00	2.00	22.25	5.00	2.50	2.50
	21.75	6.00	3.00	3.00	12.50	6.00	.....	.....	12.00	6.75	.....	.....	25.75	5.00	2.50	2.50	25.75	6.00	3.25	2.75
	25.00	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	30.50	6.00	.....	.....	31.00	7.00	4.00	3.00
	26.50	7.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	32.00	7.75	.....	.....
	21.50	1.00	0.00	1.00	.....	.....	.....	.....	4.50	1.00	0.25	0.75	3.00	1.00	0.00	1.00	12.75	1.00	0.25	0.75
	23.00	2.00	0.50	1.50	.....	.....	.....	.....	5.25	3.00	1.00	2.00	4.00	4.00	2.00	2.00	13.25	2.00	0.75	1.25
	24.75	4.00	1.75	2.25	.....	.....	.....	.....	6.00	5.00	2.75	2.25	5.25	6.00	3.25	2.75	15.25	4.00	2.00	2.00
	26.50	5.00	2.25	2.75	.....	.....	.....	.....	7.50	6.50	.....	.....	6.25	7.00	.....	.....	16.50	5.00	2.75	2.25
	29.75	6.00	3.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18.50	6.00	3.25	2.75
	33.00	6.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21.25	7.00	4.00	3.00
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	23.50	8.00	.....	.....

COTSWOLD.

Catalogue No. of samples..	177.				178.				178.				178.				178.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	13.50	1.00	0.25	0.75	21.75	1.00	0.00	1.00	24.25	1.00	0.00	1.00	26.50	1.00	0.25	0.75	24.75	1.00	0.00	1.00
	15.50	2.00	0.75	1.25	24.75	2.00	0.25	1.75	26.50	2.00	0.50	1.50	27.75	2.00	0.50	1.50	26.25	2.00	0.50	1.50
	16.50	3.00	1.00	2.00	25.75	3.00	1.00	2.00	27.50	3.00	1.00	2.00	29.00	3.00	1.00	2.00	26.75	3.00	1.00	2.00
	17.25	4.00	1.75	2.25	27.50	4.00	1.25	2.75	28.75	4.00	1.50	2.50	29.75	4.00	1.50	2.50	27.75	4.00	1.50	2.50
	18.25	5.00	2.50	2.50	30.25	4.75	.....	.....	31.25	5.00	2.25	2.75	31.75	5.00	2.25	2.75	29.50	5.00	2.25	2.75
	20.50	6.00	3.25	2.75	.....	.....	.....	.....	34.75	5.50	.....	.....	35.25	6.00	3.00	3.00	33.50	6.00	3.00	3.00
	23.50	6.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	41.50	7.00	3.75	3.25	39.25	7.00	3.75	3.25
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	42.50	7.25	.....	.....	.....	.....	.....	.....
	17.25	1.00	0.25	0.75	19.50	1.00	0.00	1.00	23.75	1.00	0.00	1.00	13.50	1.00	0.25	0.75	24.75	1.00	0.00	1.00
	18.75	2.00	0.75	1.25	22.50	2.00	0.50	1.50	25.50	2.00	0.50	1.50	15.50	2.00	0.75	1.25	26.25	2.00	0.50	1.50
	19.50	3.00	1.25	1.75	23.50	3.00	1.00	2.00	26.50	3.00	1.00	2.00	16.25	3.00	1.00	2.00	27.25	3.00	1.00	2.00
	20.50	4.00	1.75	2.25	24.50	4.00	1.50	2.50	27.75	4.00	1.75	2.25	16.75	4.00	1.75	2.25	28.00	4.00	1.75	2.25
	22.25	5.00	2.50	2.50	27.00	5.00	2.25	2.75	29.50	4.50	.....	.....	17.75	5.00	2.25	2.75	30.50	5.00	2.25	2.75
	25.75	6.00	3.25	2.75	30.75	6.00	3.00	3.00	.....	.....	.....	.....	19.75	6.00	3.00	3.00	34.75	6.00	3.00	3.00
	28.50	7.00	.....	.....	31.75	6.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	39.75	7.00	3.75	[illegible]
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	42.75	7.75	.....	.....
	5.75	1.00	0.00	1.00	22.50	1.00	0.00	1.00	20.25	1.00	0.00	1.00	23.75	1.00	0.00	1.00	22.25	1.00	0.25	0.75
	6.50	2.00	0.75	1.25	25.75	2.00	0.50	1.50	21.50	2.00	0.50	1.50	24.75	2.00	0.50	1.50	24.75	2.00	0.75	1.25
	7.00	3.00	1.00	2.00	26.75	3.00	1.00	2.00	22.00	3.00	1.00	2.00	25.75	3.00	1.00	2.00	25.75	3.00	1.00	2.00
	7.75	5.00	2.25	2.75	27.50	4.00	1.75	2.25	23.25	4.00	1.75	2.25	26.75	4.00	1.50	2.50	26.75	4.00	1.50	2.50
	9.00	6.00	.....	.....	30.50	5.00	2.25	2.75	25.00	5.00	2.25	2.75	28.50	5.00	2.25	2.75	29.00	5.00	2.25	2.75
	.....	.....	.....	.....	34.25	6.00	3.00	3.00	28.50	6.00	3.00	3.00	32.75	6.00	3.00	3.00	.....	.....	.....	.....
	.....	.....	.....	.....	36.75	6.50	.....	.....	30.50	6.50	.....	.....	38.25	7.00	3.75	3.25	.....	.....	.....	.....
	.....	.....	.....	.....	24.50	1.00	0.00	1.00	26.75	1.00	0.00	1.00	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	25.75	2.00	0.50	1.50	31.25	2.00	0.50	1.50	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	27.50	3.00	1.00	2.00	31.50	3.00	1.00	2.00	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	29.50	4.00	1.75	2.25	32.50	4.00	1.50	2.50	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	32.75	5.00	2.25	2.75	34.25	5.00	2.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	37.00	6.00	3.00	3.00	38.50	6.00	3.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	39.75	6.50	.....	.....	42.25	6.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

COTSWOLD.

Catalogue No. of samples..	178.				179.				179.				179.				179.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	16.50	1.00	0.25	0.75	13.75	1.00	0.25	0.75	11.75	1.00	0.25	0.75	12.00	1.00	0.25	0.75	22.50	1.00	0.25	0.75
	17.50	2.00	0.75	1.25	15.75	2.00	0.75	1.25	12.75	2.00	0.75	1.25	14.75	2.00	0.75	1.25	24.75	2.00	0.75	1.25
	18.00	3.00	1.00	2.00	17.00	3.00	1.25	1.75	13.50	3.00	1.25	1.75	13.75	3.00	1.25	1.75	26.50	3.00	1.25	1.75
	18.75	4.00	1.75	2.25	18.00	4.00	1.75	2.25	14.25	4.00	1.75	2.25	14.50	4.00	1.50	2.50	28.75	4.00	1.75	2.25
	20.25	5.00	2.25	2.75	19.00	5.00	2.50	2.50	15.00	4.75	.....	.....	14.75	5.00	2.50	2.50	30.75	5.00	2.50	2.50
	22.50	6.00	.....	.....	21.75	6.00	3.25	2.75	.....	.....	.....	.....	15.75	6.00	3.25	2.75	34.50	6.00	3.25	2.75
	.....	.....	.....	.....	24.75	6.75	.....	.....	.....	.....	.....	.....	16.50	6.25	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	15.50	1.00	0.25	0.75	20.50	1.00	0.25	0.75	14.75	1.00	0.25	0.75	19.50	1.00	0.00	1.00
	.....	.....	.....	.....	18.75	2.00	0.75	1.25	23.00	2.00	0.75	1.25	16.25	2.00	0.75	1.25	21.50	2.00	0.75	1.25
	.....	.....	.....	.....	19.75	3.00	1.25	1.75	25.25	3.00	1.25	1.75	17.00	3.00	1.25	1.75	22.75	3.00	1.00	2.00
Actual measurements in grams and millimeters.	.....	.....	.....	.....	21.25	4.00	1.75	2.25	26.75	4.00	1.75	2.25	18.25	4.00	1.75	2.25	23.00	4.00	1.75	2.25
	.....	.....	.....	.....	22.00	5.00	2.50	2.50	28.50	5.00	2.50	2.50	19.50	5.00	2.50	2.50	25.50	5.00	2.50	2.50
	.....	.....	.....	.....	25.25	6.00	.....	.....	.....	.....	.....	.....	21.50	6.00	3.25	2.75	28.75	6.00	3.25	2.75
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	25.25	7.00	4.00	3.00	33.25	7.00	4.00	3.00
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27.25	7.50	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	24.75	1.00	0.00	1.00	9.00	1.00	0.25	0.75	23.50	1.00	0.00	1.00	22.75	1.00	0.00	1.00
	.....	.....	.....	.....	26.25	2.00	0.50	1.50	11.75	2.00	1.00	1.00	20.25	2.00	0.50	1.50	24.75	2.00	0.50	1.50
	.....	.....	.....	.....	27.75	3.00	1.00	2.00	12.75	3.00	1.25	1.75	27.25	3.00	1.00	2.00	26.50	4.00	1.75	2.25
	.....	.....	.....	.....	29.50	4.00	1.75	2.25	13.50	4.00	2.00	2.00	28.75	4.00	1.75	2.25	28.50	5.00	2.50	2.50
	.....	.....	.....	.....	31.75	5.00	2.50	2.50	14.50	4.75	.....	.....	30.75	5.00	2.50	2.50	32.50	6.00	3.25	2.75
	.....	.....	.....	.....	36.50	6.00	3.25	2.75	.....	.....	.....	.....	35.50	6.00	3.25	2.75	37.75	7.00	.....	.....
	.....	.....	.....	.....	42.75	6.75	.....	.....	.....	.....	.....	.....	40.75	7.00	.....	.....	.....	.....	.....	.....

COTSWOLD.

Catalogue No. of samples..	179.				179.				179.				179.				180.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	11.50	1.00	0.00	1.00	25.25	1.00	0.25	0.75	24.25	1.00	0.00	1.00	18.75	1.00	0.00	1.00	27.50	1.00	0.25	0.75
	13.00	2.00	0.75	1.25	26.75	2.00	0.75	1.25	25.50	2.00	0.50	1.50	20.50	2.00	0.50	1.50	29.50	2.00	0.75	1.25
	14.25	3.00	1.25	1.75	27.75	3.00	1.25	1.75	25.75	3.00	1.00	2.00	21.00	3.00	1.00	2.00	30.50	3.00	1.00	2.00
	15.00	4.00	1.75	2.25	28.75	4.00	1.75	2.25	26.50	4.00	1.75	2.25	21.75	4.00	1.50	2.50	31.25	4.00	1.75	2.25
	15.75	5.00	2.50	2.50	30.50	5.00	2.25	2.75	28.50	5.00	2.25	2.75	23.75	5.00	2.25	2.75	33.25	5.00	2.25	2.75
	17.50	6.00	3.25	2.75	33.50	6.00	3.00	3.00	.....	.....	.....	.....	27.00	6.00	3.00	3.00	38.00	6.00	3.00	3.00
	19.50	6.75	.....	.....	36.50	6.50	.....	.....	.....	.....	.....	.....	31.25	7.00	3.75	3.25	42.75	6.75	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	32.50	7.50	.....	.....	.....	.....	.....	.....
	21.00	1.00	0.00	1.00	19.25	1.00	0.25	0.75	25.50	1.00	0.25	0.75	13.25	1.00	0.25	0.75	16.50	1.00	0.25	0.75
	21.75	2.00	0.50	1.50	20.50	2.00	0.50	1.50	26.75	2.00	0.75	1.25	16.25	2.00	0.75	1.25	17.25	2.00	0.75	1.25
	22.50	3.00	1.00	2.00	20.50	3.00	1.00	2.00	27.50	3.00	1.00	2.00	17.50	3.00	1.25	1.75	17.50	3.00	1.00	2.00
Actual measurements in grams and millimeters.	22.50	4.00	1.75	2.25	21.25	4.00	1.50	2.50	28.25	4.00	1.75	2.25	18.75	4.00	1.75	2.25	17.75	4.00	1.75	2.25
	24.50	5.00	2.25	2.75	22.50	5.00	2.00	3.00	29.00	5.00	2.25	2.75	.....	.....	.....	.....	19.25	5.00	2.25	2.75
	28.00	6.00	3.00	3.00	23.25	6.00	3.00	3.00	31.75	6.00	3.00	3.00	.....	.....	.....	.....	21.75	6.00	3.00	3.00
	32.75	7.00	3.75	3.25	26.75	6.75	.....	.....	36.25	7.00	3.75	3.25	.....	.....	.....	.....	25.50	7.00	3.75	3.25
	36.50	8.00	4.75	3.25	.....	.....	.....	.....	41.50	8.00	4.25	3.75	.....	.....	.....	.....	28.00	7.75	.....	.....
	36.75	8.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	23.00	1.00	0.25	0.75	13.25	1.00	0.00	1.00	17.00	1.00	0.00	1.00	15.00	1.00	0.00	1.00	29.50	1.00	0.25	0.75
	25.50	2.00	0.75	1.25	13.75	2.00	0.50	1.50	17.50	2.00	0.50	1.50	15.75	2.00	0.50	1.50	31.75	2.00	0.75	1.25
	28.00	3.00	1.25	1.75	14.25	3.00	1.00	2.00	17.75	3.00	1.00	2.00	16.00	3.00	1.00	2.00	32.75	3.00	1.00	2.00
	29.25	4.00	1.75	2.25	14.50	4.00	1.75	2.25	18.50	4.00	1.75	2.25	16.75	4.00	1.75	2.25	33.75	4.00	1.50	2.50
	30.50	5.00	2.25	2.75	15.25	5.00	2.25	2.75	20.25	5.00	2.25	2.75	18.25	5.00	2.25	2.75	36.50	5.00	2.25	2.75
	33.50	6.00	3.00	3.00	16.75	6.00	3.00	3.00	22.50	6.00	3.00	3.00	20.50	6.00	3.00	3.00	39.75	6.00	3.00	3.00
	38.50	7.00	3.75	3.25	18.50	7.00	3.75	3.25	27.33	7.00	.....	.....	23.75	7.00	.....	.....	45.50	6.75	.....	.....
	40.75	7.25	.....	.....	21.75	8.00	4.50	3.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

COTSWOLD.

Catalogue No. of samples..	180.				181.				181.				181.				181.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	22.50	1.00	0.25	0.75	19.25	1.00	0.25	0.75	26.50	1.00	0.00	1.00	19.00	1.00	0.25	0.75	30.50	1.00	0.25	0.75
	23.50	2.00	0.50	1.50	19.50	2.00	0.75	1.25	26.75	2.00	0.50	1.50	20.50	2.00	0.50	1.50	32.75	2.00	0.75	1.25
	23.75	3.00	1.00	2.00	20.00	3.00	1.00	2.00	27.25	3.00	1.00	2.00	20.75	3.00	1.00	2.00	33.75	3.00	1.00	2.00
	24.75	4.00	1.75	2.25	20.50	4.00	1.50	2.50	27.75	4.00	1.50	2.50	21.50	4.00	1.75	2.25	35.25	4.00	1.75	2.25
	26.50	5.00	2.25	2.75	21.75	5.00	2.25	2.75	29.75	5.00	2.00	3.00	22.50	5.00	2.25	2.75	36.75	5.00	2.25	2.75
	30.00	6.00	3.00	3.00	23.75	6.00	3.00	3.00	32.75	6.00	2.75	3.25	25.25	6.00	3.00	3.00	42.25	6.00	3.00	3.00
	35.25	7.00	3.75	3.25	28.00	7.00	3.50	3.50	38.50	7.00	3.25	3.75	28.75	7.00	3.75	3.25	42.50	6.00	.....	.....
	37.50	7.50	.....	.....	31.00	7.75	.....	.....	43.75	8.00	4.00	4.00	32.75	8.00	4.25	3.75	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	45.50	8.25	.....	.....	34.75	8.25	.....	.....	.....	.....	.....	.....
	23.50	1.00	0.00	1.00	14.50	1.00	0.25	0.75	18.75	1.00	0.25	0.75	23.75	1.00	0.25	0.75	22.50	1.00	0.25	0.75
	24.75	2.00	0.50	1.50	16.50	2.00	0.75	1.25	20.50	2.00	0.75	1.25	26.00	2.00	0.50	1.50	24.00	2.00	0.75	1.25
	25.50	3.00	1.00	2.00	16.75	3.00	2.25	.....	20.75	3.00	1.00	2.00	27.25	3.00	1.00	2.00	24.75	3.00	1.00	2.00
	25.75	4.00	1.50	2.50	.....	.....	.....	.....	21.50	4.00	1.50	2.50	28.75	4.00	1.50	2.50	25.50	4.00	1.50	2.50
	27.50	5.00	2.25	2.75	.....	.....	.....	.....	22.75	5.00	2.25	2.75	30.75	5.00	2.25	2.75	26.25	5.00	2.25	2.75
	30.75	6.00	3.00	3.00	.....	.....	.....	.....	25.50	6.00	2.75	3.25	35.50	6.00	3.00	3.00	30.00	6.00	3.00	3.00
	36.25	7.00	3.75	3.25	.....	.....	.....	.....	28.75	7.00	3.25	3.75	41.00	7.00	.....	.....	35.25	7.00	3.75	3.25
	40.75	8.00	4.25	3.75	.....	.....	.....	.....	32.75	8.00	4.00	4.00	.....	.....	.....	.....	35.75	7.25	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	33.75	8.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	23.50	1.00	0.25	0.75	18.50	1.00	0.25	0.75	20.25	1.00	0.25	0.75	25.00	1.00	0.25	0.75	21.75	1.00	0.25	0.75
	24.50	2.00	0.75	1.25	19.25	2.00	0.50	1.50	21.00	2.00	0.75	1.25	26.25	2.00	0.50	1.50	23.75	2.00	0.75	1.25
	25.50	3.00	1.00	2.00	19.50	3.00	1.00	2.00	21.75	3.00	1.00	2.00	26.75	3.00	1.00	2.00	24.50	3.00	1.00	2.00
	26.25	4.00	1.50	2.50	19.75	4.00	1.50	2.50	22.50	4.00	1.50	2.50	28.00	4.00	1.50	2.50	25.75	4.00	1.50	2.50
	27.50	5.00	2.00	3.00	21.25	5.00	2.00	3.00	23.25	5.00	2.00	3.00	30.00	5.00	2.25	2.75	26.75	5.00	2.00	3.00
	31.00	6.00	3.00	3.00	23.50	6.00	2.75	3.25	26.00	6.00	2.75	3.25	34.75	6.00	3.20	3.00	31.75	6.00	3.00	3.00
	36.50	7.00	3.50	3.50	27.50	7.00	3.25	3.75	30.50	7.00	3.25	3.75	41.25	7.00	3.75	3.25	36.00	6.75	.....	.....
	40.25	8.00	.....	.....	30.75	7.75	.....	.....	34.75	8.00	4.00	4.00	46.00	8.00	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	38.75	9.00	5.00	4.00	.....	.....	.....	.....	.....	.....	.....	.....

COTSWOLD.

Catalogue No. of samples..	181.				182.				182.				182.				182.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	20.75	1.00	0.25	0.75	23.50	1.00	0.25	0.75	21.75	1.00	0.25	0.75	13.00	1.00	0.25	0.75	18.50	1.00	0.00	1.00
	21.50	2.00	0.75	1.25	24.75	2.00	0.75	1.25	22.25	2.00	0.50	1.50	13.75	2.00	0.75	1.25	19.00	2.00	0.50	1.50
	22.25	3.00	1.00	2.00	25.50	3.00	1.00	2.00	22.50	3.00	1.00	2.00	14.50	3.00	1.00	2.00	19.50	3.00	1.00	2.00
	23.50	4.00	1.75	2.25	26.25	4.00	1.75	2.25	23.75	4.00	1.50	2.50	14.75	4.00	1.75	2.25	20.00	4.00	1.50	2.50
	24.75	5.00	2.25	2.75	28.50	5.00	2.25	2.75	25.00	5.00	2.00	3.00	15.25	5.00	2.25	2.75	21.25	5.00	2.00	3.00
	26.75	6.00	3.00	3.00	32.50	6.00	3.00	3.00	27.75	6.00	2.75	3.25	16.50	6.00	3.00	3.00	23.50	6.00	2.75	3.25
	30.75	6.75	.....	.....	37.50	7.00	3.75	3.25	32.50	7.00	3.25	3.75	18.75	7.00	3.75	3.25	26.75	7.00	3.25	3.75
	.....	.....	.....	.....	.....	.....	.....	.....	37.00	8.00	4.00	4.00	21.50	8.00	4.00	4.00	30.00	8.00	4.00	4.00
	.....	.....	.....	.....	.....	.....	.....	.....	40.00	8.75	.....	.....	23.75	8.50	.....	.....	.....	.....	.....	.....
	24.75	1.00	0.25	0.75	25.50	1.00	0.25	0.75	24.00	1.00	0.25	0.75	29.00	1.00	0.25	0.75	20.50	1.00	0.25	0.75
	25.50	2.00	0.50	1.50	26.50	2.00	0.50	1.50	26.75	2.00	0.75	1.25	30.75	2.00	0.50	1.50	21.25	2.00	0.50	1.50
	25.75	3.00	1.00	2.00	26.50	3.00	1.00	2.00	27.00	3.00	1.00	2.00	30.75	3.00	1.00	2.00	21.50	3.00	1.00	2.00
	26.75	4.00	1.75	2.25	27.00	4.00	1.50	2.50	.....	.....	.....	.....	32.25	4.00	1.25	2.75	22.25	4.00	1.50	2.50
	28.50	5.00	2.25	2.75	28.50	5.00	2.00	3.00	.....	.....	.....	.....	34.25	5.00	2.00	3.00	23.00	5.00	2.00	3.00
	32.75	6.00	3.00	3.00	31.50	6.00	2.75	3.25	.....	.....	.....	.....	39.50	6.00	2.75	3.25	29.50	7.00	3.25	3.75
	38.25	7.00	3.75	3.25	32.25	7.00	3.25	3.75	.....	.....	.....	.....	.....	.....	.....	.....	33.75	8.00	4.25	3.75
	43.75	8.00	.....	.....	40.75	8.00	4.00	4.00	.....	.....	.....	.....	.....	.....	.....	.....	37.25	9.00	.....	.....
	20.50	1.00	0.25	0.75	17.00	1.00	0.25	0.75	15.25	1.00	0.00	1.00	25.50	1.00	0.25	0.75	33.00	1.00	1.25	0.75
	21.75	2.00	0.75	1.25	18.25	2.00	0.50	1.50	16.50	2.00	0.50	1.50	26.50	2.00	0.50	1.50	34.75	2.00	0.50	1.50
	22.50	3.00	1.00	2.00	18.50	3.00	1.00	2.00	16.50	3.00	1.00	2.00	26.75	3.00	1.00	2.00	35.50	3.00	1.00	2.00
	24.25	5.00	2.00	3.00	19.25	4.00	1.50	2.50	16.75	4.00	1.50	2.50	28.25	4.00	1.50	2.50	36.50	4.00	1.50	2.50
	27.25	6.00	3.00	3.00	20.00	5.00	2.00	3.00	17.50	5.00	2.00	3.00	29.50	5.00	2.00	3.00	38.50	5.00	2.00	3.00
	32.75	7.00	3.75	3.25	22.50	6.00	2.75	3.25	19.00	6.00	.....	.....	33.50	6.00	2.75	3.25	48.50	6.00	2.75	3.25
	.....	.....	.....	.....	25.75	7.00	.....	.....	.....	.....	.....	.....	37.50	6.75	.....	.....	50.00	7.00	3.25	3.75
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	50.50	7.25	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

COTSWOLD.

Actual measurements in grams and millimeters.

Catalogue No. of samples..	182.				187.				187.				187.				187.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	17.00	[illegible]	[illegible]	1.00	15.00	1.00	0.00	1.00	11.75	1.00	0.00	1.00	18.50	1.00	0.25	0.75	19.50	1.00	0.00	1.00
	17.50	2.00	[illegible]	1.00	15.75	2.00	0.75	1.25	12.25	2.00	0.75	1.25	19.50	2.00	0.75	1.25	21.25	2.00	0.75	1.25
	18.25	3.00	[illegible]	2.00	17.00	[illegible]	1.25	1.75	12.75	[illegible]	1.00	2.00	20.25	3.00	[illegible]	2.00	21.50	3.00	[illegible]	2.00
	18.75	4.00	1.50	2.50	18.00	4.00	2.00	[illegible]	13.00	4.00	1.75	2.25	21.50	4.00	1.75	2.25	22.00	4.00	1.75	2.25
	19.50	5.00	2.00	3.00	19.00	5.00	2.50	2.50	13.75	5.00	2.25	2.75	22.50	5.00	2.25	2.75	22.75	[illegible]	2.25	2.75
	21.75	6.00	2.75	3.25	22.00	6.00	3.25	2.75	15.25	6.00	3.00	3.00	24.50	[illegible]	3.00	3.00	25.00	[illegible]	3.00	[illegible]
	25.25	6.75	.....	.....	24.75	6.75	.....	.....	18.25	7.00	3.75	3.25	29.00	7.00	3.75	3.25	29.75	6.75	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30.50	7.50	.....	.....	.....	.....	.....	.....
	23.25	1.00	0.00	1.00	17.25	1.00	0.25	0.75	11.75	1.00	0.25	0.75	15.50	1.00	0.00	1.00	8.50	1.00	0.25	0.75
	24.75	2.00	0.50	1.50	18.00	2.00	0.75	1.25	12.75	2.00	0.75	1.25	[illegible]	[illegible]	0.75	1.25	10.75	2.00	0.75	1.25
Actual measurements in grams and millimeters.	25.75	3.00	1.00	2.00	20.25	3.00	1.25	1.75	13.00	3.00	1.00	2.00	16.25	3.00	[illegible]	[illegible]	11.50	3.00	1.25	1.75
	26.75	4.00	1.50	2.50	21.50	4.00	2.00	[illegible]	13.50	4.00	1.75	2.25	16.50	[illegible]	1.75	2.25	12.50	[illegible]	.....	.....
	[illegible]	5.00	2.00	3.00	[illegible]	5.00	2.50	2.50	14.00	5.00	2.25	2.75	17.75	5.00	[illegible]	2.75	.....	.....	.....	.....
	[illegible]	[illegible]	2.75	3.25	[illegible]	[illegible]	[illegible]	2.75	[illegible]	6.00	[illegible]	3.00	20.50	[illegible]	[illegible]	[illegible]	.....	.....	.....	.....
	35.50	7.00	.....	.....	[illegible]	6.25	.....	.....	17.75	6.75	.....	.....	24.00	7.00	.....	.....	.....	.....	.....	.....
	23.50	1.00	[illegible]	0.75	12.50	[illegible]	[illegible]	0.75	14.50	1.00	[illegible]	1.00	18.75	[illegible]	0.00	[illegible]	14.50	1.00	0.25	0.75
	24.75	2.00	[illegible]	1.50	13.70	2.00	0.75	1.25	15.00	[illegible]	0.75	1.25	19.75	2.00	0.75	[illegible]	14.75	2.00	0.75	1.25
	25.75	[illegible]	1.00	2.00	14.50	[illegible]	[illegible]	[illegible]	16.25	3.00	1.00	2.00	[illegible]	[illegible]	1.00	2.00	15.50	[illegible]	[illegible]	1.75
	[illegible]	[illegible]	[illegible]	2.50	14.75	4.00	1.75	2.25	16.50	4.00	1.75	2.25	[illegible]	4.00	1.75	2.25	15.75	4.00	1.75	2.25
	[illegible]	[illegible]	[illegible]	[illegible]	15.50	[illegible]	[illegible]	2.75	18.00	.....	.....	.....	.....	.....	.....	.....	16.50	5.00	2.50	2.50
	[illegible]	6.00	2.75	3.25	16.50	6.00	[illegible]	3.00	.....	5.00	2.25	2.75	22.50	5.00	2.25	2.75	17.50	6.00	3.00	3.00
	[illegible]	7.00	3.25	3.75	19.00	7.00	3.75	3.25	19.50	6.00	.....	.....	24.50	[illegible]	3.00	3.00	.....	.....	.....	.....
	36.50	7.25	.....	.....	21.50	[illegible]	4.25	3.75	.....	.....	.....	.....	28.50	7.00	.....	.....	.....	.....	.....	.....

COTSWOLD.

Actual measurements in grams and millimeters.

Catalogue No. of samples...	187.				188.				[illegible]				188.				188.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	11.75	[illegible]	0.00	1.00	16.50	[illegible]	0.25	0.75	13.25	1.00	0.25	0.75	18.75	1.00	0.00	1.00	16.75	[illegible]	0.25	0.75
	[illegible]	[illegible]	0.75	[illegible]	17.50	2.00	0.75	1.25	15.50	2.00	0.75	1.25	20.00	[illegible]	0.75	1.25	17.25	2.00	0.75	1.25
	12.75	[illegible]	1.25	[illegible]	17.75	3.00	1.25	1.75	16.50	2.75	.....	.....	20.75	[illegible]	1.00	2.00	17.25	2.25	.....	.....
	.....	.....	.....	.....	18.50	4.00	2.00	2.00	.....	.....	.....	.....	21.25	[illegible]	1.75	2.25	.....	.....	.....	.....
	.....	.....	.....	.....	19.50	5.00	[illegible]	2.50	.....	.....	.....	.....	22.25	[illegible]	2.25	2.75	.....	.....	.....	.....
	.....	.....	.....	.....	21.25	6.00	3.00	3.00	.....	.....	.....	.....	24.50	6.00	3.00	3.00	.....	.....	.....	.....
	.....	.....	.....	.....	24.75	7.00	4.00	3.00	.....	.....	.....	.....	27.50	7.00	3.75	3.25	.....	.....	.....	.....
	.....	.....	.....	.....	25.25	7.25	.....	.....	.....	.....	.....	.....	37.75	7.75	.....	.....	.....	.....	.....	.....
	16.25	1.00	0.00	[illegible]	15.25	[illegible]	0.25	0.75	17.25	1.00	0.00	[illegible]	15.00	[illegible]	0.00	[illegible]	18.75	[illegible]	0.00	1.00
	17.25	2.00	0.75	[illegible]	15.50	[illegible]	1.00	[illegible]	[illegible]	2.00	0.75	1.25	20.25	2.00	0.25	1.75	19.50	2.00	0.75	1.25
	[illegible]	[illegible]	1.00	[illegible]	15.75	[illegible]	1.25	1.75	[illegible]	3.00	1.25	1.75	21.50	[illegible]	[illegible]	2.00	19.75	3.00	1.00	[illegible]
	[illegible]	[illegible]	1.75	[illegible]	16.25	[illegible]	2.00	2.00	[illegible]	4.00	1.75	2.25	23.25	4.00	1.75	2.25	20.50	[illegible]	2.00	2.00
	[illegible]	[illegible]	2.25	[illegible]	17.00	[illegible]	2.75	2.25	20.75	[illegible]	2.50	2.50	27.00	5.00	2.25	2.75	21.75	5.00	2.50	[illegible]
	22.50	6.00	3.00	[illegible]	18.50	6.00	3.25	2.75	23.25	6.00	.....	.....	.....	.....	.....	.....	24.50	6.00	[illegible]	[illegible]
	26.50	7.00	3.75	3.25	20.75	6.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27.25	7.00	4.00	[illegible]
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	31.25	7.75	.....	.....
	17.50	[illegible]	0.25	0.75	15.75	1.00	0.00	1.00	16.00	[illegible]	0.00	[illegible]	17.50	1.00	0.00	1.00	13.75	1.00	0.00	[illegible]
	18.50	2.00	0.75	[illegible]	17.25	2.00	0.75	1.25	18.50	2.00	[illegible]	1.00	18.50	2.00	0.75	[illegible]	14.50	2.00	0.75	[illegible]
	19.25	[illegible]	1.25	[illegible]	17.75	3.00	1.25	1.75	20.50	2.50	.....	.....	18.75	3.00	1.25	1.75	15.00	3.00	1.25	1.75
	20.50	4.00	2.00	2.00	18.25	4.00	2.00	2.00	.....	.....	.....	.....	19.75	[illegible]	2.00	2.00	15.50	4.00	2.00	2.00
	22.00	5.00	[illegible]	2.50	18.75	5.00	2.50	2.50	.....	.....	.....	.....	20.50	[illegible]	.....	.....	16.00	[illegible]	[illegible]	2.50
	23.50	[illegible]	3.00	[illegible]	20.50	5.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17.75	6.00	3.00	3.00

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

COTSWOLD.

Catalogue No. of samples ..	188.				189.				189.				189.				189.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	15.25	1.00	0.25	0.75	17.50	1.00	0.25	0.75	17.50	1.00	0.25	0.75	20.50	1.00	0.25	0.75	10.25	1.00	0.25	0.75
	16.25	2.00	0.75	1.25	20.00	2.00	0.75	1.25	20.00	2.00	0.75	1.25	21.75	2.00	0.75	1.25	12.50	2.00	0.75	1.25
	16.75	3.00	1.25	1.75	21.25	3.00	1.00	2.00	20.50	3.00	1.00	2.00	22.50	3.00	1.00	2.00	13.50	3.00	1.25	1.75
	17.25	4.00	1.75	2.25	22.50	4.00	1.75	2.25	21.50	4.00	1.75	2.25	23.50	4.00	1.75	2.25	14.50	4.00	1.75	2.25
	18.50	5.00	2.75	2.25	23.75	5.00	2.25	2.75	22.50	5.00	2.25	2.75	25.25	5.00	2.25	2.75	14.50	5.00	2.50	2.50
	19.50	6.00	3.00	3.00	26.50	6.00	3.00	3.00	25.00	6.00	3.00	3.00	28.25	6.00	3.00	3.00	15.75	6.00	3.25	2.75
	.....	.....	.....	.....	30.50	7.00	3.75	3.25	29.25	7.00	3.75	3.25	33.50	7.00	3.75	3.25	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	31.50	7.50	.....	.....	37.50	7.75	.....	.....	.....	.....	.....	.....
	10.25	1.00	0.00	1.00	14.50	1.00	0.25	0.75	16.50	1.00	0.25	0.75	15.25	1.00	0.25	0.75	22.00	1.00	0.25	0.75
	11.00	2.00	0.75	1.25	17.50	2.00	0.75	1.25	18.75	2.00	1.00	1.00	16.50	2.00	0.75	1.25	26.00	2.00	0.75	1.25
	11.50	3.00	1.00	2.00	18.25	3.00	1.25	1.75	20.75	3.00	1.25	1.75	17.25	3.00	1.00	2.00	27.50	3.00	1.25	1.75
	12.00	4.00	1.75	2.25	18.75	4.00	1.75	2.25	22.50	4.00	1.75	2.25	18.00	4.00	1.75	2.25	28.75	4.00	1.75	2.25
	12.50	5.00	2.50	2.50	19.75	5.00	2.25	2.75	23.50	5.00	2.25	2.75	19.50	5.00	2.25	2.75	30.00	5.00	2.25	2.75
	13.50	6.00	3.00	3.00	21.50	6.00	3.00	3.00	25.75	6.00	3.00	3.00	22.75	5.75	.....	.....	34.50	6.00	3.25	2.75
	15.50	6.75	.....	.....	22.75	6.50	.....	.....	29.75	7.00	.....	.....	.....	.....	.....	.....	38.50	6.75	.....	.....
	9.50	1.00	0.00	1.00	18.75	1.00	0.25	0.75	11.75	1.00	0.25	0.75	20.75	1.00	0.25	0.75	21.75	1.00	0.25	0.75
	12.50	2.00	0.75	1.25	20.75	2.00	0.75	1.25	14.50	2.00	0.75	1.25	22.50	2.00	0.75	1.25	24.50	2.00	0.75	1.25
	14.00	3.00	1.00	2.00	22.00	3.00	1.25	1.75	16.00	3.00	1.00	2.00	24.50	3.00	1.25	1.75	25.75	3.00	1.25	1.75
	15.00	4.00	1.75	2.25	23.50	4.00	1.75	2.25	16.50	4.00	1.75	2.25	26.00	4.00	2.00	2.00	27.25	4.00	1.75	2.25
	16.00	4.75	.....	.....	24.75	5.00	2.25	2.75	17.75	5.00	2.25	2.75	27.50	5.00	2.50	2.50	29.25	5.00	2.50	2.50
	.....	.....	.....	.....	27.50	6.00	3.00	3.00	20.50	6.00	3.00	3.00	30.25	6.00	3.00	3.00	33.25	6.00	3.25	2.75
	.....	.....	.....	.....	31.75	7.00	4.00	3.00	21.75	6.25	.....	.....	35.50	7.00	4.00	3.00	36.75	6.75	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	37.25	7.25	.....	.....	.....	.....	.....	.....

COTSWOLD.

Catalogue No. of samples ..	189.				190.				190.				190.				190.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	19.50	1.00	0.25	0.75	23.75	1.00	0.00	1.00	12.00	1.00	0.25	0.75	21.50	1.00	0.00	1.00	20.50	1.00	0.25	1.00
	22.50	2.00	0.75	1.25	25.75	2.00	0.75	1.25	13.75	2.00	0.75	1.25	23.50	2.00	0.75	1.25	22.25	2.00	0.75	1.25
	24.50	3.00	1.25	1.75	27.50	3.00	1.25	1.75	14.75	3.00	1.25	1.75	25.00	3.00	1.25	1.75	23.50	3.00	1.25	1.75
	25.25	4.00	1.75	2.25	29.75	4.00	2.00	2.00	14.75	3.25	.....	.....	26.50	4.00	2.00	2.00	24.25	4.00	2.00	2.00
	26.75	5.00	2.50	2.50	32.75	5.00	2.50	2.50	.....	.....	.....	.....	28.75	5.00	2.50	2.50	25.75	5.00	2.50	2.50
	29.75	6.00	3.25	2.75	35.50	6.00	3.25	2.75	.....	.....	.....	.....	31.25	6.00	3.00	3.00	29.00	6.00	3.25	2.75
	32.75	6.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	36.25	7.00	4.00	3.00	34.50	7.00	.....	.....
	13.75	1.00	0.25	0.75	24.75	1.00	0.00	1.00	30.75	1.00	0.25	0.75	16.00	1.00	0.25	0.75	22.25	1.00	0.25	0.75
	17.25	2.00	0.75	1.25	26.75	2.00	0.75	1.25	34.75	2.00	0.75	1.25	17.50	2.00	0.75	1.25	24.25	2.00	0.75	1.25
	19.25	3.00	1.25	1.75	29.25	3.00	1.25	1.75	37.25	3.00	1.25	1.75	18.25	2.25	.....	.....	25.25	3.00	1.25	1.75
	20.50	4.00	2.00	2.00	31.50	4.00	2.00	2.00	38.75	4.00	2.00	2.00	.....	.....	.....	.....	26.00	4.00	2.00	2.00
	21.50	4.50	.....	.....	34.50	5.00	2.50	2.50	41.25	5.00	2.50	2.50	.....	.....	.....	.....	27.50	5.00	2.50	2.50
	.....	.....	.....	.....	37.25	6.00	3.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....	30.75	6.00	3.25	2.75
	.....	.....	.....	.....	38.50	6.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	34.75	7.00	4.00	3.00
	21.00	1.00	0.25	0.75	22.75	1.00	0.00	1.00	24.75	1.00	0.25	0.75	21.75	1.00	0.25	0.75	13.50	1.00	0.25	0.75
	21.50	2.00	0.75	1.25	26.75	2.00	0.75	1.25	28.75	2.00	0.75	1.25	24.25	2.00	0.75	1.25	14.50	2.00	0.75	1.25
	26.25	3.00	1.00	2.00	29.50	3.00	1.25	1.75	31.50	3.00	1.25	1.75	25.75	3.00	1.25	1.75	15.75	3.00	.....	.....
	27.50	4.00	1.75	2.25	31.75	4.00	2.00	2.00	33.75	4.00	2.00	2.00	27.25	4.00	1.75	2.25	.....	.....	.....	.....
	28.75	5.00	2.50	2.50	34.25	5.00	.....	.....	36.75	5.00	2.50	2.50	28.75	5.00	2.50	2.50	.....	.....	.....	.....
	33.00	6.00	3.25	2.75	.....	.....	.....	.....	39.75	6.00	3.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....
	36.75	6.75	.....	.....	.....	.....	.....	.....	45.50	6.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

	COTSWOLD.				LINCOLN.															
Catalogue No. of samples..	190.				164. SHOULDER.				164. SHOULDER.				164. SHOULDER.				164. SHOULDER.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	27.00	1.00	0.25	0.75	16.50	1.00	0.25	0.75	9.75	1.00	0.25	0.75	14.00	1.00	0.25	0.75	16.50	1.00	0.25	0.75
	31.00	2.00	0.75	1.25	18.00	2.00	1.00	1.00	10.25	2.00	0.75	1.25	16.75	2.00	1.00	1.00	18.50	2.00	1.00	1.00
	32.75	3.00	1.50	2.00	19.50	4.00	2.00	2.00	10.75	4.00	2.00	2.00	17.50	3.00	1.25	1.75	17.50	4.00	2.00	2.00
	33.75	4.00	1.75	2.25	20.25	5.00	2.75	2.25	11.50	5.00	2.75	2.25	17.75	4.00	2.00	2.00	18.50	5.00	2.75	2.25
	36.50	5.00	2.50	2.50	21.75	6.00	3.50	2.50	12.25	6.00	3.50	2.50	18.50	5.00	2.75	2.25	19.75	6.00	3.50	2.50
	41.00	6.00	3.00	3.00	.....	.....	.....	.....	14.25	7.00	4.00	3.00	20.50	6.00	3.50	2.50	21.50	6.75	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	15.75	8.00	.....	.....	22.50	7.00	4.00	3.00	.....	.....	.....	.....
	26.50	1.00	0.00	1.00	19.00	1.00	0.25	0.75	19.75	1.00	0.25	0.75	16.75	1.00	0.25	0.75	10.00	1.00	0.00	1.00
	28.75	2.00	0.75	1.25	20.25	2.00	1.00	1.00	21.75	2.00	1.00	1.00	18.25	2.00	1.00	1.00	10.75	3.00	1.25	1.75
	31.75	3.00	1.25	1.75	21.25	4.00	2.00	2.00	23.50	3.00	1.25	1.75	19.25	3.00	1.25	1.75	11.25	4.00	2.00	2.00
	34.50	4.00	2.00	2.00	22.50	5.00	3.00	2.00	23.50	4.00	2.00	2.00	20.00	4.00	2.00	2.00	11.75	5.25	.....	.....
	36.50	5.00	2.50	2.50	23.75	6.00	.....	.....	25.25	5.00	3.00	2.00	21.25	5.00	3.00	2.00	.....	.....	.....	.....
	38.75	6.00	3.25	2.75	.....	.....	.....	.....	26.75	6.00	3.25	2.75	23.00	6.00	3.50	2.50	.....	.....	.....	.....
	40.25	7.00	.....	.....	.....	.....	.....	.....	29.50	7.00	.....	.....	24.25	6.75	.....	.....	.....	.....	.....	.....
Actual measurements in grams and millimeters.	19.25	1.00	0.25	0.75	12.00	1.00	0.25	0.75	17.75	1.00	0.25	0.75	10.75	1.00	0.25	0.75	20.50	1.00	0.25	0.75
	20.75	2.00	0.75	1.25	13.75	2.00	1.00	1.00	19.25	2.00	1.00	1.00	20.75	2.00	1.00	1.00	21.50	2.00	0.75	1.25
	22.50	3.00	1.25	1.75	14.50	3.00	1.25	1.75	20.50	3.00	1.25	2.00	21.75	3.00	1.25	1.75	21.75	3.00	1.25	1.75
	23.25	4.00	2.00	2.00	15.25	4.00	2.00	2.00	21.25	5.00	2.75	2.25	22.50	4.00	2.00	2.00	22.50	4.00	2.00	2.00
	25.25	5.00	2.50	2.50	16.75	6.00	3.50	2.50	23.25	6.00	3.50	2.50	23.75	5.00	3.00	2.00	23.50	5.00	2.75	2.25
	28.00	6.00	3.25	2.75	19.25	7.00	.....	.....	26.25	7.00	4.00	3.00	25.50	6.00	3.50	2.50	25.75	6.00	3.50	2.50
	30.50	7.00	4.00	3.00	.....	.....	.....	.....	29.25	7.75	.....	.....	29.25	7.00	4.00	3.00	29.50	7.00	4.00	3.00
	33.75	7.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	31.50	7.75	.....	.....	33.75	8.00	.....	.....
	.....	.....	.....	.....	18.50	1.00	0.25	0.75	18.25	1.00	0.25	0.75	16.25	1.00	0.25	0.75	.....	.....	.....	.....
	.....	.....	.....	.....	19.25	2.00	0.75	1.25	19.75	2.00	0.75	1.25	17.00	3.00	1.25	1.75	.....	.....	.....	.....
	.....	.....	.....	.....	20.25	3.00	1.25	1.75	20.50	3.00	1.25	1.75	18.00	4.00	2.00	2.00	.....	.....	.....	.....
	.....	.....	.....	.....	21.75	5.00	2.75	2.25	21.50	4.00	2.00	2.00	20.50	6.00	3.25	2.75	.....	.....	.....	.....
	.....	.....	.....	.....	23.75	6.00	3.50	2.50	22.00	5.00	2.75	2.25	22.75	6.75	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	23.75	6.00	3.50	2.50	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	27.25	7.00	4.00	3.00	27.50	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	30.75	8.00	5.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	33.00	9.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

	LINCOLN.																			
Catalogue No. of samples..	164. SIDE.				164. SIDE.				164. SIDE.				164. SIDE.				164. HIP.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms*	*mm.*	*mm.*	*mm.*
	14.50	1.00	0.25	0.75	17.50	1.00	0.00	1.00	12.75	1.00	0.25	0.75	20.50	1.00	0.25	0.75	16.25	1.00	0.25	0.75
	15.50	2.00	1.00	1.00	19.25	2.00	0.75	1.25	13.75	2.00	1.00	1.00	21.75	2.00	0.75	1.25	18.75	2.00	0.75	1.25
	16.25	3.00	.....	.....	20.00	3.00	1.25	1.75	14.75	3.00	1.25	1.75	22.50	3.00	1.25	1.75	20.25	3.00	1.25	1.75
	.....	.....	.....	.....	20.75	4.00	2.00	2.00	15.00	4.00	2.00	2.00	24.00	5.00	2.75	2.25	21.75	4.50	.....	.....
	.....	.....	.....	.....	21.50	5.00	2.75	2.25	15.75	5.00	3.00	2.00	26.50	6.00	3.25	2.75	.....	.....	.....	.....
	.....	.....	.....	.....	22.00	5.75	.....	.....	17.25	6.00	3.75	2.25	31.00	7.00	4.00	3.00	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	18.75	7.00	4.25	2.75	34.00	8.00	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	18.75	7.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	16.50	1.00	0.00	1.00	13.50	1.00	0.00	1.00	20.75	1.00	0.25	0.75	18.75	1.00	0.25	0.75	18.25	1.00	0.00	1.00
	19.25	3.00	1.25	1.75	14.50	2.00	1.00	1.00	21.75	2.00	0.75	1.25	20.25	2.00	1.00	1.00	19.75	2.00	0.75	1.25
	20.50	4.00	2.00	2.00	15.50	4.00	2.00	2.00	22.75	3.00	1.25	1.75	21.00	3.00	1.25	1.75	20.75	3.00	1.25	1.75
	21.25	5.00	.....	.....	16.50	5.00	3.00	2.00	23.75	4.00	2.00	2.00	22.50	5.00	2.75	2.25	21.20	4.00	2.00	2.00
	.....	.....	.....	.....	17.50	6.00	3.50	2.50	24.75	5.00	2.75	2.25	24.50	6.00	3.25	2.75	23.00	5.00	2.75	2.25
	.....	.....	.....	.....	19.50	7.00	4.25	2.75	27.00	6.00	3.50	2.50	28.25	7.00	4.25	2.75	25.50	6.00	.....	.....
	.....	.....	.....	.....	21.75	8.00	.....	.....	31.50	7.00	4.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....
Actual measurements in grams and millimeters.	.....	.....	.....	.....	.....	.....	.....	.....	32.25	7.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	15.50	1.00	0.25	0.75	13.25	1.00	0.25	0.75	11.75	1.00	0.25	0.75	17.75	1.00	0.25	0.75	17.25	1.00	0.25	0.75
	16.25	2.00	1.00	1.00	14.50	2.00	1.00	1.00	13.50	2.00	1.00	1.00	20.25	2.00	1.00	1.00	18.00	2.00	0.75	1.25
	17.25	4.00	2.00	2.00	15.75	4.00	2.00	2.00	14.50	4.00	.....	.....	21.50	3.00	1.25	1.75	19.50	3.00	1.50	1.50
	18.25	5.00	3.00	2.00	16.75	5.00	3.00	2.00	.....	.....	.....	.....	22.50	4.00	2.00	2.00	20.75	4.00	2.00	2.00
	19.50	6.00	3.50	2.50	17.50	6.00	3.75	2.25	.....	.....	.....	.....	24.00	5.00	3.00	2.00	21.50	4.75	.....	.....
	22.50	7.00	4.25	2.75	19.50	7.00	4.25	2.75	.....	.....	.....	.....	25.50	6.00	3.50	2.50	.....	.....	.....	.....
	24.25	8.00	.....	.....	20.75	7.50	.....	.....	.....	.....	.....	.....	27.75	7.00	.....	.....	.....	.....	.....	.....
	14.00	1.00	0.25	0.75	11.25	1.00	0.00	1.00	16.75	1.00	0.25	0.75	.....	.....	.....	.....	19.75	1.00	0.25	0.75
	15.75	3.00	1.25	1.75	11.75	3.00	1.25	1.75	12.00	2.00	1.00	1.00	.....	.....	.....	.....	21.50	2.00	1.00	1.00
	16.50	4.00	2.00	2.00	12.50	4.00	2.00	2.00	12.75	4.00	2.00	2.00	.....	.....	.....	.....	22.25	3.00	1.25	1.75
	17.75	5.00	3.00	2.00	13.25	5.00	3.00	2.00	13.50	5.00	3.00	2.00	.....	.....	.....	.....	23.50	4.00	.....	.....
	18.75	6.00	3.50	2.50	14.25	6.00	3.50	2.50	14.50	6.00	3.50	2.50	.....	.....	.....	.....	.....	.....	.....	.....
	20.75	7.00	4.25	2.75	16.00	7.00	4.25	2.75	17.00	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	21.75	7.25	.....	.....	17.50	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

LINCOLN.

Catalogue No. of samples ..	164. HIP.				164. HIP.				164. HIP.				164. BELLY.				164. BELLY.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	17.75	1.00	0.25	0.75	9.50	1.00	0.00	1.00	19.75	1.00	0.25	0.75	17.50	1.00	0.25	0.75	13.50	1.00	0.25	0.75
	19.75	2.00	1.00	1.00	10.25	3.00	1.25	1.75	21.50	2.00	0.75	1.25	18.75	2.00	0.75	1.25	14.00	2.00	1.00	1.00
	20.75	3.00	1.25	1.75	11.25	5.00	2.75	2.25	22.25	3.00	1.25	1.75	19.75	3.00	1.25	1.75	15.50	4.00	2.00	2.00
	21.50	4.00	2.00	2.00	12.25	6.00	3.25	2.75	23.75	5.00	2.75	2.25	20.75	4.00	2.00	2.00	.....	.....	.....	.....
	22.25	5.00	2.75	2.25	14.25	7.00	.....	.....	26.25	6.00	.....	.....	22.00	5.00	3.00	2.00	.....	.....	.....	.....
	24.50	6.00	3.50	2.50	.....	.....	.....	.....	.....	.....	.....	.....	24.00	6.00	3.50	2.50	.....	.....	.....	.....
	28.00	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24.50	6.25	.....	.....	.....	.....	.....	.....
	8.50	1.00	0.25	0.75	15.00	1.00	0.25	0.75	15.25	1.00	0.00	1.00	9.00	1.00	0.25	0.75	10.25	1.00	0.00	1.00
	9.50	2.00	1.00	1.00	16.50	2.00	1.00	1.00	16.25	2.00	0.75	1.25	10.25	2.00	1.00	1.00	11.00	3.00	1.00	2.00
	10.75	4.00	.....	.....	17.75	3.00	1.50	1.50	17.50	4.00	2.00	2.00	11.25	4.00	2.00	2.00	11.50	4.00	2.00	2.00
	.....	.....	.....	.....	19.25	4.00	2.00	2.00	18.25	5.00	2.75	2.25	12.50	6.00	3.50	2.50	12.25	5.00	3.00	2.00
	.....	.....	.....	.....	21.00	6.00	3.50	2.50	20.00	6.00	.....	.....	13.50	7.00	4.25	2.75	12.50	5.75	.....	.....
Actual measurements in grams and millimeters.	.....	.....	.....	.....	23.25	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	17.00	1.00	0.25	0.75	17.50	1.00	0.25	0.75	14.75	1.00	0.25	0.75	10.25	1.00	0.25	0.75	12.50	1.00	0.25	0.75
	19.00	2.00	1.00	1.00	18.75	2.00	0.75	1.25	16.75	2.00	1.00	1.00	11.25	2.00	0.75	1.25	13.75	2.00	0.75	1.25
	21.50	3.00	1.50	1.50	19.50	3.00	1.50	1.50	17.50	3.00	1.25	1.75	11.75	3.00	1.50	1.50	14.50	3.00	.....	.....
	22.50	4.00	2.00	2.00	20.50	4.00	2.00	2.00	18.75	5.00	3.00	2.00	12.50	4.00	2.00	2.00	.....	.....	.....	.....
	23.50	5.00	.....	.....	21.50	5.00	3.00	2.00	19.75	5.25	.....	.....	13.00	5.00	3.00	2.00	.....	.....	.....	.....
	.....	.....	.....	.....	22.75	5.75	.....	.....	.....	.....	.....	.....	14.25	6.00	.....	.....	.....	.....	.....	.....
	18.50	1.00	0.25	0.75	12.75	1.00	0.25	0.75	.....	.....	.....	.....	8.50	1.00	0.00	1.00	10.75	1.00	0.00	1.00
	20.00	2.00	0.75	1.25	14.50	3.00	1.25	1.75	.....	.....	.....	.....	10.25	2.00	0.75	1.25	11.75	2.00	0.75	1.25
	21.00	3.00	1.25	1.75	15.50	5.00	2.75	2.25	.....	.....	.....	.....	11.25	3.00	1.25	1.75	12.25	3.00	1.25	1.75
	22.75	5.00	3.00	2.00	.....	.....	.....	.....	.....	.....	.....	.....	12.25	4.00	2.50	2.50	13.25	4.00	2.00	2.00
	23.75	5.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14.75	6.00	3.25	2.75
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15.50	6.75	.....	.....

LINCOLN.

Catalogue No. of samples ..	164. BELLY.				164. BELLY.				164.				164.				164.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	10.75	1.00	0.25	0.75	11.50	1.00	0.00	1.00	15.75	1.00	0.25	0.75	7.50	1.00	0.25	0.75	12.25	1.00	0.25	0.75
	12.25	2.00	0.75	1.25	12.75	2.00	0.75	1.25	16.25	2.00	0.75	1.25	8.00	2.00	0.75	1.25	12.75	2.00	0.75	1.25
	13.25	4.00	2.00	2.00	13.25	2.75	.....	.....	16.50	3.00	1.00	2.00	8.50	3.00	1.25	1.75	13.75	3.00	1.25	1.75
	14.50	6.00	.....	.....	.....	.....	.....	.....	17.25	4.00	1.75	2.25	9.25	4.00	2.00	2.00	14.00	4.00	2.00	2.00
	.....	.....	.....	.....	.....	.....	.....	.....	18.50	5.00	2.50	2.50	9.75	5.00	2.75	2.25	14.50	5.00	2.25	2.75
	.....	.....	.....	.....	.....	.....	.....	.....	20.50	6.00	3.00	3.00	10.75	6.00	3.25	2.75	16.50	6.00	3.00	3.00
	.....	.....	.....	.....	.....	.....	.....	.....	23.00	6.50	.....	.....	12.50	7.00	4.00	3.00	19.25	7.00	4.00	3.00
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13.50	7.50	.....	.....	20.00	7.25	.....	.....
	11.50	1.00	0.25	0.75	10.25	1.00	0.25	0.75	10.25	1.00	0.25	0.75	13.25	1.00	0.25	0.75	6.50	1.00	0.25	0.75
	13.00	2.00	1.00	1.00	11.50	2.00	1.00	1.00	10.50	2.00	0.75	1.25	13.75	2.00	0.75	1.25	7.50	2.00	0.75	1.25
	14.00	4.00	2.00	2.00	12.50	4.00	2.00	2.00	10.50	3.00	1.25	1.75	14.25	3.00	1.25	1.75	7.50	3.00	1.25	1.75
	15.00	4.75	.....	.....	13.00	5.00	.....	.....	11.00	4.00	2.00	2.00	14.50	4.00	2.00	2.00	7.75	4.00	1.75	2.25
	.....	.....	.....	.....	.....	.....	.....	.....	11.75	5.00	2.50	2.50	15.50	5.00	2.75	2.25	8.50	5.00	2.25	2.75
	.....	.....	.....	.....	.....	.....	.....	.....	12.50	6.00	.....	.....	17.00	6.00	3.25	2.75	9.75	6.00	3.00	3.00
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20.50	7.00	4.00	3.00	11.50	7.00	3.75	3.25
Actual measurements in grams and millimeters.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	23.00	8.00	4.75	3.25	11.50	7.25	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24.50	8.50	.....	.....	.....	.....	.....	.....
	10.75	1.00	0.00	1.00	11.00	1.00	0.00	1.00	6.24	1.00	0.25	0.75	8.50	1.00	0.25	0.75	9.50	1.00	0.25	0.75
	11.50	2.00	0.75	1.25	12.50	2.00	0.75	1.25	6.25	2.00	0.75	1.25	10.50	2.00	1.00	1.00	9.50	2.00	0.75	1.25
	12.00	3.00	1.25	1.75	13.00	3.00	1.25	1.75	7.50	3.00	1.25	1.75	11.00	3.00	1.25	1.75	9.75	3.00	1.25	1.75
	13.25	5.00	.....	.....	13.50	4.00	2.00	2.00	7.50	5.00	3.25	2.75	11.75	4.00	2.00	2.00	10.25	4.00	2.00	2.00
	.....	.....	.....	.....	14.75	5.00	.....	.....	8.75	6.00	3.25	2.75	12.25	5.00	2.50	2.50	11.25	5.00	2.70	2.00
	.....	.....	.....	.....	.....	.....	.....	.....	10.25	7.00	4.00	3.00	13.50	6.00	3.00	3.00	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	10.75	7.25	.....	.....	15.50	7.00	.....	.....	.....	.....	.....	.....
	16.50	1.00	0.25	0.75	.....	.....	.....	.....	6.75	1.00	0.25	0.75	12.75	1.00	0.25	0.75	14.75	1.00	0.25	0.75
	19.50	2.00	1.00	1.00	.....	.....	.....	.....	6.75	2.00	0.75	1.25	14.50	2.00	0.75	1.25	15.50	2.00	0.75	1.25
	20.25	3.00	1.50	1.50	.....	.....	.....	.....	7.25	3.00	1.25	1.75	14.50	3.00	1.25	1.75	16.25	3.00	1.25	1.75
	21.25	3.75	.....	.....	.....	.....	.....	.....	7.75	4.00	2.00	2.00	14.75	4.00	2.00	2.00	16.50	4.00	2.00	2.00
	.....	.....	.....	.....	.....	.....	.....	.....	8.75	5.00	2.75	2.25	15.50	5.00	.....	.....	17.50	5.00	2.50	2.50
	.....	.....	.....	.....	.....	.....	.....	.....	9.50	6.00	3.25	2.75	.....	.....	.....	.....	19.25	6.00	3.23	2.75
	.....	.....	.....	.....	.....	.....	.....	.....	10.75	7.00	.....	.....	.....	.....	.....	.....	23.25	7.00	4.00	3.00
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	25.75	8.00	4.75	3.25

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

LINCOLN.

Catalogue No. of samples.	164.				165.				165.				165.				165.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	2.50	1.00	0.25	0.75	16.75	1.00	0.25	0.75	13.25	1.00	0.25	0.75	13.00	1.00	0.25	0.75	14.50	1.00	0.25	0.75
	12.25	2.00	0.75	1.25	15.00	2.00	1.00	1.00	14.00	2.00	1.00	1.00	15.75	2.00	1.00	1.00	16.00	2.00	1.00	1.00
	13.75	3.00	1.25	1.75	13.25	3.00	1.25	1.75	15.00	3.00	.....	.....	16.75	3.00	1.25	1.75	17.25	4.00	2.00	2.00
	15.50	4.00	2.00	2.00	20.00	4.00	2.00	2.00	.....	.....	.....	.....	17.75	4.00	2.00	2.00	18.00	5.00	2.75	2.25
	17.50	5.00	2.50	2.50	21.25	5.00	2.60	2.40	.....	.....	.....	.....	19.25	5.00	2.75	2.25	19.75	6.00	3.75	2.25
	19.50	6.00	3.25	2.75	20.75	6.00	3.75	2.25	.....	.....	.....	.....	20.75	5.75	.....	.....	22.50	7.00	4.25	2.75
	24.00	7.00	.....	.....	23.50	6.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24.00	8.00	.....	.....
	17.75	1.00	0.25	0.75	15.50	1.00	0.00	1.00	13.75	1.00	0.25	0.75	13.50	1.00	0.25	0.75	14.75	1.00	0.25	0.75
	18.50	2.00	0.75	1.25	17.25	2.00	1.00	1.00	15.50	2.00	1.00	1.00	14.75	2.00	1.00	1.00	15.75	2.00	1.00	1.00
	19.00	3.00	1.25	1.75	18.00	3.00	1.25	1.75	16.50	3.00	1.25	1.75	15.00	3.00	.....	.....	16.50	3.00	1.25	1.75
	19.75	4.00	1.75	2.25	19.50	5.00	2.75	2.25	17.50	4.00	2.00	2.00	.....	.....	.....	.....	17.75	5.00	2.75	2.25
	20.00	5.00	2.50	2.50	21.50	6.00	3.75	2.25	19.00	6.00	3.25	2.75	.....	.....	.....	.....	19.50	6.00	3.50	2.50
	23.00	6.00	3.25	2.75	23.25	7.00	4.25	2.75	21.75	7.00	.....	.....	.....	.....	.....	.....	22.25	7.00	.....	.....
	27.00	7.00	4.00	3.00	24.50	7.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	9.75	1.00	0.25	0.75	13.00	1.00	0.25	0.75	11.75	1.00	0.00	1.00	14.50	1.00	0.00	1.00	13.00	1.00	0.00	1.00
	17.00	2.00	0.75	1.25	14.75	3.00	1.25	1.75	13.50	2.00	1.00	1.00	17.75	2.00	0.75	1.25	16.50	2.00	0.75	1.25
	18.75	3.00	1.25	1.75	16.50	4.00	2.00	2.00	15.00	3.00	1.25	1.75	18.75	3.00	1.25	1.75	19.50	3.00	1.00	2.00
	19.75	4.00	1.75	2.25	16.00	5.00	.....	.....	16.50	4.00	.....	.....	.....	.....	.....	.....	22.50	3.75	.....	.....
	21.50	5.00	2.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	12.75	6.00	3.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	15.50	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	17.00	8.00	4.75	3.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	18.25	8.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	16.00	1.00	0.25	0.75	12.50	1.00	0.25	0.75	12.75	1.00	0.00	1.00	.....	.....	.....	.....
	.....	.....	.....	.....	18.25	2.00	1.00	1.00	13.00	2.00	1.00	1.00	14.75	2.00	0.75	1.25	.....	.....	.....	.....
	.....	.....	.....	.....	19.25	3.00	1.25	1.75	14.00	2.75	.....	.....	15.50	3.00	1.25	1.75	.....	.....	.....	.....
	.....	.....	.....	.....	20.50	5.00	2.75	2.25	.....	.....	.....	.....	16.75	5.00	2.75	2.25	.....	.....	.....	.....
	.....	.....	.....	.....	21.75	6.00	3.25	2.75	.....	.....	.....	.....	18.50	6.00	3.25	2.75	.....	.....	.....	.....
	.....	.....	.....	.....	25.00	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

LINCOLN.

Catalogue No. of samples.	166.				166.				166.				166.				167.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	13.75	1.00	0.25	0.75	12.75	1.00	0.00	1.00	13.75	1.00	0.25	0.75	16.25	1.00	0.25	0.75	14.75	1.00	0.25	0.75
	20.50	2.00	0.75	1.25	13.25	3.00	1.00	2.00	14.25	3.00	1.00	2.00	17.50	3.00	1.00	2.00	15.75	3.00	1.00	2.00
	21.50	3.00	1.25	1.75	14.75	5.00	2.25	2.75	16.25	5.00	2.25	2.75	18.25	4.00	1.75	2.25	16.50	4.00	1.75	2.25
	22.75	4.00	2.00	2.00	17.50	6.00	3.00	3.00	18.75	6.00	3.00	3.00	19.50	5.00	2.25	2.75	17.50	5.00	2.25	2.75
	24.50	5.00	2.75	2.25	20.50	7.00	4.00	3.00	21.50	7.00	3.75	3.25	22.50	6.00	3.00	3.00	20.25	6.00	3.00	3.00
	28.75	6.00	3.25	2.75	20.75	7.25	.....	.....	26.25	8.50	.....	.....	26.25	7.00	4.00	3.00	23.25	6.75	.....	.....
	32.00	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27.25	7.50	.....	.....	.....	.....	.....	.....
	19.00	1.00	0.00	1.00	16.25	1.00	0.00	1.00	18.00	1.00	0.25	0.75	14.75	1.00	0.25	0.75	7.50	1.00	0.25	0.75
	20.25	2.00	0.75	1.25	17.75	2.00	0.50	1.50	18.75	3.00	1.00	2.00	15.50	2.00	0.75	1.25	8.50	3.00	1.25	1.75
	21.50	3.00	1.25	1.75	18.50	3.00	1.00	2.00	19.25	4.00	1.75	2.25	17.25	4.00	1.75	2.25	9.00	4.00	2.00	2.00
	21.75	3.50	.....	.....	20.50	5.00	2.00	3.00	20.50	5.00	2.25	2.75	18.25	5.00	2.50	2.50	9.50	5.00	2.50	2.50
	.....	.....	.....	.....	23.75	6.00	3.00	3.00	23.75	6.00	3.00	3.00	20.25	6.00	3.00	3.00	10.25	6.00	.....	.....
	.....	.....	.....	.....	28.25	7.00	3.75	3.25	29.25	7.00	3.75	3.25	24.50	7.00	4.00	3.00	.....	.....	.....	.....
	.....	.....	.....	.....	33.50	8.00	.....	.....	.....	.....	.....	.....	28.50	8.25	.....	.....	.....	.....	.....	.....
	12.00	1.00	0.25	0.75	11.50	1.00	0.25	0.75	18.00	1.00	0.00	1.00	16.00	1.00	0.25	0.75	13.50	1.00	0.25	0.75
	13.50	2.00	0.75	1.25	12.25	3.00	1.00	2.00	19.00	2.00	0.50	1.50	17.25	3.00	1.25	1.75	14.50	3.00	1.00	2.00
	14.75	4.00	2.00	2.00	13.75	5.00	2.25	2.75	19.50	3.00	1.00	2.00	17.75	4.00	1.75	2.25	15.50	5.00	2.25	2.75
	15.50	5.00	2.75	2.25	16.25	6.00	3.00	3.00	20.50	4.00	1.75	2.25	19.00	5.00	2.25	2.75	18.00	6.00	3.00	3.00
	17.50	6.00	3.25	2.75	18.25	7.00	4.00	3.00	22.25	5.00	2.25	2.75	21.75	6.00	3.00	3.00	22.00	7.00	3.75	3.25
	20.50	6.75	.....	.....	21.50	8.00	4.75	3.25	26.00	6.00	3.25	2.75	25.75	7.00	3.75	3.25	22.75	7.50	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30.50	8.25	.....	.....	.....	.....	.....	.....
	14.50	1.00	0.25	0.75	19.50	1.00	0.00	1.00	13.25	1.00	0.00	1.00	.....	.....	.....	.....	10.75	1.00	0.25	0.75
	15.50	2.00	0.75	1.25	20.50	3.00	1.00	2.00	14.25	3.00	1.00	2.00	.....	.....	.....	.....	12.50	2.00	0.75	1.25
	17.25	4.00	2.00	2.00	21.25	4.00	1.75	2.25	15.50	5.00	2.25	2.75	.....	.....	.....	.....	13.50	4.00	1.75	2.25
	18.50	5.00	2.50	2.50	22.50	5.00	2.25	2.75	18.50	6.00	3.00	3.00	.....	.....	.....	.....	14.00	5.00	2.25	2.75
	20.25	6.00	3.00	3.00	26.50	6.00	3.00	3.00	22.25	7.00	3.75	3.25	.....	.....	.....	.....	16.25	6.00	.....	.....
	23.75	7.00	4.00	3.00	29.00	6.50	.....	.....	25.50	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	26.25	7.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

LINCOLN.

Catalogue No. of samples..	167.				167.				167.				168.				168.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	9.00	1.00	0.00	1.00	13.75	1.00	0.25	0.75	8.75	1.00	0.25	0.75	12.50	1.00	0.25	0.75	12.00	1.00	0.25	0.75
	10.50	4.00	1.50	2.50	14.00	2.00	0.75	1.25	9.75	2.00	1.00	1.00	13.25	3.00	2.00	2.00	12.50	3.00	1.00	2.00
	12.75	6.00	2.75	3.25	14.50	4.00	1.78	2.25	10.25	3.00	1.25	1.75	15.00	5.00	2.25	2.75	13.50	5.00	2.00	3.00
	15.50	7.00	3.25	3.75	15.50	5.00	2.25	2.75	10.75	4.00	.....	.....	17.25	6.00	3.25	2.75	15.25	6.00	2.75	3.25
	.....	.....	.....	.....	18.00	6.00	3.00	3.00	.....	.....	.....	.....	20.50	7.00	.....	.....	18.50	7.00	3.50	3.50
	.....	.....	.....	.....	21.75	7.00	3.75	3.25	.....	.....	.....	.....	.....	.....	.....	.....	20.75	7.75	.....	.....
	.....	.....	.....	.....	24.50	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	11.75	1.00	0.25	0.75	13.50	1.00	0.25	0.75	14.00	1.00	0.25	0.75	9.50	1.00	0.00	1.00	12.50	1.00	0.25	0.75
	12.50	2.00	0.75	1.25	14.58	3.00	1.00	2.00	14.75	3.00	1.00	2.00	10.25	4.00	1.25	2.75	13.00	2.00	0.50	1.50
	13.25	3.00	1.00	2.00	15.25	4.00	2.00	2.00	15.25	4.00	1.75	2.25	12.50	6.00	2.75	3.25	13.50	3.00	1.00	2.00
	14.25	5.00	2.00	3.00	16.25	5.00	2.50	2.50	18.25	6.00	3.00	3.00	14.75	7.00	3.50	3.00	14.50	5.00	2.00	3.00
	16.00	6.00	.....	.....	18.75	6.00	3.25	2.75	22.75	7.00	4.00	3.00	16.75	8.00	4.25	3.75	16.25	6.00	2.75	3.25
	.....	.....	.....	.....	22.50	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	16.75	7.00	3.50	3.50
	.....	.....	.....	.....	25.50	8.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	22.75	8.00	.....	.....
	10.00	1.00	0.00	1.00	5.75	1.00	0.00	1.00	12.00	1.00	0.25	0.75	11.75	1.00	0.00	1.00	11.00	1.00	0.00	1.00
	10.50	2.00	0.75	1.25	6.25	2.00	0.75	1.25	12.50	2.00	0.75	1.25	12.50	2.00	0.75	1.25	11.75	4.00	1.75	2.25
	11.25	4.00	1.75	2.25	7.25	4.00	1.75	2.25	13.00	6.00	1.25	1.75	13.00	4.00	1.50	2.50	14.50	6.00	3.00	3.00
	12.00	5.00	2.25	2.75	8.50	6.00	3.00	3.00	13.50	4.00	1.75	2.25	13.75	5.00	2.25	2.75	17.50	7.00	3.75	3.25
	14.00	6.00	3.00	3.00	10.75	7.00	4.00	3.00	14.75	5.00	2.50	2.50	15.50	6.00	2.75	3.25	19.50	8.00	.....	.....
	16.25	7.90	3.75	3.25	12.50	8.00	.....	.....	16.50	6.00	3.00	3.00	19.00	7.00	3.50	3.50	.....	.....	.....	.....
	18.25	8.00	.....	.....	.....	.....	.....	.....	19.50	7.00	4.00	3.00	21.50	7.75	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	21.75	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	11.75	1.00	0.25	0.75	4.50	1.00	0.00	1.00	.....	.....	.....	.....	10.75	1.00	0.25	0.75	9.50	1.00	0.25	0.75
	12.75	2.00	0.75	1.25	5.25	3.00	1.25	1.75	.....	.....	.....	.....	11.50	2.00	0.75	1.25	10.25	4.00	1.25	2.75
	13.50	3.00	1.00	2.00	6.00	5.00	2.25	2.75	.....	.....	.....	.....	12.25	4.00	1.75	2.25	12.25	6.00	2.75	3.25
	14.75	5.00	2.25	2.75	8.75	7.00	3.75	3.25	.....	.....	.....	.....	14.25	6.00	2.75	3.25	13.00	6.25	.....	.....
	17.50	6.00	3.00	3.00	10.00	8.00	.....	.....	.....	.....	.....	.....	15.25	6.50	.....	.....	.....	.....	.....	.....
	20.75	7.00	3.75	3.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	22.50	7.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

LINCOLN.

Catalogue No. of samples..	168.				168.				169.				169.				169.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	10.75	1.00	0.25	0.75	8.00	1.00	0.25	0.75	6.75	1.00	0.25	0.75	12.50	1.00	0.25	0.75	15.75	1.00	0.25	0.75
	11.25	2.00	0.75	1.25	9.50	3.00	1.25	1.75	7.75	2.00	0.75	1.25	13.50	3.00	1.00	2.00	16.50	2.00	0.75	1.25
	12.50	5.00	2.25	2.75	10.00	4.00	2.00	2.00	8.50	3.00	1.25	1.75	14.00	4.00	2.00	2.00	17.75	3.00	1.25	1.75
	13.75	6.00	3.00	3.00	10.50	5.00	2.50	2.50	9.50	5.00	2.50	2.50	14.75	5.00	2.50	2.50	17.50	4.00	1.75	2.23
	17.00	7.00	3.75	3.25	11.75	6.00	3.00	3.00	10.50	6.00	3.25	2.75	17.00	6.00	3.00	3.00	19.00	5.00	2.25	2.75
	19.00	8.00	.....	.....	12.50	6.50	.....	.....	11.75	7.00	.....	.....	19.75	6.75	.....	.....	21.75	6.00	.....	.....
	11.50	1.00	0.25	0.75	7.75	1.00	0.25	0.75	8.50	1.00	0.00	1.00	10.50	1.00	0.25	0.75	13.50	1.00	0.25	0.75
	12.50	3.00	1.00	2.00	9.50	2.00	0.75	1.25	9.50	3.00	1.25	1.75	11.00	2.00	0.75	1.25	14.25	2.00	0.75	1.25
	13.25	5.00	2.00	3.00	10.50	4.00	1.75	2.25	10.25	4.00	2.00	2.00	11.50	3.00	1.00	2.00	14.25	4.00	1.75	2.25
	14.75	6.00	3.00	3.00	11.00	5.00	2.50	2.50	12.25	6.00	3.25	2.75	12.25	4.00	1.75	2.25	16.25	5.00	2.25	2.75
	17.75	7.00	3.75	3.25	11.75	6.00	3.25	2.75	.....	.....	.....	.....	13.50	5.00	2.50	2.50	18.75	6.00	3.25	2.75
	20.25	8.00	.....	.....	14.50	7.00	.....	.....	.....	.....	.....	.....	14.75	6.00	3.00	3.00	22.00	7.00	4.00	3.00
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17.50	7.00	4.00	3.00	24.75	8.25	.....	.....
	12.75	1.00	0.75	0.25	8.25	1.00	0.25	0.75	13.50	1.00	0.25	0.75	12.25	1.00	0.00	1.00	10.25	1.00	0.25	0.75
	13.25	2.00	0.75	1.25	9.25	3.00	1.00	2.00	14.00	2.00	0.75	1.25	13.00	3.00	1.00	2.00	11.25	4.00	1.50	2.50
	14.25	4.00	1.75	2.25	10.25	4.00	1.75	2.25	14.75	4.00	2.00	2.00	13.50	4.00	1.75	2.25	12.25	5.00	2.25	2.75
	15.00	5.00	2.50	2.50	12.25	6.00	3.00	3.00	15.75	5.00	2.50	2.50	14.50	5.00	2.25	2.75	14.75	6.00	3.00	3.00
	17.00	6.00	3.00	3.00	13.50	7.00	.....	.....	17.50	6.00	3.25	2.75	17.00	6.00	3.00	3.00	18.00	7.00	3.75	3.25
	20.25	7.00	3.75	3.25	.....	.....	.....	.....	20.50	7.00	4.00	3.00	20.75	7.00	3.50	3.50	19.50	8.00	.....	.....
	22.50	7.75	.....	.....	.....	.....	.....	.....	22.00	7.75	.....	.....	23.25	8.25	.....	.....	.....	.....	.....	.....
	13.00	1.00	0.25	0.75	.....	.....	.....	.....	10.50	1.00	0.25	0.75	15.75	1.00	0.50	0.50	14.50	1.00	0.25	0.75
	13.75	2.00	0.75	1.25	.....	.....	.....	.....	13.75	2.00	0.75	1.25	17.75	2.00	0.75	1.25	15.50	3.00	1.00	2.00
	14.50	3.00	1.00	2.00	.....	.....	.....	.....	14.25	3.00	1.00	2.00	18.50	3.00	1.25	1.75	16.25	4.00	1.75	2.25
	16.00	5.00	2.25	2.75	.....	.....	.....	.....	16.50	5.00	2.25	2.75	19.25	4.00	2.00	2.00	20.00	6.00	3.00	3.00
	18.50	6.00	3.00	3.00	.....	.....	.....	.....	20.00	6.00	.....	.....	22.75	6.00	3.00	3.00	22.75	7.00	.....	.....
	22.25	7.00	3.75	3.25	.....	.....	.....	.....	.....	.....	.....	.....	25.25	7.00	.....	.....	.....	.....	.....	.....
	24.75	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

	LINCOLN.				SOUTHDOWN.															
Catalogue No. of samples..	169.				132.				132.				132.				132.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	13.50	1.00	0.75	0.25	10.50	1.00	0.25	0.75	7.50	1.00	0.00	1.00	4.50	1.00	0.25	0.75	7.00	1.00	0.25	0.75
	14.25	2.00	0.75	1.25	13.75	2.00	1.00	1.00	8.75	2.00	1.00	1.00	5.50	2.00	1.00	1.00	8.50	2.00	1.00	1.00
	15.25	4.00	1.75	2.25	15.00	3.00	.....	.....	10.00	3.00	1.50	1.50	6.50	4.00	2.00	2.00	9.25	3.25	.....	.....
	16.25	5.00	2.50	2.50	.....	.....	.....	.....	11.50	5.00	2.75	2.25	.....	.....	.....	.....	.....	.....	.....	.....
	18.75	6.00	3.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	22.50	7.00	3.75	3.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	13.50	1.00	0.25	0.75	9.75	1.00	0.25	0.75	10.75	1.00	0.00	1.00	10.25	1.00	0.00	1.00	11.50	1.00	0.25	0.75
	14.25	3.00	1.00	2.00	14.25	2.00	1.00	1.00	12.25	2.00	0.75	1.25	11.50	2.00	0.75	1.25	12.75	2.00	1.00	1.00
	15.50	5.00	2.00	3.00	15.75	4.00	2.00	2.00	13.00	3.00	1.25	1.75	12.50	3.00	1.25	1.75	13.75	3.00	1.25	1.75
	18.75	6.00	3.00	3.00	16.75	5.00	2.75	2.25	14.50	5.00	2.50	2.50	13.25	4.00	2.00	2.00	14.75	4.00	2.00	2.00
	.....	.....	.....	.....	17.75	6.00	.....	.....	15.75	6.00	3.25	2.75	13.50	4.50	.....	.....	15.25	4.75	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	16.00	6.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	11.50	1.00	0.00	1.00	7.25	1.00	0.25	0.75	6.00	1.00	0.25	0.75	8.50	1.00	0.25	0.75	6.25	1.00	0.25	0.75
	12.00	2.00	0.75	1.25	9.50	2.00	0.75	1.25	7.25	2.00	1.00	1.00	9.75	2.00	1.00	1.00	7.50	2.00	1.00	1.00
	12.50	4.00	1.50	2.50	12.75	4.00	2.00	2.00	8.75	4.00	2.00	2.00	10.50	3.00	1.25	1.75	8.50	4.00	.....	.....
	13.75	5.00	2.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	16.75	6.00	3.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	19.75	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

	SOUTHDOWN.																			
Catalogue No. of samples..	132.				132.				132.				132.				132.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	9.25	1.00	0.25	0.75	7.00	1.00	0.25	0.75	14.50	1.00	0.25	0.75	10.25	1.00	0.25	0.75	12.75	1.00	0.25	0.75
	11.00	2.00	1.00	1.00	9.75	2.00	1.00	1.00	17.50	2.00	1.00	1.00	11.50	2.00	1.00	1.00	14.50	2.00	1.00	1.00
	12.00	2.75	.....	.....	10.50	3.00	.....	.....	19.00	3.00	1.25	1.75	12.75	4.00	2.00	2.00	15.75	3.00	1.25	1.75
	.....	.....	.....	.....	.....	.....	.....	.....	20.50	4.00	.....	.....	13.75	5.00	2.75	2.25	16.75	4.00	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14.50	6.00	.....	.....	.....	.....	.....	.....
	8.00	1.00	0.25	0.75	12.25	1.00	0.00	1.00	8.00	1.00	0.25	0.75	12.50	1.00	0.25	0.75	10.25	1.00	0.00	1.00
	10.00	2.00	0.75	1.25	13.75	2.00	0.75	1.25	9.00	2.00	1.00	1.00	15.50	2.00	1.00	1.00	11.25	2.00	0.75	1.25
	11.25	5.00	3.00	2.00	14.75	3.00	1.25	1.75	10.50	4.00	2.00	2.0	16.50	3.00	1.25	1.75	12.25	4.25	2.00	2.00
	12.75	6.00	3.25	2.75	16.00	5.00	2.50	2.50	11.50	5.00	2.75	2.25	17.75	4.00	2.00	2.00	14.50	6.00	.....	.....
	14.00	7.00	.....	.....	16.50	5.25	.....	.....	13.50	7.00	4.00	3.00	19.25	5.00	3.00	2.00	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19.25	5.75	.....	.....	.....	.....	.....	.....
	8.25	1.00	0.00	1.00	15.75	1.00	0.25	0.75	6.75	1.00	0.25	0.75	11.75	1.00	0.00	1.00	10.25	1.00	0.25	0.75
	9.50	2.00	1.00	1.00	17.50	2.00	1.00	1.00	7.75	2.00	1.00	1.00	13.50	2.00	0.75	1.25	11.50	2.00	1.00	1.00
	10.25	3.00	1.25	1.75	18.50	3.00	1.25	1.75	8.50	2.75	.....	.....	14.50	3.00	1.25	1.75	12.50	3.00	1.25	1.75
	10.50	3.75	.....	.....	19.50	4.00	.....	.....	.....	.....	.....	.....	16.00	5.00	2.75	2.25	15.00	5.00	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

SOUTHDOWN.

Catalogue No. of samples..	132.				133.				133.				133.				133.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	11.50	1.00	0.25	0.75	11.75	1.00	0.25	0.75	14.50	1.00	0.25	0.75	13.75	1.00	0.25	0.75	11.25	1.00	0.25	0.75
	13.00	2.00	1.00	1.00	14.50	2.00	1.00	1.00	15.75	2.00	0.75	1.25	15.50	2.00	0.75	1.25	14.75	2.00	1.00	1.00
	13.75	3.00	1.25	1.75	15.50	3.00	1.25	1.75	16.50	3.00	1.25	1.75	16.50	3.00	1.25	1.75	15.75	4.00	2.00	2.00
	15.00	4.00	2.00	2.00	16.75	5.00	2.50	2.50	18.00	5.00	2.50	2.50	.....	.....	.....	.....	16.50	5.00	3.00	2.00
	17.50	6.00	3.25	2.75	17.75	6.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17.75	6.00	3.25	2.75
	19.00	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	10.50	1.00	0.25	0.75	14.50	1.00	0.25	0.75	11.75	1.00	0.25	0.75	13.00	1.00	0.25	0.75	9.75	1.00	0.25	0.75
	12.50	2.00	1.00	1.00	15.75	2.00	0.75	1.25	13.25	2.00	1.00	1.00	14.75	2.00	1.00	1.00	10.75	3.00	1.25	1.75
	14.00	4.00	2.00	2.00	16.75	4.00	2.00	2.00	14.50	3.00	1.25	1.75	15.75	3.00	1.75	1.25	12.25	4.00	.....	.....
	14.75	4.75	.....	.....	18.25	5.00	2.75	2.25	16.25	5.00	.....	.....	16.50	4.00	2.00	2.00	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17.50	4.75	.....	.....	.....	.....	.....	.....
	10.75	1.00	0.25	0.75	10.25	1.00	0.25	0.75	9.50	1.00	0.25	0.75	13.75	1.00	0.25	0.75	8.25	1.00	0.25	0.75
	12.50	2.00	1.00	1.00	11.50	2.00	0.75	1.25	11.00	2.00	1.00	1.00	14.75	2.00	1.00	1.00	9.50	2.00	1.00	1.00
	13.50	3.00	1.25	1.75	12.50	4.00	2.00	2.00	11.75	3.00	1.50	1.50	16.50	3.00	1.25	1.75	10.50	3.00	1.25	1.75
	14.75	5.00	2.75	2.25	13.50	5.00	2.75	2.25	13.50	5.00	3.00	2.00	17.50	4.00	2.00	2.00	11.50	4.00	2.00	2.00
	.....	.....	.....	.....	14.75	6.00	3.25	2.75	14.50	6.00	.....	.....	19.25	6.00	.....	.....	.....	.....	.....	.....

SOUTHDOWN.

Catalogue No. of samples..	133.				134.				134.				134.				134.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	7.75	1.00	0.25	0.75	11.25	1.00	0.25	0.75	12.50	1.00	0.25	0.75	15.50	1.00	0.25	0.75	12.50	1.00	0.25	0.75
	9.50	2.00	1.00	1.00	12.25	2.00	1.00	1.00	13.75	2.00	1.00	1.00	17.25	2.00	1.00	1.00	14.25	2.00	1.00	1.00
	11.25	3.75	.....	.....	13.50	4.00	2.00	2.00	14.50	3.00	1.25	1.75	18.25	3.00	1.25	1.75	15.50	4.00	2.00	2.00
	.....	.....	.....	.....	14.50	5.00	3.00	2.00	15.50	5.00	2.50	2.50	19.75	5.00	2.75	2.25	17.00	6.00	3.50	2.50
	.....	.....	.....	.....	16.50	5.75	.....	.....	16.75	6.00	3.25	2.75	22.25	6.00	.....	.....	19.50	7.00	4.00	3.00
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20.50	7.50	.....	.....
	8.00	1.00	0.25	0.75	15.50	1.00	0.25	0.75	12.25	1.00	0.25	0.75	12.25	1.00	0.25	0.75	11.50	1.00	0.25	0.75
	9.50	2.00	1.00	1.00	16.75	2.00	0.75	1.25	12.75	2.00	0.75	1.25	13.25	2.00	0.75	1.25	12.75	2.00	1.00	1.00
	9.75	2.25	.....	.....	17.75	3.00	1.25	1.75	13.50	3.00	1.25	1.75	13.75	3.00	1.25	1.75	13.50	3.00	1.25	1.75
	.....	.....	.....	.....	18.75	4.00	2.00	2.00	15.25	5.00	2.50	2.50	14.50	5.00	2.75	2.25	14.25	4.00	.....	.....
	.....	.....	.....	.....	19.75	5.00	3.00	2.00	16.50	6.00	3.25	2.75	15.75	6.00	3.25	2.75	.....	.....	.....	.....
	.....	.....	.....	.....	20.00	5.75	.....	.....	18.25	7.00	4.00	3.00	18.25	7.00	.....	.....	.....	.....	.....	.....
	9.75	1.00	0.25	0.75	7.75	1.00	0.25	0.75	16.50	1.00	0.25	0.75	10.50	1.00	0.25	0.75	17.00	1.00	0.25	0.75
	12.50	2.00	0.75	1.25	9.25	2.00	1.00	1.00	18.25	2.00	0.75	1.25	11.75	3.00	1.25	1.75	19.00	2.00	0.75	1.25
	13.50	3.00	1.25	1.75	10.25	4.00	2.00	2.00	19.25	3.00	1.00	2.00	12.50	4.00	2.00	2.00	20.00	4.00	2.00	2.00
	14.50	4.00	2.00	2.00	10.50	5.00	3.00	2.00	20.00	4.00	2.00	2.00	13.50	5.00	2.75	2.25	21.50	5.00	3.00	2.00
	15.75	5.00	2.75	2.25	11.75	6.00	4.00	2.00	21.25	5.00	2.75	2.25	14.00	6.00	3.25	2.75	23.75	6.00	3.50	2.50
	16.50	5.75	.....	.....	12.75	7.75	.....	.....	22.50	6.00	3.50	2.50	15.50	7.00	.....	.....	27.00	7.00	4.00	3.00
	.....	.....	.....	.....	.....	.....	.....	.....	23.75	6.75	.....	.....	.....	.....	.....	.....	30.25	8.00	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17.25	1.00	0.25	0.75
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20.50	2.00	1.00	1.00
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21.50	4.00	2.00	2.00
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	23.00	5.00	2.75	2.25
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	25.25	6.00	3.25	2.75
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27.25	6.75	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

SOUTHDOWN.

Catalogue No. of samples..	134.				135.				135.				135.				135.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
Actual measurements in grams and millimeters.	11.50	1.00	0.00	1.00	9.75	1.00	0.25	0.75	12.00	1.00	0.25	0.75	11.50	1.00	0.25	0.75	9.50	1.00	0.25	0.75
	12.25	2.00	0.75	1.25	13.75	2.00	1.00	1.00	14.00	2.00	1.00	1.00	10.50	2.00	1.00	1.00	11.25	2.00	0.75	1.25
	14.75	4.00	2.00	2.00	15.25	3.00	.....	.....	15.25	2.75	.....	.....	14.25	3.00	1.50	1.50	12.25	4.00	2.00	2.00
	15.50	6.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12.75	6.00	3.25	2.75
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14.75	6.75	.....	.....
	10.75	1.00	0.00	1.00	12.75	1.00	0.25	0.75	12.50	1.00	0.25	0.75	13.75	1.00	0.25	0.75	13.50	1.00	0.25	0.75
	12.25	2.00	0.75	1.25	15.75	2.00	1.00	1.00	14.75	2.00	1.00	1.00	16.00	2.00	1.00	1.00	14.50	2.00	0.75	1.25
	13.25	4.00	2.00	2.00	17.50	3.00	1.25	1.75	15.50	3.00	1.25	1.75	16.75	3.00	1.25	1.75	15.25	3.00	1.25	1.75
	14.75	6.00	3.25	2.75	19.75	4.75	.....	.....	17.25	5.00	.....	.....	18.00	4.00	2.00	2.00	16.75	5.00	2.75	2.25
	16.75	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	20.50	6.00	.....	.....	18.75	6.00	3.25	2.75
	17.50	7.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19.50	6.25	.....	.....
	.....	.....	.....	.....	13.25	1.00	0.25	0.75	9.75	1.00	0.25	0.75	9.25	1.00	0.25	0.75	8.00	1.00	0.25	0.75
	.....	.....	.....	.....	16.50	2.00	0.75	1.25	12.50	2.00	0.75	1.25	10.50	2.00	1.00	1.00	10.50	2.00	0.75	1.25
	.....	.....	.....	.....	17.25	3.00	1.25	1.75	13.25	3.00	1.25	1.75	11.75	4.00	2.00	2.00	11.50	3.00	1.25	1.75
	.....	.....	.....	.....	19.25	5.00	2.50	2.50	.....	.....	.....	.....	12.50	5.00	2.75	2.25	12.75	5.00	2.75	2.25
	.....	.....	.....	.....	20.75	6.00	3.25	2.75	.....	.....	.....	.....	13.75	6.00	.....	.....	13.75	6.00	3.25	2.75
	.....	.....	.....	.....	11.25	1.00	0.25	0.75	11.75	1.00	0.25	0.75	11.75	1.00	0.25	0.75	.....	.....	.....	.....
	.....	.....	.....	.....	12.75	2.00	0.75	1.25	16.75	2.00	1.00	1.00	12.50	2.00	1.00	1.00	.....	.....	.....	.....
	.....	.....	.....	.....	14.75	4.00	2.00	2.00	18.75	3.00	1.50	1.50	13.00	2.50	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	16.00	5.00	2.50	2.50	20.50	4.00	2.00	2.00	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	17.25	6.00	3.25	2.75	21.75	5.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	18.75	6.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

SOUTHDOWN.

Catalogue No. of samples..	136.				136.				136.				136.				137.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
Actual measurements in grams and millimeters.	10.50	1.00	0.25	0.75	6.50	1.00	0.00	1.00	4.75	1.00	0.25	0.75	4.75	1.00	0.00	1.00	15.50	1.00	0.25	0.75
	12.75	2.00	0.75	1.25	9.25	2.00	0.25	1.75	8.50	2.00	0.75	1.25	5.75	2.00	0.75	1.25	18.00	2.00	1.00	1.00
	13.50	3.00	1.25	1.75	10.75	3.00	1.00	2.00	9.75	3.00	1.00	2.00	6.50	2.75	.....	.....	19.25	3.00	1.25	1.75
	14.75	5.00	2.50	2.50	11.50	5.00	.....	.....	11.00	3.75	.....	.....	.....	.....	.....	.....	20.75	5.00	2.75	2.25
	15.25	5.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	22.50	6.00	3.50	2.50
	9.25	1.00	0.25	0.75	13.50	1.00	0.25	0.75	14.50	1.00	0.25	0.75	12.50	1.00	0.00	1.00	11.50	1.00	0.25	0.75
	12.25	2.00	0.75	1.25	15.25	2.00	1.00	1.00	18.50	2.00	0.75	1.25	13.50	2.00	0.75	1.25	13.75	2.00	0.75	1.25
	13.50	3.00	1.00	2.00	16.50	4.00	2.00	2.00	20.00	3.00	1.00	2.00	14.25	3.00	1.25	1.75	14.75	3.00	1.25	1.75
	14.50	4.00	2.00	2.00	.....	.....	.....	.....	21.25	4.00	2.00	2.00	15.00	3.75	.....	.....	15.25	4.00	2.00	2.00
	15.75	5.00	2.50	2.50	.....	.....	.....	.....	22.00	5.00	2.75	2.25	.....	.....	.....	.....	16.75	6.00	3.25	2.75
	17.00	5.75	.....	.....	.....	.....	.....	.....	23.00	6.00	.....	.....	.....	.....	.....	.....	19.00	7.00	4.00	3.00
	11.75	1.00	0.25	0.75	13.25	1.00	0.25	0.75	11.25	1.00	0.25	0.75	8.25	1.00	0.25	0.75	13.50	1.00	0.25	0.75
	13.00	2.00	1.00	1.00	14.25	2.00	1.00	1.00	15.50	2.00	1.00	1.00	9.50	2.00	1.00	1.00	16.50	2.00	1.00	1.00
	14.50	3.00	1.25	1.75	15.25	2.75	.....	.....	18.50	3.00	1.25	1.75	10.50	4.00	2.00	2.00	17.50	3.00	1.25	1.75
	15.25	4.00	2.00	2.00	.....	.....	.....	.....	17.50	4.00	2.00	2.00	.....	.....	.....	.....	18.25	4.00	2.00	2.00
	16.50	5.00	3.00	2.00	.....	.....	.....	.....	19.00	6.00	3.25	2.75	.....	.....	.....	.....	19.25	5.00	3.00	2.00
	.....	.....	.....	.....	.....	.....	.....	.....	21.50	7.00	4.00	3.00	.....	.....	.....	.....	20.50	6.00	3.50	2.50
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	22.50	7.00	4.25	2.75
	15.00	1.00	0.25	0.75	11.25	1.00	0.25	0.75	12.75	1.00	0.25	0.75	.....	.....	.....	.....	14.75	1.00	0.25	0.75
	16.50	1.75	0.75	1.25	14.50	2.00	0.75	1.25	15.50	2.00	1.00	1.00	.....	.....	.....	.....	17.00	2.00	1.00	1.00
	17.25	3.00	1.25	1.75	16.25	3.00	1.25	1.75	16.75	3.00	1.25	1.75	.....	.....	.....	.....	18.25	4.00	2.00	2.00
	.....	.....	.....	.....	16.75	4.00	2.00	2.00	18.25	4.00	.....	.....	.....	.....	.....	.....	20.00	6.00	3.25	2.75
	.....	.....	.....	.....	17.25	4.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

SOUTHDOWN.

Actual measurements in grams and millimeters.

Catalogue No. of samples ..	137.				137.				137.				138.				138.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	14.50	1.00	0.25	0.75	23.25	1.00	0.25	0.75	14.50	1.00	0.25	0.75	8.25	1.00	0.25	0.75	12.00	1.00	0.25	0.75
	17.75	2.00	0.75	1.25	25.25	2.00	1.00	1.00	16.75	2.00	1.00	1.00	11.75	2.00	0.75	1.25	13.00	2.00	0.75	1.25
	18.50	3.00	1.25	1.75	26.75	3.00	1.25	1.75	17.50	3.00	1.25	1.75	12.75	3.00	1.00	2.00	14.25	4.00	2.00	2.00
	19.25	4.00	2.00	2.00	27.50	4.00	2.00	2.00	18.50	4.00	2.00	2.00	15.00	4.00	.....	.....	15.00	5.00	2.75	2.25
	20.25	5.00	3.00	2.00	29.50	5.00	2.75	2.25	19.25	5.00	2.75	2.25	.....	.....	.....	.....	.....	.....	.....	.....
	22.00	6.00	3.50	2.50	.....	.....	.....	.....	20.25	6.00	3.50	2.50	.....	.....	.....	.....	.....	.....	.....	.....
	24.75	7.00	.....	.....	.....	.....	.....	.....	23.25	7.00	4.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....
	11.25	1.00	0.25	0.75	13.25	1.00	0.25	0.75	12.75	1.00	0.25	0.75	6.75	1.00	0.25	0.75	9.50	1.00	0.25	0.75
	13.50	2.00	1.00	1.00	14.50	2.00	1.00	1.00	14.50	2.00	1.00	1.00	8.00	2.00	1.00	1.00	10.50	2.00	0.75	1.25
	14.75	3.00	1.25	1.75	15.25	3.00	1.25	1.75	15.50	4.00	2.00	2.00	8.50	2.50	.....	.....	11.25	3.00	1.25	1.75
	15.75	5.00	2.75	2.25	16.25	4.25	.....	.....	16.50	5.00	3.00	2.00	.....	.....	.....	.....	.....	.....	.....	.....
	17.00	6.00	3.50	2.50	.....	.....	.....	.....	17.50	6.00	3.50	2.50	.....	.....	.....	.....	.....	.....	.....	.....
	18.75	7.00	.....	.....	.....	.....	.....	.....	19.50	7.00	4.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....
	13.25	1.00	0.25	0.75	15.00	1.00	0.25	0.75	11.75	1.00	0.25	0.75	9.25	1.00	0.00	1.00	7.75	1.00	0.00	1.00
	14.50	2.00	1.00	1.00	16.25	2.00	1.00	1.00	12.75	2.00	1.00	1.00	10.50	3.00	1.00	2.00	8.75	2.00	0.75	1.25
	15.25	3.00	1.25	1.75	17.50	4.00	2.00	2.00	13.25	3.00	1.25	1.75	11.50	4.00	2.00	2.00	9.50	3.00	1.25	1.75
	16.00	4.00	2.00	2.00	18.75	5.00	2.75	2.25	14.25	4.00	2.00	2.00	12.25	5.00	2.75	2.25	.....	.....	.....	.....
	18.00	5.00	3.25	2.75	20.50	6.00	3.25	2.75	15.00	5.00	3.00	2.00	13.25	6.00	3.25	2.75	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	15.25	5.75	.....	.....	13.75	6.75	.....	.....	.....	.....	.....	.....
	13.75	1.00	0.25	0.75	12.25	1.00	0.25	0.75	.....	.....	.....	.....	9.75	1.00	0.25	0.75	6.50	1.00	0.25	0.75
	14.75	2.00	1.00	1.00	14.25	2.00	0.75	1.25	.....	.....	.....	.....	11.25	2.00	1.00	1.00	7.00	2.00	0.75	1.25
	15.50	3.00	1.25	1.75	15.25	4.00	2.00	2.00	.....	.....	.....	.....	12.25	4.00	2.00	2.00	7.75	4.00	2.00	2.00
	.....	.....	.....	.....	16.25	5.00	3.00	2.00	.....	.....	.....	.....	13.75	6.00	3.25	2.75	.....	.....	.....	.....
	.....	.....	.....	.....	17.50	6.00	3.75	2.25	.....	.....	.....	.....	14.25	6.50	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	18.75	6.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

SOUTHDOWN.

Actual measurements in grams and millimeters.

Catalogue No. of samples ..	138.				138.				139.				139.				139.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	6.50	1.00	0.25	0.75	9.75	1.00	0.25	0.75	12.25	1.00	0.25	0.75	8.00	1.00	0.00	1.00	11.25	1.00	0.25	0.75
	10.25	2.00	0.75	1.25	11.50	2.00	1.00	1.00	13.75	2.00	1.00	1.00	10.50	2.00	0.75	1.25	13.50	2.00	1.00	1.00
	11.25	3.00	1.25	1.75	12.25	3.00	1.25	1.75	14.75	3.00	1.50	1.50	10.75	4.00	2.00	2.00	14.50	3.00	1.50	1.50
	11.50	3.25	.....	.....	.....	.....	.....	.....	16.00	4.00	2.00	2.00	11.50	5.00	3.00	2.00	15.50	5.00	3.00	2.00
	.....	.....	.....	.....	.....	.....	.....	.....	16.75	5.00	3.00	2.00	13.00	7.00	.....	.....	17.00	6.00	3.75	2.25
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18.50	7.00	4.25	2.75
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20.50	8.00	.....	.....
	7.75	1.00	0.25	0.75	7.25	1.00	0.25	0.75	12.75	1.00	0.25	0.75	5.00	1.00	0.00	1.00	13.25	1.00	0.25	0.75
	10.25	2.00	1.00	1.00	9.75	2.00	1.00	1.00	14.75	2.00	1.00	1.00	6.50	2.00	0.25	1.25	16.25	2.00	1.00	1.00
	10.75	3.00	1.25	1.75	10.50	3.00	1.25	1.75	15.25	3.00	1.50	1.50	7.75	3.75	.....	.....	17.50	4.00	2.00	2.00
	11.25	4.00	2.00	2.00	11.25	4.00	2.00	2.00	17.25	5.00	.....	.....	.....	.....	.....	.....	18.25	5.00	3.00	2.00
	12.75	6.00	3.25	2.75	11.75	5.00	2.75	2.25	.....	.....	.....	.....	.....	.....	.....	.....	19.50	6.00	3.75	2.25
	13.75	6.75	.....	.....	12.75	6.00	3.50	2.50	.....	.....	.....	.....	.....	.....	.....	.....	21.25	7.00	4.25	2.75
	.....	.....	.....	.....	14.00	7.00	4.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....	22.75	7.75	.....	.....
	.....	.....	.....	.....	14.50	7.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	10.50	1.00	0.25	0.75	9.00	1.00	0.25	0.75	12.25	1.00	0.25	0.75	6.75	1.00	0.00	1.00	14.25	1.00	0.25	0.75
	12.00	2.00	0.75	1.25	10.50	2.00	1.00	1.00	15.75	2.00	1.00	1.00	9.50	2.00	0.75	1.25	15.50	2.00	1.00	1.00
	12.50	3.00	1.25	1.75	11.50	4.00	2.00	2.00	16.75	3.00	.....	.....	11.00	3.00	1.00	2.00	16.25	3.00	1.25	1.75
	13.75	5.00	2.75	2.25	12.50	5.00	2.75	2.25	.....	.....	.....	.....	.....	.....	.....	.....	18.00	5.00	2.75	2.25
	15.00	6.00	3.25	2.75	13.25	6.00	3.50	2.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	17.00	7.00	.....	.....	14.75	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	16.75	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	10.00	1.00	0.00	1.00	.....	.....	.....	.....	13.25	1.00	0.25	0.75	14.75	1.00	0.20	1.00	13.25	1.00	0.25	0.75
	11.75	2.00	0.75	1.25	.....	.....	.....	.....	20.75	2.00	1.00	1.00	17.00	2.00	1.00	1.00	17.25	2.00	0.75	1.25
	12.75	4.00	2.00	2.00	.....	.....	.....	.....	22.25	3.00	1.75	1.25	18.51	3.00	1.25	1.75	18.50	4.00	2.00	2.00
	13.50	5.00	2.75	2.25	.....	.....	.....	.....	23.25	4.00	2.25	1.75	19.75	5.00	2.75	2.25	19.25	4.75	.....	.....
	15.25	6.00	3.25	2.75	.....	.....	.....	.....	24.50	5.00	3.00	2.00	21.25	6.00	.....	.....	.....	.....	.....	.....
	15.75	6.50	.....	.....	.....	.....	.....	.....	26.00	6.00	3.75	2.25	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	27.25	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

SOUTHDOWN.

Catalogue No. of samples..	130.				140.				140.				140.				140.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	13.25	1.00	0.25	0.75	8.50	1.00	0.25	0.75	10.25	1.00	0.25	0.75	11.25	1.00	0.25	0.75	8.75	1.00	0.75	0.25
	15.50	2.00	1.00	1.00	11.75	2.00	1.00	1.00	12.50	2.00	1.00	1.00	13.25	2.00	1.00	1.00	10.00	2.00	1.00	1.00
	17.00	4.00	2.00	2.00	14.25	3.00	1.25	1.75	13.50	3.00	1.50	1.50	14.75	3.00	.....	.....	10.50	3.00	1.25	1.75
	18.00	4.75	.....	.....	12.25	5.00	2.75	2.25	14.50	4.00	2.00	2.00	.....	.....	.....	.....	11.25	4.00	2.00	2.00
	.....	.....	.....	.....	13.50	5.75	.....	.....	15.00	5.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	10.75	1.00	0.00	1.00	11.50	1.00	0.25	0.75	5.50	1.00	0.00	1.00	6.75	1.00	0.25	0.75	9.00	1.00	0.00	1.00
	15.25	2.00	0.75	1.25	13.50	2.00	0.75	1.25	7.50	2.00	1.00	1.00	8.00	2.00	1.00	1.00	13.25	2.00	0.75	1.25
	15.50	4.00	2.00	2.00	14.50	3.00	1.50	1.50	8.25	3.00	1.25	1.75	8.50	3.00	1.50	1.50	14.25	3.00	1.25	1.75
	16.50	5.00	.....	.....	15.00	4.00	2.00	2.00	9.50	5.00	3.00	2.00	9.25	5.00	2.75	2.25	15.00	4.00	2.00	2.00
	.....	.....	.....	.....	.....	.....	.....	.....	11.00	7.00	4.00	3.00	.....	.....	.....	.....	17.50	5.00	2.75	2.25
	11.75	1.00	0.25	0.75	9.50	1.00	0.25	0.75	12.00	1.00	0.25	0.75	12.25	1.00	0.25	0.75	12.50	1.00	0.00	1.00
	14.50	2.00	1.00	1.00	11.75	2.00	1.00	1.00	14.75	2.00	1.00	1.00	14.25	2.00	1.00	1.00	13.75	2.00	0.75	1.25
	15.50	4.00	2.00	2.00	13.75	2.75	.....	.....	15.50	3.00	1.50	1.50	14.50	3.00	.....	.....	14.75	3.00	1.25	1.75
	16.00	5.00	3.00	2.00	.....	.....	.....	.....	16.50	4.00	2.00	2.00	.....	.....	.....	.....	15.50	4.00	2.00	2.00
	.....	.....	.....	.....	.....	.....	.....	.....	17.50	5.00	3.00	2.00	.....	.....	.....	.....	16.75	5.00	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	18.75	6.00	3.75	2.25	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	20.75	6.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	12.75	1.00	0.50	0.50	6.50	1.00	0.25	0.75	12.00	1.00	0.25	0.75	.....	.....	.....	.....
	.....	.....	.....	.....	16.00	2.00	1.00	1.00	8.25	2.00	0.75	1.25	13.50	2.00	1.00	1.00	.....	.....	.....	.....
	.....	.....	.....	.....	17.00	3.00	1.50	1.50	9.00	2.25	.....	.....	14.50	3.25	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	18.25	4.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Actual measurements in grams and millimeters.

SOUTHDOWN.

Catalogue No. of samples..	141.				141.				141.				141.				142.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	13.75	1.00	0.25	0.75	14.75	1.00	0.25	0.75	15.25	1.00	0.25	0.75	11.50	1.00	0.25	0.75	10.25	1.00	0.25	0.75
	14.75	2.00	0.75	1.25	17.50	2.00	1.00	1.00	22.00	2.00	1.00	1.00	15.25	2.00	0.75	1.25	11.25	2.00	1.00	1.00
	15.50	3.00	1.00	2.00	19.00	3.00	1.25	1.75	22.75	3.00	1.50	1.50	16.00	3.00	1.00	2.00	12.25	4.00	2.00	2.00
	16.75	5.00	2.50	2.50	23.00	4.00	2.00	2.00	25.50	4.00	.....	.....	.....	.....	.....	.....	13.25	5.00	3.00	2.00
	19.50	6.00	.....	.....	21.75	5.00	2.75	2.25	.....	.....	.....	.....	.....	.....	.....	.....	14.75	6.75	.....	.....
	.....	.....	.....	.....	23.75	5.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	19.50	1.00	0.25	0.75	16.50	1.00	0.25	0.75	9.25	1.00	0.25	0.75	11.50	1.00	0.25	0.75	7.25	1.00	0.00	1.00
	22.50	2.00	1.00	1.00	19.00	2.00	0.75	1.25	11.00	2.00	0.75	1.25	13.50	2.00	1.00	1.00	8.50	2.00	0.75	1.25
	24.00	3.00	1.25	1.75	20.25	3.00	1.25	1.75	12.00	3.00	1.00	2.00	14.00	3.00	1.25	1.75	9.50	3.00	.....	.....
	24.75	4.00	2.00	2.00	21.50	4.00	2.00	2.00	.....	.....	.....	.....	15.50	5.00	2.75	2.25	.....	.....	.....	.....
	26.75	5.00	2.75	2.25	22.50	5.00	2.75	2.25	.....	.....	.....	.....	17.00	6.00	3.25	2.75	.....	.....	.....	.....
	29.50	6.00	3.25	2.75	25.00	6.00	3.50	2.50	.....	.....	.....	.....	19.25	7.00	4.00	3.00	.....	.....	.....	.....
	.....	.....	.....	.....	28.00	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	8.00	1.00	0.25	0.75	12.00	1.00	0.25	0.75	14.75	1.00	0.25	0.75	14.00	1.00	0.25	0.75	8.00	1.00	0.25	0.75
	10.25	2.00	1.00	1.00	15.75	2.00	1.00	1.00	17.00	2.00	0.75	1.25	20.25	2.00	0.75	1.25	9.00	2.00	1.00	1.00
	11.50	2.75	.....	.....	16.75	3.00	1.25	1.75	17.75	3.00	1.00	2.00	22.00	3.00	1.00	2.00	10.00	4.00	2.00	2.00
	.....	.....	.....	.....	17.75	4.00	2.00	2.00	18.75	4.00	2.00	2.00	23.50	4.00	2.00	2.00	10.75	5.00	3.00	2.00
	.....	.....	.....	.....	18.75	5.00	2.75	2.25	19.75	5.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	18.25	1.00	0.25	0.75	12.75	1.00	0.25	0.75	14.50	1.00	0.25	0.75	.....	.....	.....	.....	11.75	1.00	0.00	1.00
	22.00	2.00	0.75	1.25	16.00	2.00	0.75	1.25	17.50	2.00	1.00	1.00	.....	.....	.....	.....	12.50	2.00	0.75	1.25
	23.00	3.00	1.25	1.75	16.50	2.75	.....	.....	19.00	3.00	1.25	1.75	.....	.....	.....	.....	13.50	3.00	.....	.....
	24.75	4.00	2.00	2.00	.....	.....	.....	.....	20.75	4.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	26.00	4.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Actual measurements in grams and millimeters.

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

SOUTHDOWN.

Catalogue No. of samples..	142.				142.				142.				143.				143.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	5.00	1.00	0.00	1.00	4.50	1.00	0.75	0.25	6.25	1.00	0.00	1.00	12.50	1.00	0.25	0.75	16.25	1.00	0.25	0.75
	8.00	2.00	0.75	1.25	8.75	2.00	1.00	1.00	8.25	2.00	0.75	1.25	14.50	2.00	1.00	1.00	18.00	2.00	1.00	1.00
	10.75	3.00	1.00	1.00	9.50	3.00	.....	.....	9.25	3.00	1.00	2.00	15.50	3.00	1.25	1.75	19.50	3.00	1.25	1.75
	.....	.....	.....	.....	.....	.....	.....	.....	10.25	4.00	2.00	2.00	16.50	4.00	2.00	2.00	20.50	4.00	2.00	2.00
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17.25	5.00	3.00	2.00	22.25	5.00	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18.50	6.00	.....	.....	.....	.....	.....	.....
	8.50	1.00	0.00	1.00	5.50	1.00	0.00	1.00	8.50	1.00	0.00	1.00	17.50	1.00	0.25	0.75	8.75	1.00	0.25	0.75
	10.50	3.00	1.25	1.75	7.75	2.00	0.75	1.25	11.00	2.00	0.75	1.25	20.50	2.00	0.75	1.25	14.75	2.00	1.00	1.00
	11.50	4.00	2.00	2.00	8.25	3.00	1.00	2.00	12.00	4.00	.....	.....	22.00	3.00	1.25	1.75	15.75	3.00	1.25	1.75
	12.50	5.00	3.00	2.00	9.00	4.00	2.00	2.00	.....	.....	.....	.....	.....	.....	.....	.....	16.75	3.75	.....	.....
	13.50	6.00	.....	.....	10.75	5.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	14.50	1.00	0.25	0.75	6.25	1.00	0.00	1.00	10.00	1.00	0.00	1.00	15.50	1.00	0.00	1.00	17.75	1.00	0.25	0.75
	15.25	2.00	0.75	1.25	7.50	2.00	0.75	1.25	13.75	2.00	0.75	1.25	17.75	2.00	1.00	1.00	18.50	2.00	1.00	1.00
	16.50	4.00	2.00	2.00	8.50	4.00	2.00	2.00	16.50	3.00	1.00	2.00	19.00	3.00	1.25	1.75	19.50	3.00	1.50	1.50
	17.50	5.00	2.75	2.25	9.25	5.00	2.75	2.25	18.50	4.00	2.00	2.00	21.25	5.00	3.00	2.00	20.75	4.00	2.00	2.00
	19.50	6.00	3.50	2.50	10.00	6.00	3.50	2.50	21.00	4.75	.....	.....	.....	.....	.....	.....	22.25	5.00	3.00	2.00
	21.75	7.00	4.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	23.50	6.00	3.50	2.50
	22.00	7.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	25.25	6.75	.....	.....
	9.00	1.00	0.25	0.75	5.75	1.00	0.25	0.75	.....	.....	.....	.....	16.25	1.00	0.25	0.75	9.75	1.00	0.25	0.75
	10.25	2.00	1.00	1.00	8.50	2.00	0.75	1.25	.....	.....	.....	.....	18.25	2.00	1.00	1.00	13.25	2.00	1.00	1.00
	11.25	4.00	2.00	2.00	9.50	3.00	.....	.....	.....	.....	.....	.....	18.50	2.75	.....	.....	14.25	3.00	.....	.....
	11.75	5.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

SOUTHDOWN.

Catalogue No. of samples..	143.				143.				144.				144.				144.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	14.75	1.00	0.25	0.75	15.00	1.00	0.25	0.75	7.50	1.00	0.00	1.00	11.00	1.00	0.00	1.00	11.25	1.00	0.00	1.00
	18.25	2.00	1.00	1.00	17.75	2.00	1.00	1.00	11.25	2.00	0.50	1.50	12.50	2.00	1.00	1.00	12.50	3.00	1.25	1.75
	19.50	3.00	1.25	1.75	18.75	3.00	1.50	1.50	13.75	3.00	1.00	2.00	13.50	3.00	.....	.....	13.25	4.00	2.00	2.00
	20.25	4.00	.....	.....	20.25	4.00	2.00	2.00	16.50	3.75	.....	.....	.....	.....	.....	.....	14.00	5.00	2.75	2.25
	.....	.....	.....	.....	21.75	5.00	3.00	2.00	.....	.....	.....	.....	.....	.....	.....	.....	15.25	6.00	3.25	2.75
	.....	.....	.....	.....	22.75	6.00	3.50	2.50	.....	.....	.....	.....	.....	.....	.....	.....	16.00	6.75	.....	.....
	.....	.....	.....	.....	25.50	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	25.50	7.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	16.00	1.00	0.00	1.00	20.50	1.00	0.25	0.75	12.75	1.00	0.25	0.75	13.50	1.00	0.25	0.75	12.50	1.00	0.25	0.75
	18.50	2.00	1.00	1.00	23.25	2.00	1.00	1.00	15.00	2.00	1.00	1.00	15.00	2.00	0.75	1.25	14.00	2.00	0.75	1.25
	19.50	3.00	1.25	1.75	25.25	3.00	1.25	1.75	16.00	3.00	1.25	1.75	16.50	4.00	2.00	2.00	15.00	4.00	2.00	2.00
	20.75	4.00	2.00	2.00	.....	.....	.....	.....	17.00	3.75	.....	.....	17.50	5.00	2.75	2.25	.....	.....	.....	.....
	22.25	5.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18.75	6.00	3.25	2.75	.....	.....	.....	.....
	14.25	1.00	0.25	0.75	9.25	1.00	0.00	1.00	8.50	1.00	0.25	0.75	12.50	1.00	0.25	0.75	9.50	1.00	0.25	0.75
	17.50	2.00	1.00	1.00	11.75	2.00	0.75	1.25	11.75	2.00	0.75	1.25	15.00	2.00	1.00	1.00	10.75	2.00	0.75	1.25
	18.00	3.00	1.25	1.75	12.50	3.00	1.25	1.75	14.50	3.00	1.00	2.00	16.75	4.00	2.00	2.00	11.25	3.00	1.00	2.00
	19.75	4.00	2.00	2.00	13.25	4.00	2.00	2.00	17.25	4.00	.....	.....	18.25	5.00	3.00	2.00	12.50	5.00	.....	.....
	21.50	5.00	2.75	2.25	15.75	5.75	.....	.....	.....	.....	.....	.....	19.25	6.00	3.75	2.25	.....	.....	.....	.....
	23.75	6.00	3.50	2.50	.....	.....	.....	.....	.....	.....	.....	.....	22.00	7.00	.....	.....	.....	.....	.....	.....
	24.00	6.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	9.50	1.00	0.25	0.75	.....	.....	.....	.....	10.75	1.00	0.25	0.75	10.75	1.00	0.25	0.75	10.75	1.00	0.00	1.00
	12.50	2.00	1.00	1.00	.....	.....	.....	.....	11.75	2.00	1.00	1.00	12.25	2.00	1.00	1.00	11.50	2.00	0.50	1.50
	13.75	3.00	1.25	1.75	.....	.....	.....	.....	13.00	4.00	.....	.....	12.75	3.00	1.25	1.75	12.25	3.00	1.00	2.00
	14.50	4.00	2.00	2.00	.....	.....	.....	.....	.....	.....	.....	.....	13.75	4.00	.....	.....	13.50	5.00	2.25	2.75
	15.75	5.00	3.00	2.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15.50	6.00	3.25	2.75
	17.25	6.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16.50	7.00	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

SOUTHDOWN.

Actual measurements in grams and millimeters.

Catalogue No. of samples..	144.				145.				145.				145.				145.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	5.75	1.00	0.00	1.00	11.75	1.00	0.25	0.75	11.25	1.00	0.25	0.75	8.50	1.00	0.25	0.75	14.75	1.00	0.25	0.75
	7.50	2.00	0.50	1.50	13.75	2.00	1.00	1.00	12.75	2.00	1.00	1.00	10.50	2.00	1.00	1.00	16.25	2.00	1.00	1.00
	8.75	4.00	1.75	2.25	14.75	3.00	1.25	1.75	13.25	3.00	1.25	1.75	11.00	3.00	1.25	1.75	20.50	3.00	1.50	1.50
	9.50	5.00	.....	.....	15.50	4.00	2.00	2.00	14.00	5.00	2.75	2.25	12.25	5.00	2.75	2.25	21.50	4.00	.....	.....
	.....	.....	.....	.....	16.50	5.00	3.00	2.00	15.50	6.00	.....	.....	11.25	6.00	3.25	2.75	.....	.....	.....	.....
	.....	.....	.....	.....	17.75	6.00	3.25	2.75	.....	.....	.....	.....	13.75	7.00	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	19.25	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	13.75	1.00	0.00	1.00	14.50	1.00	0.75	0.25	10.75	1.00	0.25	0.75	9.75	1.00	0.00	1.00	15.50	1.00	0.00	1.00
	15.25	2.00	0.75	1.25	15.50	2.00	1.00	1.00	13.00	2.00	1.00	1.00	10.25	2.00	0.50	1.50	16.75	2.00	0.75	1.25
	16.00	3.00	1.25	1.75	16.50	4.00	2.00	2.00	13.75	4.00	2.00	2.00	11.25	4.00	1.75	2.25	18.25	3.00	1.25	1.75
	17.25	5.00	2.25	2.75	17.25	5.00	2.75	2.25	14.50	5.00	2.50	2.50	12.00	5.00	2.25	2.75	19.25	4.00	2.00	2.00
	18.00	6.00	3.25	2.75	18.50	6.00	3.25	2.75	15.75	6.00	3.25	2.75	13.25	6.00	.....	.....	21.75	6.00	3.25	2.75
Actual measurements in grams and millimeters.	19.50	6.75	.....	.....	21.75	7.00	4.00	3.00	17.75	7.00	4.00	3.00	.....	.....	.....	.....	24.75	7.00	4.00	3.00
	.....	.....	.....	.....	22.50	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	25.75	7.00	.....	.....
	9.00	1.00	0.25	0.75	9.75	1.00	0.25	0.75	12.00	1.00	0.25	0.75	13.00	1.00	0.00	1.00	10.50	1.00	0.25	0.75
	11.75	2.00	1.00	1.00	11.00	2.00	1.00	1.00	13.75	2.00	1.00	1.00	14.50	2.00	0.75	1.25	11.25	2.00	1.00	1.00
	12.50	3.00	1.25	1.75	12.25	4.00	2.00	2.00	14.00	2.25	.....	.....	15.25	3.00	1.25	1.75	12.00	4.00	2.00	2.00
	13.25	4.00	2.00	2.00	13.25	6.00	.....	.....	.....	.....	.....	.....	16.25	4.00	2.00	2.00	13.75	6.00	3.25	2.75
	13.75	4.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17.25	5.00	.....	.....	13.75	6.25	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	6.25	1.00	0.00	1.00	10.50	1.00	0.00	1.00	12.75	1.00	0.25	0.75	.....	.....	.....	.....
	.....	.....	.....	.....	7.75	2.00	1.00	1.00	11.25	2.00	1.00	1.00	14.25	2.00	1.00	1.00	.....	.....	.....	.....
	.....	.....	.....	.....	8.25	3.00	1.25	1.75	12.25	4.00	2.00	2.00	15.00	3.00	1.25	1.75	.....	.....	.....	.....
	.....	.....	.....	.....	8.75	4.00	2.00	2.00	14.75	6.00	3.00	3.00	16.50	5.00	2.75	2.25	.....	.....	.....	.....
	.....	.....	.....	.....	9.75	6.00	.....	.....	14.25	6.50	.....	.....	17.75	6.00	3.25	2.75	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	19.50	7.00	4.00	3.00	.....	.....	.....	.....

SOUTHDOWN.

Actual measurements in grams and millimeters.

Catalogue No. of samples..	146.				146.				146.				146.				147.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	9.25	1.00	0.25	0.75	9.50	1.00	0.25	0.75	11.25	1.00	0.25	0.75	13.50	1.00	0.00	1.00	10.75	1.00	0.25	0.75
	13.25	2.00	1.00	1.00	10.50	2.00	0.75	1.25	12.75	2.00	0.75	1.25	15.75	2.00	0.50	1.50	13.25	2.00	1.00	1.00
	14.25	4.00	2.00	2.00	11.25	3.00	.....	.....	13.50	3.00	1.25	1.75	16.25	3.00	1.00	2.00	13.25	3.00	.....	.....
	15.75	6.00	3.50	2.50	.....	.....	.....	.....	14.50	4.00	2.00	2.00	17.25	4.00	2.00	2.00	.....	.....	.....	.....
	17.50	7.00	4.00	3.00	.....	.....	.....	.....	15.75	6.00	3.25	2.75	18.25	5.00	2.75	2.25	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	20.00	6.00	3.25	2.75	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21.50	6.75	.....	.....	.....	.....	.....	.....
	8.25	1.00	0.00	1.00	12.00	1.00	0.25	0.75	12.00	1.00	0.25	0.75	12.00	1.00	0.25	0.75	11.25	1.00	0.25	0.75
	10.50	2.00	0.50	1.50	14.50	2.00	1.00	1.00	13.50	2.00	0.75	1.25	13.00	2.00	0.75	1.25	14.50	2.00	1.00	1.00
	11.25	4.00	2.00	2.00	15.25	3.00	1.25	1.75	15.00	4.00	2.00	2.00	14.25	4.00	2.00	2.00	14.25	3.00	1.25	1.75
	12.50	6.00	3.25	2.75	16.75	5.00	2.75	2.25	16.00	5.00	2.75	2.25	15.50	5.00	.....	.....	15.00	4.00	2.00	2.00
Actual measurements in grams and millimeters.	14.75	7.00	.....	.....	18.25	6.00	3.25	2.75	17.50	5.75	.....	.....	.....	.....	.....	.....	16.50	6.00	3.25	2.75
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	18.75	7.00	.....	.....
	10.50	1.00	0.00	1.00	8.75	1.00	0.00	1.00	10.75	1.00	0.00	1.00	10.25	1.00	0.50	1.00	10.50	1.00	0.25	0.75
	12.50	2.00	0.50	1.50	11.75	2.00	0.75	1.25	11.25	2.00	0.50	1.50	11.00	2.00	1.00	2.00	12.50	2.00	1.00	1.00
	13.25	3.00	1.00	2.00	12.50	3.00	1.00	2.00	12.25	4.00	1.75	2.25	12.25	4.00	2.00	2.00	13.25	3.00	1.25	1.75
	13.75	4.00	.....	.....	13.50	4.00	2.00	2.00	13.00	5.00	2.75	2.25	13.75	6.00	.....	.....	14.25	5.00	2.75	2.25
	.....	.....	.....	.....	14.75	5.00	2.25	2.75	14.50	6.00	.....	.....	.....	.....	.....	.....	15.75	6.00	3.25	2.75
	.....	.....	.....	.....	16.25	6.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	12.75	1.00	0.25	0.75	7.75	1.00	0.00	1.00	11.75	1.00	0.25	0.75	.....	.....	.....	.....	7.75	1.00	0.00	1.00
	14.00	2.00	0.75	1.25	8.50	2.00	0.75	1.25	12.75	2.00	0.75	1.25	.....	.....	.....	.....	9.00	3.00	1.25	1.75
	15.25	4.00	2.00	2.00	9.25	4.00	1.75	2.25	13.75	4.00	2.00	2.00	.....	.....	.....	.....	9.75	4.00	2.00	2.00
	17.25	6.00	3.00	3.00	10.75	6.00	3.00	3.00	14.75	5.00	2.75	2.25	.....	.....	.....	.....	10.50	5.00	2.75	2.25
	19.75	7.00	4.00	3.00	12.50	7.00	4.00	3.00	16.00	5.25	.....	.....	.....	.....	.....	.....	11.50	6.00	3.25	2.75

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

SOUTHDOWN.

Catalogue No. of samples ..	147.				147.				147.				148.				148.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	9.50	1.00	0.25	0.75	11.25	1.00	0.00	1.00	9.25	1.00	0.25	0.75	11.25	1.00	0.25	0.75	9.75	1.00	0.25	0.75
	11.25	2.00	1.00	1.00	12.25	2.00	0.75	1.25	10.50	2.00	0.75	1.25	12.25	2.00	0.75	1.25	12.75	2.00	1.00	1.00
	12.25	3.00	.....	.....	13.25	3.50	.....	.....	11.50	3.00	1.00	2.00	13.00	3.00	.....	.....	13.50	3.00	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	12.75	5.00	2.75	2.25	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	13.75	6.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	14.50	1.00	0.00	1.00	11.00	1.00	0.00	1.00	11.75	1.00	0.25	0.75	7.50	1.00	0.00	1.00	9.75	1.00	0.25	0.75
	16.00	2.00	0.75	1.25	14.75	2.00	0.75	1.25	14.00	2.00	1.00	1.00	8.50	2.00	1.00	1.00	12.25	2.00	1.00	1.00
	16.50	3.00	1.25	1.75	16.00	3.00	1.00	2.00	15.50	3.00	1.25	1.75	9.25	3.00	1.25	1.75	13.25	3.00	1.50	1.50
	17.50	4.00	2.00	2.00	17.00	4.00	2.00	2.00	16.00	4.00	2.00	2.00	10.25	5.00	2.75	2.25	14.25	4.25	.....	.....
	18.25	5.00	2.75	2.25	18.50	4.75	.....	.....	17.00	5.00	2.75	2.25	.....	.....	.....	.....	.....	.....	.....	.....
	19.75	6.00	3.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	23.25	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	12.25	1.00	0.25	0.75	10.50	1.00	0.00	1.00	11.50	1.00	0.25	0.75	7.75	1.00	0.25	0.75	14.00	1.00	0.25	0.75
	14.50	2.00	0.75	1.25	12.00	2.00	0.75	1.25	13.75	2.00	1.00	1.00	11.25	2.00	1.00	1.00	15.25	2.00	1.00	1.00
	15.25	3.00	1.25	1.75	12.75	3.00	1.25	1.75	14.50	3.00	1.25	1.75	12.50	3.00	.....	.....	16.00	3.00	1.25	1.75
	16.25	4.00	2.00	2.00	13.25	4.00	2.00	2.00	15.50	4.00	2.00	2.00	.....	.....	.....	.....	17.50	5.00	2.75	2.25
	.....	.....	.....	.....	14.50	5.00	2.75	2.25	16.50	5.00	.....	.....	.....	.....	.....	.....	19.75	6.00	3.25	2.75
	.....	.....	.....	.....	15.50	6.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	21.50	7.00	.....	.....
	8.50	1.00	0.25	0.75	9.50	1.00	0.00	1.00	.....	.....	.....	.....	8.25	1.00	0.25	0.75	10.25	1.00	0.25	0.75
	10.50	2.00	0.75	1.25	10.50	2.00	0.50	1.50	.....	.....	.....	.....	11.00	2.00	0.75	1.25	11.75	2.00	0.75	1.25
	11.75	4.00	2.00	2.00	11.25	3.00	1.25	1.75	.....	.....	.....	.....	11.75	3.00	1.25	1.75	12.50	3.00	1.25	1.75
	12.50	5.00	2.75	2.25	12.50	5.00	2.75	2.25	.....	.....	.....	.....	12.25	4.00	2.00	2.00	13.50	5.00	2.75	2.25
	13.75	6.00	.....	.....	13.75	6.00	3.25	2.75	.....	.....	.....	.....	13.25	5.00	.....	.....	14.25	5.50	.....	.....
	.....	.....	.....	.....	15.00	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

SOUTHDOWN. HAMPSHIRE.

Catalogue No. of samples ..	148.				148.				163.				163.				163.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	8.25	1.00	0.25	0.75	7.50	1.00	0.25	0.75	9.75	1.00	0.25	0.75	13.25	1.00	0.25	0.75	12.75	1.00	0.25	0.75
	10.50	2.00	0.75	1.25	9.25	2.00	1.00	1.00	13.75	2.00	1.00	1.00	17.00	2.00	0.75	1.25	16.50	2.00	1.00	1.00
	11.50	2.75	.....	.....	10.00	3.00	1.50	1.50	15.00	3.00	.....	.....	17.75	3.00	1.50	1.50	17.00	3.00	1.25	1.75
	.....	.....	.....	.....	11.25	4.50	.....	.....	.....	.....	.....	.....	18.00	3.50	.....	.....	18.00	4.00	.....	.....
	10.75	1.00	0.25	0.75	7.50	1.00	0.25	0.75	11.25	1.00	0.25	0.75	12.25	1.00	0.25	0.75	11.50	1.00	0.25	0.75
	12.00	2.00	0.75	1.25	11.00	2.00	1.00	1.00	16.50	2.00	1.00	1.00	15.00	2.00	1.00	1.00	17.75	2.00	1.00	1.00
	12.75	3.00	1.25	1.75	11.50	3.00	1.25	1.75	17.50	3.00	1.25	1.75	16.25	3.00	1.25	1.75	19.25	3.00	1.50	1.50
	.....	.....	.....	.....	12.00	4.00	.....	.....	18.00	3.75	.....	.....	18.75	4.25	.....	.....	20.25	4.00	2.00	2.00
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	23.75	6.00	3.25	2.75
	9.75	1.00	0.25	0.75	7.25	1.00	0.25	0.75	9.75	1.00	0.25	0.75	11.75	1.00	0.25	0.75	11.75	1.00	0.25	0.75
	11.75	2.00	1.00	1.00	8.75	2.00	0.75	1.25	14.75	2.00	0.75	1.25	16.75	2.00	0.75	1.25	16.50	2.00	0.75	1.25
	13.00	2.75	.....	.....	9.50	3.00	1.25	1.75	17.00	2.75	.....	.....	18.75	2.75	.....	.....	18.00	3.00	.....	.....
	10.50	1.00	0.25	0.75	.....	.....	.....	.....	9.50	1.00	0.25	0.75	10.75	1.00	0.25	0.75	12.50	1.00	0.50	0.50
	12.50	2.00	1.00	1.00	.....	.....	.....	.....	12.75	2.00	0.75	1.25	15.25	2.00	1.00	1.00	16.50	2.00	1.00	1.00
	13.75	2.75	.....	.....	.....	.....	.....	.....	13.50	3.00	1.25	1.75	17.25	3.00	1.50	1.50	18.75	4.00	2.00	2.00
	.....	.....	.....	.....	.....	.....	.....	.....	14.00	3.75	.....	.....	18.00	4.00	.....	.....	20.50	4.75	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

HAMPSHIRE.

Catalogue No. of samples ..

163.				163.				163.				163.				163.			
Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent strain.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
10.75	1.00	0.25	0.75	8.50	1.00	0.25	0.75	13.50	1.00	0.25	0.75	12.25	1.00	0.25	0.75	14.25	1.00	0.25	0.75
16.25	2.00	0.75	1.25	10.50	2.00	1.00	1.00	16.00	2.00	1.00	1.00	14.75	2.00	1.00	1.00	17.50	2.00	1.00	1.00
17.75	3.00	1.00	2.00	11.50	3.00	1.25	1.75	17.25	4.00	2.25	1.75	16.25	3.00	1.25	1.75	19.00	3.00	1.50	1.50
.....	.....	.....	.....	12.50	4.00	2.00	2.00	18.75	6.00	3.75	2.25	.....	.....	.....	.....	20.00	3.50	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	20.00	9.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16.25	1.00	0.25	0.75	15.50	1.00	0.25	0.75	13.25	1.00	0.50	0.50	12.75	1.00	0.25	0.75	11.50	1.00	0.00	1.00
19.50	2.00	1.00	1.00	19.50	2.00	1.00	1.00	19.00	2.00	1.00	1.00	17.50	2.00	1.00	1.00	15.75	2.00	0.75	1.25
21.50	3.00	1.25	1.75	20.75	3.00	1.75	1.25	18.50	3.00	1.75	1.25	18.25	2.50	.....	.....	17.75	3.00	1.00	2.00
23.25	4.00	2.00	2.00	21.50	4.00	2.00	2.00	19.75	4.00	2.25	1.75	.....	.....	.....	.....	19.25	4.00	1.75	2.25
24.25	5.00	3.00	2.00	22.50	5.00	3.00	2.00	22.00	6.00	3.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....
27.50	7.00	.....	.....	24.50	6.00	3.50	2.50	23.25	6.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	27.00	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10.50	1.00	0.25	0.75	13.50	1.00	0.25	0.75	7.75	1.00	0.25	0.75	10.50	1.00	0.25	0.75	.....	.....	.....	.....
15.25	2.00	0.75	1.25	15.75	2.00	1.00	1.00	10.75	2.00	0.75	1.25	15.25	2.00	1.00	1.00	.....	.....	.....	.....
18.00	3.00	.....	.....	16.50	3.00	1.50	1.50	12.25	3.00	1.00	2.00	17.00	3.00	1.25	1.75	.....	.....	.....	.....
.....	.....	.....	.....	17.50	4.00	2.00	2.00	14.25	4.00	1.75	2.25	18.00	4.00	2.00	2.00	.....	.....	.....	.....
.....	.....	.....	.....	18.25	5.00	2.75	2.25	.....	.....	.....	.....	19.50	5.00	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	19.50	6.00	3.50	2.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	21.50	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10.50	1.00	0.25	0.75	8.75	1.00	0.25	0.75	13.25	1.00	0.25	0.75	14.00	1.00	0.25	0.75	.....	.....	.....	.....
12.00	2.00	1.00	1.00	14.00	2.00	0.75	1.25	16.75	2.00	1.00	1.00	17.00	2.00	1.00	1.00	.....	.....	.....	.....
13.00	3.00	.....	.....	15.50	3.00	1.25	1.75	17.00	2.50	.....	.....	18.00	3.00	1.25	1.75	.....	.....	.....	.....
.....	.....	.....	.....	16.50	4.00	2.00	2.00	.....	.....	.....	.....	19.25	4.00	2.25	1.75	.....	.....	.....	.....
.....	.....	.....	.....	17.75	5.00	.....	.....	.....	.....	.....	.....	20.25	5.00	3.00	2.00	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	25.25	6.00	.....	.....	.....	.....	.....	.....

Actual measurements in grams and millimeters.

OXFORDDOWN.

Catalogue No. of samples ..

150.				150.				150.				150.				150.			
Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
17.25	1.00	0.75	0.25	18.25	1.00	0.50	0.50	25.50	1.00	0.25	0.75	35.75	1.00	0.25	0.75	38.00	1.00	0.25	0.75
28.00	2.00	1.00	1.00	22.00	3.25	1.50	1.75	31.25	2.25	1.00	1.25	43.00	2.00	1.00	1.00	42.00	3.50	1.75	1.75
31.25	4.00	2.25	1.75	.....	.....	.....	.....	33.00	4.00	2.00	2.00	45.00	4.25	2.25	2.00	47.00	5.00	2.50	2.50
35.00	6.00	3.75	2.25	.....	.....	.....	.....	37.25	6.00	3.75	2.25	46.50	6.00	3.50	2.50	51.00	6.00	4.00	2.00
35.25	8.50	Ruptured.		.....	.....	.....	.....	40.00	7.00	4.25	2.75	50.00	9.00	7.00	2.00	55.00	7.00	4.00	3.00
.....	.....	.....	.....	.....	.....	.....	.....	47.00	8.00	5.00	3.00	55.00	14.00	11.00	3.00	59.00	8.00	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	60.00	15.00	11.75	3.25	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	63.00	16.00	.....	.....	.....	.....	.....	.....
32.00	1.00	0.25	0.75	28.50	1.00	0.25	0.75	33.00	1.00	0.25	0.75	40.00	1.00	0.00	1.00	31.25	1.00	0.00	1.00
31.25	2.50	1.00	1.50	32.25	3.00	0.75	1.25	40.00	5.00	2.50	2.50	45.00	3.00	0.75	2.25	35.00	3.00	1.25	1.75
35.25	4.25	2.25	2.00	35.75	5.00	2.75	2.25	43.75	6.25	4.00	2.25	47.00	4.25	.....	.....	37.25	5.00	3.00	2.00
40.00	5.25	3.00	2.25	42.00	6.75	4.00	2.75	47.00	7.00	4.25	2.75	.....	.....	.....	.....	41.00	6.00	4.00	2.00
45.00	6.00	.....	.....	46.75	7.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	47.00	7.00	4.50	2.50
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	52.50	8.25	.....	.....
34.00	1.00	0.25	0.75	26.25	2.00	1.00	1.00	35.00	1.00	0.00	1.00	28.50	1.00	0.25	0.75	45.00	1.00	0.25	0.75
37.25	3.25	1.75	1.50	35.25	5.00	3.00	2.00	41.50	3.00	2.00	1.00	34.75	2.00	1.00	1.00	47.00	3.00	1.50	1.50
42.25	5.00	2.75	2.25	38.00	6.50	3.75	2.25	46.00	5.00	2.25	2.75	36.75	4.00	2.00	2.00	50.00	5.00	3.00	2.00
46.75	6.00	3.75	2.25	43.50	7.00	4.00	3.00	53.50	6.00	.....	.....	41.00	6.00	3.50	2.50	54.00	6.00	.....	.....
51.25	7.00	4.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....	46.00	7.00	4.25	2.75	.....	.....	.....	.....

Actual measurements in grams and millimeters.

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

OXFORDDOWN.

Catalogue No. of samples..	150.				150.				150.				150.				150.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	20.75	1.00	0.25	0.75	39.00	1.00	0.00	1.00	33.75	1.00	0.25	0.75	31.75	1.00	0.25	0.75	24.25	1.00	0.25	0.75
	23.50	2.50	1.25	1.25	44.00	3.50	1.75	1.75	39.25	2.00	1.00	1.00	35.25	3.00	1.50	1.50	28.50	4.00	2.00	2.00
	25.00	4.00	2.50	1.50	49.50	6.00	3.50	2.50	42.25	4.00	2.00	2.00	38.50	4.50	.....	.....	32.00	5.50	3.00	2.50
	28.75	6.00	3.25	2.75	56.50	7.00	.....	.....	43.25	5.00	3.00	2.00	.....	.....	.....	.....	35.00	6.50	4.00	2.50
	31.59	7.00	4.25	2.75	.....	.....	.....	.....	0.00	7.00	4.00	3.00	.....	.....	.....	.....	40.00	7.50	.....	.....
	35.00	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	36.75	1.00	0.25	0.75	39.00	1.00	0.25	0.75	29.75	1.00	0.25	0.75	38.00	1.00	0.25	0.75	19.00	1.00	0.00	1.00
	40.00	2.50	1.00	1.00	43.00	3.00	1.25	1.75	37.50	4.00	2.00	2.00	43.75	2.50	1.00	1.50	19.00	4.00	1.75	2.25
	43.00	5.00	3.00	2.00	46.00	5.00	2.75	2.25	41.00	5.75	3.25	2.50	45.00	4.00	2.00	2.00	24.25	7.00	.....	.....
	47.00	6.00	3.50	2.50	50.00	6.00	4.00	2.00	45.00	6.25	4.00	2.25	47.00	5.00	2.50	2.50	.....	.....	.....	.....
	52.00	7.00	4.00	3.00	.....	.....	.....	.....	50.00	7.00	4.25	2.75	51.00	6.00	3.50	2.50	.....	.....	.....	.....
	55.00	7.75	.....	.....	.....	.....	.....	.....	55.00	8.00	5.00	3.00	53.00	7.00	.....	.....	.....	.....	.....	.....
	29.00	1.00	0.00	1.00	23.50	1,00	0.25	0.75	15.75	1.00	0.25	0.75	22.00	1.00	0.75	0.25	28.00	1.00	0.50	0.50
	33.50	3.00	1.25	1.75	27.75	2.00	1.00	1.00	18.00	5.00	.....	.....	34.00	3.00	1.25	1.75	30.00	2.00	1.00	1.00
	34.00	6.00	3.00	3.00	30.00	5.50	3.25	2.25	.....	.....	.....	.....	37.00	4.75	2.25	2.50	33.00	4.75	2.50	2.25
	45.00	7.00	4.00	3.00	35.00	6.50	4.00	2.50	.....	.....	.....	.....	40.00	6.00	3.50	2.50	35.00	6.00	3.50	2.50
	.....	.....	.....	.....	40.00	7.50	.....	.....	.....	.....	.....	.....	45.00	7.00	4.25	2.75	39.00	7.00	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	50.00	8.00	5.25	2.75	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	53.00	9.00	.....	.....	.....	.....	.....	.....

OXFORDDOWN.

Catalogue No. of samples..	150.				150.				150.				150.				150.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	26.00	1.00	0.00	1.00	33.00	1.00	0.25	0.75	22.25	1.00	0.25	0.75	36.00	1.00	0.25	0.75	26.00	1.00	0.25	0.75
	29.00	2.75	1.00	1.75	38.00	2.00	1.00	1.00	27.50	2.00	1.00	1.00	41.00	3.00	1.25	1.75	28.00	1.25	.....	.....
	32.00	5.00	2.75	2.25	42.00	4.00	2.00	3.00	30.00	4.25	2.25	2.00	45.00	5.00	3.00	2.00	.....	.....	.....	.....
	36.50	7.50	4.00	3.50	46.00	5.75	3.00	2.75	33.00	6.00	3.50	2.50	.....	.....	.....	.....	.....	.....	.....	.....
	44.00	[illegible]	.....	.....	50.00	6.25	4.00	2.25	36.00	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	55.00	7.00	4.25	2.75	40.25	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	59.00	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	37.50	1.00	0.25	0.75	27.50	1.00	0.25	0.75	29.00	1.00	0.00	1.00	32.25	1.00	0.25	0.75	38.00	1.00	0.00	1.00
	43.00	2.00	0.75	1.25	31.00	2.50	1.00	1.50	33.00	2.00	1.00	1.00	42.00	2.00	1.00	1.00	42.00	2.00	1.00	1.00
	45.50	4.00	2.00	2.00	35.00	5.00	3.00	2.00	35.75	4.00	2.25	1.75	45.00	4.25	2.25	2.00	45.00	4.75	2.25	2.50
	50.00	6.00	3.25	2.75	40.00	6.25	4.00	2.25	40.00	5.75	.....	.....	48.75	6.00	3.75	2.25	50.00	6.00	3.50	2.50
	55.00	7.00	4.00	[illegible]	45.00	7.50	4.75	2.75	.....	.....	.....	.....	54.00	7.00	4.25	2.75	55.75	7.00	4.00	3.00
	61.00	8.00	.....	.....	49.50	8.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	63.00	8.00	.....	.....
	22.75	1.00	0.25	0.75	24.00	1.00	0.25	0.85	39.00	1.00	0.00	1.00	34.00	1.00	0.00	1.00	25.75	1.00	0.25	0.75
	28.25	2.00	1.00	1.00	27.00	2.00	1.00	1.00	42.25	2.00	1.00	1.00	38.00	2.00	1.00	1.00	34.50	2.00	1.00	1.00
	30.00	4.00	2.00	2.00	30.00	5.00	2.25	2.75	45.00	4.00	2.25	1.75	42.00	5.00	2.25	2.75	37.00	3.25	.....	.....
	34.00	6.00	3.25	2.75	35.00	6.25	4.00	2.25	50.00	6.00	3.25	2.75	48.00	6.00	4.00	2.00	.....	.....	.....	.....
	35.00	6.75	.....	.....	40.00	7.25	4.75	2.50	55.75	7.00	4.50	2.50	53.00	7.00	4.25	2.75	.....	.....	.....	.....
	.....	.....	.....	.....	42.00	8.00	.....	.....	61.25	8.00	5.00	3.00	59.00	8.00	5.25	2.75	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

OXFORDDOWN.

Catalogue No. of samples..

Actual measurements in grams and millimeters.

150.				150.				150.				150.				150.			
Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
14.00	1.00	0.00	1.00	26.00	1.00	0.25	0.75	29.00	1.00	0.25	0.75	32.00	1.00	0.00	1.00	29.75	1.00	0.25	0.75
18.00	3.00	1.25	1.75	28.00	1.25	.....	.....	36.00	2.00	0.75	1.25	36.00	2.00	0.50	1.50	32.50	2.00	1.00	1.00
20.00	6.00	3.00	3.00	.....	.....	.....	.....	39.00	4.75	.....	.....	40.00	5.00	3.50	1.50	34.50	3.25	1.25	1.73
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	48.00	7.00	4.00	3.00	37.25	5.00	2.50	2.50
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	50.00	7.25	.....	.....	41.25	6.00	3.25	2.75
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	47.75	7.00	4.00	3.00
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	50.25	8.00	.....	.....
28.50	1.00	0.25	0.75	35.25	1.00	0.25	0.75	32.00	1.00	0.50	0.50	30.00	1.00	0.25	0.75	30.50	1.00	0.25	0.75
31.75	2.00	1.00	1.00	38.00	2.25	1.25	1.00	32.75	2.00	1.00	1.00	35.00	2.00	1.00	1.00	30.50	2.00	1.00	1.0
34.00	4.00	2.00	2.00	38.00	4.00	.....	.....	35.50	3.00	1.75	1.25	37.50	4.00	2.00	2.00	36.00	4.00	2.00	2.0
36.50	6.00	3.25	2.75	.....	.....	.....	.....	39.00	5.50	3.00	2.50	42.75	6.00	3.25	2.75	44.50	6.00	3.25	2.75
42.00	7.00	.....	.....	.....	.....	.....	.....	41.50	6.25	.....	.....	43.00	7.00	4.00	3.00	50.75	7.00	4.00	3.0
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	54.00	8.00	.....	.....	56.50	8.00	.....	.....
35.50	1.00	0.25	0.75	15.00	1.00	0.25	0.75	24.00	1.00	0.25	0.75	34.75	1.00	0.00	1.00	32.25	1.00	0.25	0.75
43.00	2.00	0.75	1.25	18.00	2.00	1.25	1.75	30.50	2.00	1.00	1.00	40.00	2.00	0.75	1.25	38.50	2.00	1.00	1.00
47.00	4.00	1.75	2.25	20.00	6.00	3.00	3.00	34.00	4.00	2.00	2.00	47.00	3.00	.....	.....	42.00	4.00	2.00	2.00
50.00	5.00	.....	.....	.....	.....	.....	.....	38.50	6.00	4.25	1.75	.....	.....	.....	.....	48.00	6.00	3.25	2.75
.....	.....	.....	.....	.....	.....	.....	.....	43.50	7.00	4.50	2.50	.....	.....	.....	.....	51.00	6.25	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	46.00	8.00	5.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....

OXFORDDOWN.

Catalogue No. of samples..

Actual measurements in grams and millimeters.

151.				151.				151.				151.				151.			
Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
24.00	1.00	0.25	0.75	22.00	1.00	0.25	0.75	11.75	1.00	0.25	0.75	18.00	1.00	0.00	1.00	28.00	1.00	0.25	0.75
26.00	4.00	1.75	2.25	26.00	3.00	1.25	1.75	15.00	5.00	2.75	2.25	20.00	2.00	0.50	1.50	31.00	3.00	1.00	2.00
29.75	6.00	3.50	2.50	28.00	5.00	3.00	2.00	16.25	7.00	.....	.....	22.00	5.00	2.25	2.75	33.00	5.00	3.00	2.00
35.00	7.00	4.25	2.75	32.50	7.00	4.00	3.00	.....	.....	.....	.....	25.00	6.25	.....	.....	36.00	6.00	3.25	2.75
38.50	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	38.00	7.00	.....	.....
24.25	1.00	0.25	0.75	19.50	1.00	0.25	0.75	21.50	1.00	0.00	1.00	35.00	1.00	0.00	1.00	25.00	1.00	0.00	1.00
29.00	2.00	1.00	1.00	22.50	2.50	1.00	1.50	25.00	2.75	1.00	1.75	34.00	3.00	1.25	1.75	28.00	5.00	2.25	2.75
31.50	5.00	2.75	2.25	25.00	6.00	4.25	1.75	26.25	4.00	2.00	2.00	37.00	5.00	2.75	2.25	28.50	5.25	.....	.....
36.00	6.75	4.00	2.75	29.50	7.50	.....	.....	30.00	6.75	4.00	2.75	.....	.....	.....	.....	.....	.....	.....	.....
42.75	8.00	5.00	3.00	.....	.....	.....	.....	34.00	7.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
44.00	8.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
23.00	1.00	0.25	0.75	32.00	1.00	0.50	0.50	24.50	1.00	0.00	1.00	22.50	1.00	3.25	0.75	28.00	1.00	0.00	1.00
37.25	3.25	1.25	2.00	36.00	3.00	1.25	1.75	28.00	4.00	2.00	2.00	25.00	3.00	1.00	2.00	30.75	3.25	2.25	1.00
39.00	4.50	.....	.....	40.00	6.00	3.25	2.75	30.00	6.00	3.00	3.00	27.00	5.00	2.75	2.25	32.50	4.00	2.00	2.00
.....	.....	.....	.....	45.00	7.00	4.00	3.00	34.00	7.00	4.00	3.00	31.00	7.00	4.00	3.00	35.00	5.25	2.75	2.50
.....	.....	.....	.....	50.00	9.50	6.75	2.75	37.00	8.00	.....	.....	35.00	8.00	.....	.....	38.75	6.00	.....	.....
.....	.....	.....	.....	52.00	10.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

OXFORDDOWN.

Catalogue No. of samples..	151.				151.				151.				151.				151.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	24.25	1.00	9.25	7.15	26.25	1.00	0.00	1.00	16.25	1.00	0.25	0.75	22.00	1.00	0.25	0.75	14.75	1.00	0.25	0.75
	29.25	2.00	1.00	1.00	29.50	3.00	1.00	2.00	20.00	3.25	1.50	1.75	28.00	2.00	1.00	1.00	16.50	2.00	1.25	0.75
	31.00	4.00	2.00	2.00	32.50	5.00	3.50	1.50	21.00	5.00	2.50	2.50	30.00	5.00	2.25	2.75	18.00	5.00	2.50	2.50
	34.25	6.00	4.00	2.00	35.00	6.00	3.50	2.50	24.00	6.75	4.00	2.75	32.00	6.00	3.25	2.75	18.75	5.25	.....	.....
	39.00	9.00	.....	.....	40.00	9.00	4.00	5.00	27.00	7.50	.....	.....	35.00	7.00	4.00	3.00	.....	.....	.....	.....
	.....	.....	.....	.....	45.00	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	21.00	1.00	0.00	1.00	15.00	1.00	0.25	0.75	17.00	1.00	0.25	0.75	18.75	1.00	0.25	0.75	20.25	1.00	0.00	1.00
	24.00	3.25	1.75	1.50	19.00	2.00	0.75	1.25	20.00	3.00	1.25	1.75	22.00	3.25	1.50	1.75	22.00	2.00	0.75	1.25
	26.00	5.25	2.75	2.50	18.00	3.00	.....	.....	22.00	5.50	3.00	2.00	25.00	6.00	3.50	2.50	21.50	3.00	.....	.....
	30.00	6.75	4.00	2.75	.....	.....	.....	.....	.....	.....	.....	.....	29.00	7.50	4.50	3.00	.....	.....	.....	.....
	34.75	7.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	29.00	1.00	0.00	1.00	15.75	1.00	0.00	1.00	27.50	1.00	0.25	0.75	20.00	1.00	0.00	1.00	21.50	1.00	0.00	1.00
	33.25	3.00	1.00	2.00	17.75	3.00	1.25	1.75	30.75	3.00	1.00	2.00	22.00	3.00	1.00	2.00	26.75	2.00	1.00	1.00
	36.50	5.00	.....	.....	20.00	6.00	3.00	3.00	32.50	5.00	2.50	2.50	25.00	6.00	.....	.....	29.25	5.00	2.25	2.75
	.....	.....	.....	.....	21.00	6.75	.....	.....	36.00	6.00	3.25	2.75	.....	.....	.....	.....	32.00	6.00	3.00	3.00
	.....	.....	.....	.....	.....	.....	.....	.....	40.00	7.00	.....	.....	.....	.....	.....	.....	37.00	7.00	4.00	3.00

OXFORDDOWN.

Catalogue No. of samples..	151.				151.				151.				151.				151.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	22.75	1.00	0.25	0.75	24.00	1.00	0.25	0.75	20.00	1.00	0.25	0.75	24.75	1.00	0.25	0.75	26.00	1.00	0.25	0.75
	26.00	2.50	1.00	1.50	28.75	2.00	1.00	1.00	24.00	2.00	1.00	1.00	28.75	2.00	1.00	1.00	32.00	2.00	1.00	1.00
	28.00	4.00	1.75	2.25	30.25	4.00	2.00	2.00	25.25	4.00	1.75	2.75	30.00	3.00	1.25	1.75	33.25	3.00	1.25	1.75
	30.00	6.00	3.00	3.00	33.00	5.00	3.00	2.00	27.50	6.00	3.00	3.00	33.50	5.00	2.50	2.50	35.00	5.00	2.25	2.75
	35.00	7.00	4.00	3.00	28.00	6.75	3.25	3.50	31.50	7.00	4.00	3.00	34.75	6.00	.....	.....	37.50	6.00	3.25	2.75
	40.00	8.00	5.00	3.00	41.00	7.00	.....	.....	33.75	7.75	.....	.....	.....	.....	.....	.....	41.25	7.00	.....	.....
	16.75	1.00	0.25	0.75	26.00	1.00	0.25	0.75	24.95	1.00	0.25	0.75	19.50	1.00	0.25	0.75	19.00	1.00	0.25	0.75
	17.75	3.00	1.25	1.75	29.25	3.00	1.00	2.00	26.00	2.50	1.00	1.50	22.00	2.00	1.00	1.00	19.25	2.00	0.75	1.25
	19.25	5.00	2.50	2.50	31.50	5.00	3.50	1.50	28.25	5.00	2.25	2.75	23.25	4.00	2.00	2.00	20.00	4.00	1.00	3.00
	21.00	6.25	.....	.....	35.00	6.50	3.75	2.75	30.00	6.00	3.00	3.00	25.00	5.25	2.75	2.50	21.25	5.00	2.50	2.50
	.....	.....	.....	.....	37.00	7.00	.....	.....	33.00	7.00	4.00	3.00	28.00	6.25	3.75	2.50	23.50	6.25	3.50	2.75
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	33.00	7.50	.....	.....	27.00	8.00	.....	.....
	18.75	1.00	0.25	0.75	19.75	1.00	0.25	0.75	21.50	1.00	0.00	1.00	17.50	1.00	0.25	0.75	18.75	1.00	0.25	0.75
	23.00	2.00	0.75	1.25	24.25	2.00	1.00	1.00	22.00	3.00	1.00	2.00	20.00	2.25	1.00	1.25	20.75	2.00	1.00	1.00
	25.00	4.00	2.00	2.00	26.00	4.25	2.00	2.25	23.75	5.00	2.50	2.50	21.75	4.00	2.00	2.00	22.00	4.00	2.00	2.00
	27.50	6.00	3.25	2.75	28.00	6.00	3.00	3.00	25.25	6.00	3.00	3.00	23.00	6.00	3.00	3.00	23.75	6.00	3.25	2.75
	30.25	7.00	.....	.....	31.50	7.00	4.00	3.00	28.75	7.00	.....	.....	26.00	7.00	4.00	3.00	26.25	7.00	.....	.....
	.....	.....	.....	.....	34.50	8.00	.....	.....	.....	.....	.....	.....	29.00	8.00	4.75	3.25	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	31.25	8.75	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

OXFORDDOWN.

Catalogue No. of samples ..

151.				151.				151.				151.				151.			
Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
23.25	1.00	0.25	0.75	15.00	1.00	0.25	0.75	18.00	1.00	0.00	1.00	18.25	1.00	0.00	1.00	28.00	1.00	0.00	1.00
32.75	2.00	1.00	1.00	18.25	2.00	0.75	1.25	19.00	3.00	1.00	2.00	19.25	2.00	0.50	1.50	30.75	2.00	0.75	1.25
36.00	3.25	1.75	1.50	17.75	4.00	2.00	2.00	20.00	5.00	2.00	3.00	20.25	4.00	1.50	2.50	32.00	3.75	1.00	2.25
36.75	5.00	2.75	2.25	19.00	6.00	3.00	3.00	21.25	6.00	3.00	3.00	22.00	5.00	2.25	2.75	33.75	5.00	2.25	2.75
38.00	6.00	3.25	2.75	21.25	7.25	4.25	3.00	23.75	7.00	4.00	3.00	24.00	6.00	3.00	3.00	36.25	6.00	3.00	3.00
42.50	7.50	.....	.....	24.00	8.00	.....	.....	26.00	8.00	.....	.....	26.25	7.00	.....	.....	42.50	7.00	3.75	3.25
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	43.25	8.00	.....	.....
22.25	1.00	0.25	0.75	23.00	1.00	0.00	1.00	10.00	1.00	0.00	1.00	9.75	1.00	0.25	0.75	14.25	1.00	0.25	0.75
26.00	2.00	0.75	1.25	26.00	3.00	1.00	2.00	11.00	2.75	1.00	1.75	11.00	3.00	2.00	1.00	16.25	2.00	0.75	1.25
27.50	4.00	1.75	2.25	27.75	5.00	2.50	2.50	12.00	5.25	2.50	2.75	11.50	5.00	2.25	2.75	17.00	4.00	1.75	2.25
28.00	4.50	.....	.....	29.25	6.25	3.50	2.75	13.00	6.00	.....	.....	12.25	6.00	3.00	3.00	18.25	6.00	3.00	3.00
.....	.....	.....	.....	33.00	7.00	4.00	3.00	.....	.....	.....	.....	13.25	7.00	3.75	3.25	19.25	6.25	.....	.....
.....	.....	.....	.....	34.75	7.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24.75	1.00	0.25	0.75	21.00	1.00	0.00	1.00	11.00	1.00	0.25	0.75	23.25	1.00	0.25	0.75	19.25	1.00	0.00	1.00
27.00	2.00	1.00	1.00	22.00	3.00	1.00	2.00	14.00	3.00	1.00	2.00	27.00	2.00	0.75	1.25	20.75	3.00	1.00	2.00
29.75	4.00	1.00	3.00	23.25	5.00	2.50	2.50	14.75	5.00	2.25	2.75	27.50	4.00	2.00	2.00	21.25	4.00	1.75	2.25
31.50	5.00	2.75	2.25	25.25	6.00	3.25	2.75	15.50	6.00	3.00	3.00	30.75	5.00	3.00	3.00	23.00	5.50	2.75	2.75
33.25	6.00	3.50	2.50	30.00	7.00	4.00	3.00	16.00	7.00	3.50	3.50	33.50	11.00	4.00	3.00	27.75	7.00	4.00	3.00
36.75	7.00	4.00	3.00	34.50	8.00	.....	.....	17.50	8.00	.....	.....	38.75	7.75	.....	.....	31.25	8.00	4.75	3.25
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	34.50	9.00	5.25	3.75
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	34.50	9.25	.....	.....

Actual measurements in grams and millimeters.

OXFORDDOWN.

Catalogue No. of samples ..

152.				152.				152.				152.				152.			
Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
19.75	1.00	0.00	1.00	29.00	1.00	0.00	1.00	23.25	1.00	0.00	1.00	16.75	1.00	0.25	0.75	27.50	1.00	0.00	1.00
21.25	2.00	0.75	1.25	30.25	3.00	1.00	2.00	26.50	2.00	0.75	1.25	19.00	2.00	0.75	1.25	30.75	2.00	0.75	1.25
22.25	4.00	1.75	2.25	32.25	5.00	2.25	2.75	27.25	3.00	1.00	2.00	20.25	4.00	1.75	2.25	31.25	3.00	1.00	2.00
25.25	6.00	3.00	3.00	34.75	6.00	3.00	3.00	29.00	5.30	2.25	2.75	22.25	6.00	3.00	3.00	32.50	4.00	1.75	2.25
27.50	7.00	4.00	3.00	41.75	7.00	4.00	3.00	31.75	6.00	3.00	3.00	26.75	7.00	.....	.....	35.00	5.25	2.75	2.50
32.25	8.00	4.75	3.25	42.00	7.25	.....	.....	34.75	7.00	.....	.....	.....	.....	.....	.....	40.00	6.25	3.50	2.75
33.75	8.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	44.00	7.00	4.00	3.00
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	47.25	8.00	4.75	3.25
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	52.75	8.75	.....	.....
18.25	1.00	0.00	1.00	30.75	1.00	0.25	0.75	16.00	1.00	0.25	0.75	16.25	1.00	0.25	0.75	17.75	1.00	0.25	0.75
21.75	2.00	0.75	1.25	34.00	2.75	1.00	1.75	18.00	2.00	0.75	1.25	17.50	2.00	0.75	1.25	21.00	2.75	1.00	1.75
22.50	4.00	1.75	2.25	36.50	5.00	2.25	2.75	19.00	4.75	2.00	2.75	18.50	4.00	1.75	2.25	22.00	5.00	2.25	2.75
23.00	6.00	3.00	3.00	40.00	6.00	3.00	3.00	20.75	6.00	3.00	3.00	21.25	6.00	3.00	3.00	23.50	6.00	3.00	3.00
28.00	7.00	.....	.....	45.75	7.00	4.00	3.00	24.25	7.00	4.00	3.00	23.00	6.75	.....	.....	27.25	7.00	4.00	3.00
.....	.....	.....	.....	.....	.....	.....	.....	24.75	7.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
32.50	1.00	0.00	1.00	29.50	1.00	0.00	1.00	18.25	1.00	0.00	1.00	32.25	1.00	0.25	0.75	27.75	1.00	0.25	0.75
34.00	3.00	0.75	1.25	32.25	2.00	0.75	1.25	19.75	2.00	0.75	1.25	36.25	2.00	0.75	1.25	31.50	2.00	1.00	1.00
36.00	3.75	1.25	2.50	34.00	4.00	1.75	2.25	21.25	4.50	2.00	2.50	38.00	4.00	2.00	2.00	34.00	4.00	2.00	2.00
38.50	5.00	2.25	2.75	35.25	5.00	2.50	2.50	23.00	6.00	3.00	3.00	39.75	5.00	2.75	2.25	36.25	5.00	2.75	2.25
41.75	6.00	3.00	3.00	38.25	6.00	3.00	3.00	27.25	7.50	4.25	5.25	43.00	6.00	3.25	2.75	38.00	6.00	3.25	2.75
48.25	7.00	4.00	3.00	44.00	7.00	.....	.....	29.00	8.25	.....	.....	48.50	7.00	4.00	3.00	43.75	7.00	4.00	3.00
54.00	8.00	4.75	3.25	.....	.....	.....	.....	.....	.....	.....	.....	51.00	8.00	4.75	3.25	48.00	7.75	.....	.....
58.50	9.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	52.00	8.00	.....	.....	.....	.....	.....	.....

Actual measurements in grams and millimeters.

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

OXFORDDOWN.

Catalogue No. of samples..	152.				152.				152.				152.				152.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	32.25	1.00	0.00	1.00	24.00	1.00	0.50	0.50	14.25	1.00	0.50	0.50	19.50	1.00	0.00	1.00	14.75	1.00	0.25	0.75
	36.00	3.00	1.00	2.00	36.75	2.00	1.00	1.00	19.00	2.00	1.00	1.00	21.00	3.00	1.00	2.00	17.75	2.50	1.00	1.50
	37.75	5.00	2.25	2.75	38.25	4.00	2.00	2.00	20.00	4.00	1.75	2.25	22.50	5.00	2.00	3.00	18.00	4.00	1.75	2.25
	40.75	6.00	3.00	3.00	40.00	5.50	2.75	2.75	21.75	6.00	2.75	3.25	23.50	6.00	3.00	3.00	20.00	6.00	3.00	3.00
	47.50	7.00	4.00	3.00	48.00	7.00	4.00	3.00	24.25	7.00	.....	.....	28.00	7.00	3.50	3.50	22.00	7.00	3.75	3.25
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	32.00	8.00	4.00	4.00	25.00	7.75	.....	.....
	25.25	1.00	0.25	0.75	33.50	1.00	0.00	1.00	16.75	1.00	0.25	0.75	30.25	1.00	0.25	0.75	10.00	1.00	0.25	0.75
	26.75	2.00	0.75	1.25	34.50	2.00	0.75	1.25	18.00	2.00	0.50	1.50	32.25	2.00	0.50	1.50	11.25	3.00	1.00	2.00
	28.00	4.00	1.75	2.25	36.50	4.00	1.75	2.25	19.50	5.00	2.00	3.00	33.25	4.00	1.25	2.75	12.00	5.00	2.00	3.00
	30.00	5.25	2.75	2.50	38.25	5.00	2.50	2.50	21.00	6.00	3.00	3.00	35.00	5.00	2.00	3.00	14.25	7.00	3.00	4.00
	32.00	6.00	3.25	2.75	42.00	6.00	3.25	2.75	23.50	7.00	3.75	3.25	38.50	6.00	3.00	3.00	16.00	8.00	4.25	3.75
	37.50	7.00	4.00	3.00	48.25	7.00	4.00	3.00	26.00	7.50	.....	.....	45.00	7.00	3.50	3.50	18.00	9.00	.....	.....
	42.75	8.00	.....	.....	55.00	8.00	4.75	3.25	.....	.....	.....	.....	51.00	8.00	.....	.....	.....	.....	.....	.....
	16.75	1.00	0.00	1.00	20.75	1.00	0.25	0.75	11.75	1.00	0.25	0.75	20.50	1.00	0.25	0.75	17.50	1.00	0.25	0.75
	17.50	3.00	1.00	2.00	25.00	2.00	0.75	1.25	12.75	3.00	1.00	2.00	22.00	3.00	1.00	2.00	23.50	2.00	1.00	1.00
	20.75	6.00	2.75	3.25	26.25	5.00	2.75	2.25	13.75	6.00	3.00	3.00	24.75	5.00	2.00	3.00	24.75	5.00	2.00	3.00
	.....	.....	.....	.....	28.00	6.00	3.25	2.75	15.75	7.00	3.75	3.25	25.25	6.00	3.00	3.00	27.00	6.00	3.00	3.00
	.....	.....	.....	.....	32.25	7.00	4.00	3.00	20.00	9.00	.....	.....	28.00	6.50	.....	.....	31.00	7.00	3.75	3.25
	.....	.....	.....	.....	36.00	8.00	5.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	37.00	8.25	4.75	3.50
	.....	.....	.....	.....	40.00	9.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	41.25	9.50	.....	.....

OXFORDDOWN.

Catalogue No. of samples..	152.				152.				152.				152.				152.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	13.00	1.00	0.25	0.75	7.50	1.00	0.50	0.50	10.25	1.00	0.00	1.00	26.50	1.00	0.25	0.75	8.00	1.00	0.00	1.00
	14.00	2.00	0.75	1.25	10.00	2.00	1.00	1.00	11.25	2.00	1.00	1.00	37.25	2.00	1.00	1.00	10.75	2.00	0.75	1.25
	15.00	4.00	1.75	2.25	11.00	3.00	.....	.....	12.25	5.00	2.50	2.50	39.00	4.00	1.75	2.25	11.00	2.25	.....	.....
	16.75	6.00	3.00	3.00	.....	.....	.....	.....	14.75	7.00	4.00	3.00	40.75	5.00	2.50	2.50	.....	.....	.....	.....
	19.00	7.00	3.75	3.25	.....	.....	.....	.....	15.00	7.50	.....	.....	44.25	6.00	3.25	2.75	.....	.....	.....	.....
	21.75	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	49.75	7.00	4.00	3.00	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	54.25	7.75	.....	.....	.....	.....	.....	.....
	22.50	1.00	0.25	0.75	20.75	1.00	0.25	0.75	32.25	1.00	0.25	0.75	12.00	1.00	0.25	0.75	23.00	1.00	0.25	0.75
	31.75	2.00	0.75	1.25	22.75	3.00	1.00	2.00	33.50	2.00	0.75	1.25	16.75	2.00	1.00	1.00	27.75	2.00	0.75	1.25
	34.00	5.00	2.00	3.00	24.25	5.00	2.00	3.00	39.50	3.00	1.00	2.00	18.00	4.00	2.00	2.00	29.25	3.25	.....	.....
	37.00	6.00	.....	.....	26.50	6.00	3.00	3.00	40.75	4.00	2.00	2.00	19.75	6.00	3.50	2.50	.....	.....	.....	.....
	.....	.....	.....	.....	30.25	7.00	3.75	3.25	43.00	5.00	2.50	2.50	21.75	7.00	4.00	3.00	.....	.....	.....	.....
	.....	.....	.....	.....	32.75	8.00	.....	.....	48.50	6.00	3.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	52.00	7.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	22.00	2.00	0.75	1.25	28.50	1.00	0.25	0.75	29.75	1.00	0.25	0.75	19.25	1.00	0.00	1.00	8.25	1.00	0.25	0.75
	22.75	4.00	1.75	2.25	32.00	3.00	1.00	2.00	33.50	2.00	0.75	1.25	21.75	2.00	0.75	1.25	12.25	2.00	1.00	1.00
	25.00	5.75	2.75	3.00	33.75	5.00	2.25	2.75	35.00	3.75	1.50	2.25	23.00	3.00	2.25	0.75	13.25	4.00	2.00	2.00
	29.25	7.00	3.75	3.25	36.25	6.00	3.00	3.00	37.25	5.00	2.50	2.50	24.75	5.50	.....	.....	14.00	5.00	.....	.....
	.....	.....	.....	.....	42.00	7.00	.....	.....	41.50	6.00	3.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	46.75	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

OXFORDDOWN.

Catalogue No. of samples..	152.				152.				152.				152.				152.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	29.75	1.00	0.25	0.75	26.50	1.00	0.50	0.50	35.75	1.00	0.25	0.75	32.25	1.00	0.25	0.75	28.25	1.00	0.25	0.75
	34.25	2.00	0.75	1.25	28.25	2.00	1.00	1.00	41.50	2.00	1.00	1.00	38.25	2.00	0.75	1.25	34.00	2.00	0.75	1.25
	35.00	3.00	1.00	2.00	37.25	3.00	1.25	1.75	43.00	4.00	2.00	2.00	36.75	4.00	1.75	2.25	36.75	4.00	1.75	2.25
	36.50	4.00	2.00	2.00	43.00	5.25	2.75	2.50	45.00	5.00	2.75	2.25	39.00	5.00	2.50	2.50	37.25	5.00	2.75	2.25
	42.75	6.00	3.25	2.75	48.00	7.00	.....	.....	39.75	6.00	3.25	2.75	45.00	6.00	3.50	2.50	41.25	6.00	4.25	2.75
	48.00	7.00	4.00	3.00	.....	.....	.....	.....	51.00	6.50	.....	.....	49.50	7.00	4.00	3.00	.....	.....	.....	.....
	50.00	7.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	55.50	8.00	.....	.....	.....	.....	.....	.....
	27.25	1.00	0.25	0.75	29.50	1.00	0.25	0.75	12.75	1.00	0.25	0.75	25.50	1.00	0.25	0.75	28.50	1.00	0.25	0.75
	32.25	2.00	1.00	1.00	34.75	2.00	0.75	1.25	13.75	2.00	1.00	1.00	29.75	2.00	0.75	1.25	30.75	2.00	0.75	1.25
	40.00	3.00	1.25	1.75	36.00	4.00	2.00	2.00	14.75	4.00	2.00	2.00	30.75	3.00	1.25	1.75	31.25	3.00	1.50	1.50
	42.00	4.00	2.00	2.00	37.75	5.00	2.75	2.25	15.75	6.00	3.00	3.00	31.50	4.00	2.00	2.00	33.25	5.00	2.25	2.75
Actual measurements in grams and millimeters.	43.25	5.00	2.75	2.25	41.75	6.00	3.50	2.50	18.50	7.00	4.00	3.00	32.25	5.00	2.75	2.25	37.00	6.00	3.25	2.75
	47.00	6.00	3.25	2.75	47.00	7.00	4.00	3.00	21.25	8.00	5.00	3.00	36.75	6.00	3.25	2.75	42.00	7.00	4.00	3.00
	50.25	7.00	4.00	3.00	53.00	8.00	.....	.....	.....	.....	.....	.....	41.75	7.00	4.00	3.00	47.50	8.00	.....	.....
	56.00	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	47.25	8.00	5.00	3.00	.....	.....	.....	.....
	31.25	1.00	0.25	0.75	32.00	1.00	0.25	0.75	10.50	1.00	0.25	0.75	27.25	1.00	0.25	0.75	23.50	1.00	0.25	0.75
	38.00	2.00	0.75	1.25	36.75	2.00	0.75	1.25	14.25	2.00	1.00	1.00	32.00	2.00	0.75	1.25	25.50	2.00	0.75	1.25
	40.50	4.00	2.00	2.00	39.25	4.00	1.75	2.25	15.00	4.00	2.00	2.00	34.00	4.00	2.00	2.00	28.25	4.00	1.75	2.25
	42.00	5.00	2.50	2.50	41.00	5.00	2.50	2.50	.....	.....	.....	.....	35.00	5.00	2.50	2.50	27.00	5.00	2.25	2.75
	43.75	6.00	3.25	2.75	43.50	6.00	3.25	2.75	.....	.....	.....	.....	38.50	6.00	3.25	2.75	29.50	6.00	3.00	3.00
	51.25	7.00	4.00	3.00	51.00	7.00	4.00	3.00	.....	.....	.....	.....	41.50	7.00	4.00	3.00	33.50	7.00	4.00	3.00
	57.75	8.00	5.00	3.00	52.00	7.25	.....	.....	.....	.....	.....	.....	46.25	8.00	.....	.....	.....	.....	.....	.....
	61.25	9.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

OXFORDDOWN.

Catalogue No. of samples..	153.				153.				153.				153.				153.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	26.00	1.00	0.25	0.75	9.25	1.00	0.25	0.75	18.75	1.00	0.25	0.75	11.50	1.00	0.25	0.75	18.50	1.00	0.50	0.50
	28.00	2.00	0.75	1.25	13.00	2.00	1.00	1.00	23.00	2.00	1.00	1.00	14.25	2.00	1.00	1.00	19.25	2.00	1.00	1.00
	29.25	4.00	1.75	2.25	14.00	4.00	2.00	2.00	24.25	4.00	2.00	2.00	15.25	4.00	2.00	2.00	21.00	3.00	1.50	1.50
	30.25	5.00	2.50	2.50	15.50	5.50	.....	.....	25.25	5.00	2.75	2.25	.....	.....	.....	.....	23.00	5.25	3.00	2.25
	33.75	6.00	3.25	2.75	.....	.....	.....	.....	27.50	6.00	3.25	2.75	.....	.....	.....	.....	24.00	6.00	.....	.....
	38.25	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	20.75	1.00	0.25	0.75	20.25	1.00	0.25	0.75	25.25	1.00	0.25	0.75	14.00	1.00	0.25	0.75	14.25	1.00	0.25	0.75
	28.00	2.00	1.00	1.00	22.25	2.00	0.75	1.25	28.25	2.00	1.00	1.00	18.00	2.00	1.00	1.00	18.25	2.00	1.00	1.00
	29.50	4.00	2.00	2.00	23.50	4.00	2.00	2.00	29.00	3.00	1.25	1.75	19.00	4.00	1.75	2.25	19.25	3.00	1.50	1.50
	30.50	5.00	2.75	2.25	25.00	5.00	2.50	2.50	30.00	4.00	2.00	2.00	20.00	5.25	2.75	2.50	20.50	5.00	2.50	2.50
	32.75	6.00	3.25	2.75	27.50	6.00	3.25	2.75	33.25	6.00	.....	.....	.....	.....	.....	.....	22.00	6.00	3.25	2.75
	36.00	7.00	.....	.....	27.25	6.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	24.75	7.00	4.00	3.00
	17.25	1.00	0.25	0.75	21.25	1.00	0.25	0.75	17.00	1.00	0.25	0.75	22.00	1.00	0.25	0.75	15.75	1.00	0.50	0.50
	20.00	2.00	1.00	1.00	23.25	3.00	1.00	2.00	19.75	2.00	1.00	1.00	24.75	2.00	1.00	1.00	25.00	2.00	1.00	1.00
	21.00	3.00	1.25	1.75	24.25	4.00	2.00	2.00	20.00	2.50	.....	.....	25.75	4.00	2.00	2.00	26.25	4.00	2.00	2.00
	22.50	5.00	2.50	2.50	27.75	6.00	3.00	3.00	.....	.....	.....	.....	27.00	5.00	2.50	2.50	26.75	4.75	.....	.....
	24.75	6.00	3.25	2.75	27.00	6.75	.....	.....	.....	.....	.....	.....	29.50	6.00	3.25	2.75	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	32.25	7.00	4.00	3.00	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	34.00	7.25	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

OXFORDDOWN.

Catalogue No. of samples..	153.				153.				153.				153.				153.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	mm.	mm.	mm.	gms.	mm.	mm.	mm.	gms.	mm.	mm.	mm.	gms.	mm.	mm.	mm.	gms.	mm.	mm.	mm.
	18.75	1.00	0.25	0.75	17.75	1.00	0.25	0.75	22.25	1.00	0.25	0.75	9.75	1.00	0.25	0.75	17.00	1.00	0.25	0.75
	23.00	2.00	1.00	1.00	22.00	2.00	0.75	1.25	25.00	2.00	0.75	1.25	12.50	2.00	1.00	1.00	19.25	2.00	0.75	1.25
	24.00	4.00	1.75	2.25	23.25	4.00	1.75	2.25	27.00	3.50	.....	.....	13.00	3.00	1.25	1.75	20.00	3.50	.....	.....
	25.00	5.00	2.75	2.25	24.25	5.00	2.50	2.50	.....	.....	.....	.....	14.50	5.00	2.25	2.75	.....	.....	.....	.....
	26.25	6.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15.25	6.00	3.00	3.00	.....	.....	.....	.....
	18.00	1.00	0.25	0.75	13.25	1.00	0.50	0.50	12.75	1.00	0.50	0.50	12.00	1.00	0.75	0.25	18.75	1.00	0.25	0.75
	19.50	2.00	0.75	1.25	20.75	2.00	1.00	1.00	23.00	2.00	1.00	1.00	22.00	2.00	1.00	1.00	20.75	2.00	0.75	1.25
	20.75	3.00	.....	.....	21.50	3.00	1.25	1.75	24.50	4.00	2.00	2.00	23.50	4.00	2.00	2.00	21.75	2.75	.....	.....
	.....	.....	.....	.....	22.00	3.25	.....	.....	25.50	5.00	2.75	2.25	24.75	5.00	2.75	2.25	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	26.75	6.00	3.50	2.50	25.50	6.00	3.25	2.75	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	28.25	6.75	.....	.....	27.50	7.00	4.25	2.75	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30.50	8.00	5.00	3.00	.....	.....	.....	.....
	14.00	1.00	0.00	1.00	31.25	1.00	0.25	0.75	11.25	1.00	0.50	0.50	20.00	1.00	0.00	1.00	18.00	1.00	0.25	0.75
	16.75	2.00	0.50	1.50	39.00	2.00	0.75	1.25	25.75	2.00	1.00	1.00	20.50	2.00	0.50	1.50	20.25	2.00	1.00	1.00
	17.50	3.00	1.00	2.00	40.25	3.00	1.25	1.75	28.75	3.00	1.75	1.25	21.25	3.00	1.00	2.00	21.25	4.00	2.00	2.00
	18.00	4.00	2.00	2.00	41.50	4.00	2.00	2.00	30.75	5.00	.....	.....	22.25	4.00	1.75	2.25	22.25	5.00	2.75	2.25
	19.00	5.00	2.75	2.25	43.50	5.00	2.75	2.25	.....	.....	.....	.....	23.75	5.00	2.50	2.50	24.25	6.00	.....	.....
	20.75	6.25	.....	.....	45.75	6.00	.....	.....	.....	.....	.....	.....	27.25	6.00	3.25	2.75	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29.25	7.00	.....	.....	.....	.....	.....	.....

OXFORDDOWN.

Catalogue No. of samples..	153.				153.				153.				153.				153.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	mm.	mm.	mm.	gms.	mm.	mm.	mm.	gms.	mm.	mm.	mm.	gms.	mm.	mm.	mm.	gms.	mm.	mm.	mm.
	20.00	1.00	0.00	1.00	19.50	1.00	0.25	0.75	21.25	1.00	0.25	0.75	18.75	1.00	0.00	1.00	22.75	1.00	0.25	0.75
	22.50	2.00	0.75	1.25	22.00	2.25	1.00	1.25	24.50	2.00	1.00	1.00	21.00	2.00	1.00	1.00	26.00	2.00	0.75	1.25
	24.00	3.00	.....	.....	23.25	4.00	2.00	2.00	25.50	3.00	1.25	1.75	21.75	3.00	1.50	1.50	26.50	4.00	1.75	2.25
	.....	.....	.....	.....	24.75	5.00	2.75	2.25	26.50	4.00	2.00	2.00	23.00	4.00	2.00	2.00	28.25	5.00	2.75	2.25
	.....	.....	.....	.....	26.75	5.75	.....	.....	27.75	5.00	3.75	2.25	25.25	5.50	.....	.....	31.50	6.00	3.25	2.75
	.....	.....	.....	.....	.....	.....	.....	.....	28.00	5.25	.....	.....	.....	.....	.....	.....	32.50	6.50	.....	.....
	18.25	1.00	0.25	0.75	23.50	1.00	0.25	0.75	19.50	1.00	0.25	0.75	19.50	1.00	0.00	1.00	15.75	1.00	0.25	0.75
	19.25	3.00	1.00	2.00	27.50	2.00	1.00	1.00	21.75	2.00	0.75	1.25	21.25	2.00	0.75	1.25	17.25	2.00	0.75	1.25
	20.25	3.75	.....	.....	28.00	3.00	1.25	1.75	22.50	4.00	1.75	2.25	22.25	4.00	1.75	2.25	18.50	4.00	2.00	2.00
	.....	.....	.....	.....	29.25	4.00	2.00	2.00	.....	.....	.....	.....	25.25	6.00	.....	.....	20.75	6.00	3.25	2.75
	.....	.....	.....	.....	30.25	5.00	2.75	2.25	.....	.....	.....	.....	.....	.....	.....	.....	22.75	7.00	4.25	2.75
	.....	.....	.....	.....	33.50	6.00	3.50	2.50	.....	.....	.....	.....	.....	.....	.....	.....	23.75	9.00	.....	.....
	.....	.....	.....	.....	38.00	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	42.25	8.00	5.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	18.25	1.00	0.25	0.75	17.50	1.00	0.25	0.75	22.00	1.00	0.00	1.00	13.25	1.00	0.25	0.75	25.25	1.00	0.25	0.75
	21.75	2.00	0.75	1.25	21.50	2.00	1.00	1.00	23.50	2.00	0.75	1.25	14.75	2.00	0.75	1.25	26.75	2.00	1.00	1.00
	22.00	3.00	1.00	2.00	22.50	3.00	1.50	1.50	24.00	3.00	1.00	2.00	16.00	2.25	.....	.....	27.75	3.00	1.25	1.75
	22.75	4.00	2.00	2.00	25.00	5.00	2.75	2.25	25.25	4.00	2.00	2.00	.....	.....	.....	.....	28.75	4.00	2.00	2.00
	24.00	5.00	2.75	2.25	26.25	6.00	3.75	2.25	29.75	6.00	3.00	3.00	.....	.....	.....	.....	29.75	5.00	2.75	2.25
	25.75	6.00	3.25	2.75	28.75	7.00	.....	.....	33.75	7.00	.....	.....	.....	.....	.....	.....	32.50	6.00	3.50	2.50
	29.25	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	34.25	7.00	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

OXFORDDOWN.

Catalogue No. of samples..

153.				153.				153.				153.				153.			
Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
12.25	1.00	0.25	0.75	22.75	1.00	0.25	0.75	19.75	1.00	0.25	0.75	20.50	1.00	0.00	1.00	17.75	1.00	0.50	0.50
14.00	2.00	1.00	1.00	24.75	3.00	1.25	1.75	23.75	2.00	1.00	1.00	20.75	3.00	1.00	2.00	24.00	2.00	1.00	1.00
15.00	4.00	2.00	2.00	25.25	4.00	2.00	2.00	25.00	4.00	2.00	2.00	22.00	4.00	2.00	2.00	25.00	3.00	1.25	1.75
16.25	6.00	3.00	3.00	26.75	5.00	2.75	2.25	26.00	5.00	2.50	2.50	23.00	5.00	2.75	2.25	26.50	4.00	.....	.....
.....	.....	.....	.....	29.50	6.00	.....	.....	28.25	6.00	3.25	2.75	25.00	6.00	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	31.00	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18.50	1.00	0.25	0.75	21.50	1.00	0.25	0.75	21.50	1.00	0.25	0.75	18.75	1.00	0.25	0.75	22.75	1.00	0.25	0.75
20.25	3.00	1.25	1.75	25.00	2.00	0.75	1.25	22.50	2.00	1.00	1.00	19.25	2.00	0.75	1.25	26.50	2.00	1.00	1.00
.....	.....	.....	.....	28.75	4.00	2.00	2.00	24.25	3.00	1.25	1.75	12.00	4.00	1.75	2.25	27.25	4.00	2.00	2.00
.....	.....	.....	.....	29.00	5.00	.....	.....	24.00	4.00	2.00	2.00	13.25	6.00	3.00	3.00	28.00	5.00	2.75	2.25
.....	.....	.....	.....	.....	.....	.....	.....	27.25	6.00	3.00	3.00	16.00	7.00	.....	.....	30.00	6.00	3.25	2.75
.....	.....	.....	.....	.....	.....	.....	.....	28.00	6.25	.....	.....	.....	.....	.....	.....	34.50	7.00	4.00	3.00
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	35.75	7.75	.....	.....
18.25	1.00	0.25	0.75	20.50	1.00	0.25	0.75	16.50	1.00	0.25	0.75	17.50	1.00	0.25	0.75	21.75	1.00	0.25	0.75
20.75	2.00	0.75	1.25	21.75	2.00	0.75	1.25	19.50	2.00	1.00	1.00	19.00	2.00	1.00	1.00	22.50	2.00	0.75	1.25
21.25	4.00	1.75	2.25	23.00	4.00	1.75	2.25	22.00	3.00	1.50	1.50	19.75	4.00	2.00	2.00	23.75	3.00	1.00	2.00
22.50	5.00	2.75	2.25	25.00	5.25	2.75	2.50	22.00	4.00	.....	.....	20.50	5.00	2.75	2.25	25.00	5.00	.....	.....
23.25	6.00	.....	.....	26.50	5.75	.....	.....	.....	.....	.....	.....	22.25	6.00	3.25	2.75	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	25.50	7.00	4.00	3.00	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27.75	8.00	.....	.....	.....	.....	.....	.....

Actual measurements in grams and millimeters.

OXFORDDOWN.

Catalogue No. of samples..

154.				154.				154.				154.				154.			
Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
32.00	1.00	0.00	1.00	35.50	1.00	0.25	0.75	33.75	1.00	0.25	0.75	32.00	1.00	0.25	0.75	23.50	1.00	0.25	0.75
36.50	2.00	0.75	1.25	41.00	2.00	1.00	1.00	37.00	2.00	0.75	1.25	33.25	2.00	1.00	1.00	27.00	2.00	1.00	1.00
38.25	4.00	1.75	2.25	42.50	4.00	2.00	2.00	38.75	4.00	2.00	2.00	35.50	4.00	2.00	2.00	27.75	3.00	1.25	1.75
40.50	5.00	2.75	2.25	44.00	5.00	2.75	2.25	40.75	5.00	3.75	2.25	37.25	5.00	3.00	2.00	30.00	5.00	2.50	2.50
44.75	6.00	3.25	2.75	47.25	6.00	3.00	3.00	.....	.....	.....	.....	40.75	6.00	3.50	2.50	32.50	6.00	3.25	2.75
50.00	7.00	.....	.....	54.50	7.00	4.00	3.00	.....	.....	.....	.....	46.00	7.00	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	60.00	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
29.00	1.00	0.25	0.75	34.75	1.00	0.25	0.75	33.25	1.00	0.25	0.75	32.75	1.00	0.25	0.75	34.50	1.00	0.25	0.75
32.00	2.00	1.00	1.00	38.25	2.00	1.00	1.00	38.50	2.00	1.00	1.00	40.75	2.00	0.75	1.25	38.75	3.00	1.25	1.75
33.50	4.00	2.00	2.00	40.25	4.00	2.00	2.00	39.75	4.00	2.00	2.00	41.75	3.00	1.25	1.75	41.50	5.00	2.75	2.25
35.50	5.00	3.00	2.00	45.25	6.00	.....	.....	44.00	6.00	3.00	3.00	44.75	5.00	2.75	2.25	44.75	6.00	3.50	2.50
37.25	6.00	3.50	2.50	.....	.....	.....	.....	49.50	7.00	4.00	3.00	47.50	6.00	3.25	2.75	48.75	7.00	.....	.....
41.25	6.75	.....	.....	.....	.....	.....	.....	55.25	8.00	5.00	3.00	54.50	7.00	4.00	3.00	.....	.....	.....	.....
39.00	1.00	0.25	0.75	30.50	1.00	0.25	0.75	20.00	1.00	0.50	0.50	28.25	1.00	0.25	0.75	30.50	1.00	0.25	0.75
42.25	2.00	0.75	1.25	34.50	2.00	0.75	1.25	25.75	2.00	1.00	1.00	40.75	2.00	1.00	1.00	39.00	2.00	0.75	1.25
43.50	3.00	1.25	1.75	35.50	3.00	1.25	1.75	27.25	3.00	1.75	1.25	42.25	4.00	2.00	2.00	41.00	4.00	1.75	2.25
45.00	4.00	.....	.....	37.50	5.00	2.75	2.25	30.00	6.00	3.00	3.00	43.75	5.00	2.75	2.25	45.00	6.00	3.00	3.00
.....	.....	.....	.....	40.75	6.00	3.25	2.75	32.50	7.00	4.00	3.00	46.25	6.00	3.25	2.75	51.25	7.00	4.00	3.00
.....	.....	.....	.....	47.50	7.00	4.00	3.00	36.50	8.00	5.00	3.00	53.75	7.00	4.00	3.00	56.75	8.00	5.00	3.00
.....	.....	.....	.....	53.50	8.00	5.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	54.25	8.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Actual measurements in grams and millimeters.

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

OXFORDDOWN.

Catalogue No. of samples ..	154.				154.				154.				154.				154.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	35.00	1.00	0.25	0.75	40.75	1.00	0.25	0.75	35.25	1.00	0.25	0.75	25.25	1.00	0.50	0.50	36.00	1.00	0.25	0.75
	37.25	2.00	1.00	1.00	43.50	2.00	1.00	1.00	42.00	2.00	0.75	1.25	32.50	2.00	1.00	1.00	44.80	2.00	1.00	1.00
	39.50	4.00	2.00	2.00	45.75	4.00	2.00	2.00	44.00	4.00	2.00	2.00	34.00	4.00	2.00	2.00	46.75	4.00	2.00	2.00
	44.50	6.00	3.00	3.00	47.75	5.00	2.75	2.75	49.50	6.00	3.00	3.00	35.25	5.00	3.00	2.00	48.50	5.00	3.00	2.00
	49.50	7.00	.....	.....	52.50	6.00	.....	.....	56.25	7.00	.....	.....	38.50	6.00	.....	.....	53.00	6.00	3.75	2.25
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	59.50	7.00	4.25	2.75
	33.25	1.00	0.25	0.75	36.50	1.00	0.25	0.75	37.25	1.00	0.25	0.75	29.00	1.00	0.25	0.75	34.50	1.00	0.00	1.00
	37.50	2.00	0.75	1.25	42.50	2.00	1.00	1.00	43.00	2.00	1.00	1.00	36.00	2.00	1.00	1.00	42.00	2.00	1.00	1.00
	38.25	3.00	1.25	1.75	44.50	4.00	2.00	2.00	45.75	4.00	2.00	2.00	38.00	4.00	2.00	2.00	44.25	4.00	2.00	2.00
	41.00	5.00	2.25	2.75	49.50	6.00	3.25	2.25	47.25	5.00	3.00	2.00	40.50	5.00	3.00	2.00	45.75	5.00	3.00	2.00
	45.75	6.00	3.25	2.75	55.00	7.00	.....	.....	51.00	6.00	3.75	2.25	43.75	6.00	4.00	2.00	50.00	6.00	3.75	2.25
	52.00	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	46.50	7.00	.....	.....	.....	.....	.....	.....
	30.75	1.00	0.25	0.75	31.00	1.00	0.25	0.75	37.75	1.00	0.25	0.75	27.75	1.00	0.25	0.75	31.75	1.00	0.25	0.75
	33.50	2.00	1.00	1.00	36.50	2.00	1.00	1.00	42.50	2.00	1.00	1.00	39.75	2.00	1.00	1.00	41.50	2.00	1.00	1.00
	36.00	4.00	2.00	2.00	39.00	4.00	2.00	2.00	45.25	4.00	2.00	2.00	41.50	3.00	1.50	1.50	42.00	3.00	1.50	1.50
	37.50	5.00	3.00	2.00	41.00	5.00	3.00	2.00	47.00	5.00	.....	.....	44.00	5.00	2.75	2.25	45.50	5.00	2.75	2.25
	40.75	6.00	3.75	2.25	43.75	6.00	3.50	2.50	.....	.....	.....	.....	48.50	6.00	.....	.....	.....	.....	.....	.....
	45.00	7.00	.....	.....	49.00	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

OXFORDDOWN.

Catalogue No. of samples ..	157.				157.				157.				157.				157.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	22.25	1.00	0.25	0.75	20.50	1.00	0.25	0.75	21.50	1.00	0.25	0.75	19.75	1.00	0.25	0.75	15.25	1.00	0.25	0.75
	23.25	2.00	1.00	1.00	25.25	2.00	1.00	1.00	25.00	2.00	1.00	1.00	20.50	2.00	1.00	1.00	17.00	2.00	1.00	1.00
	24.25	4.00	2.00	2.00	26.00	3.00	1.25	1.75	26.00	3.00	1.50	1.50	21.00	3.00	1.25	1.75	.....	.....	.....	.....
	27.25	6.00	3.25	2.75	28.00	5.00	2.75	2.25	.....	.....	.....	.....	20.00	4.00	2.00	2.00	.....	.....	.....	.....
	.....	.....	.....	.....	30.25	5.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	23.75	1.00	0.25	0.75	16.00	1.00	0.25	0.75	18.75	1.00	0.25	0.75	24.25	1.00	0.25	0.75	21.75	1.00	0.25	0.75
	25.00	2.00	1.00	1.00	21.25	2.00	1.00	1.00	19.75	3.00	1.25	1.75	25.50	2.00	1.00	1.00	23.75	2.00	1.00	1.00
	26.50	4.00	2.00	2.00	.....	.....	.....	.....	21.00	4.00	.....	.....	26.75	4.00	2.00	2.00	24.50	3.00	.....	.....
	27.25	5.00	3.00	2.00	.....	.....	.....	.....	.....	.....	.....	.....	28.00	5.00	2.75	2.25	.....	.....	.....	.....
	29.00	6.00	3.50	2.50	.....	.....	.....	.....	.....	.....	.....	.....	30.50	6.00	.....	.....	.....	.....	.....	.....
	32.75	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	22.50	1.00	0.25	0.75	13.50	1.00	0.25	0.75	14.25	1.00	0.50	0.50	23.50	1.00	0.25	0.75	18.00	1.00	0.25	0.75
	24.75	2.00	1.00	1.00	17.50	2.00	1.00	1.00	17.75	2.00	1.00	1.00	25.25	2.00	1.00	1.00	18.50	2.00	1.00	1.00
	25.50	3.00	1.25	1.75	19.25	3.00	.....	.....	.....	.....	.....	.....	26.50	4.00	2.00	2.00	19.25	4.00	1.75	2.25
	26.00	4.00	2.00	2.00	.....	.....	.....	.....	.....	.....	.....	.....	27.25	5.00	3.00	2.00	20.75	5.00	2.75	2.25
	27.50	5.00	3.00	2.00	.....	.....	.....	.....	.....	.....	.....	.....	29.75	6.00	3.50	2.50	24.50	6.00	.....	.....
	30.25	6.00	3.75	2.25	.....	.....	.....	.....	.....	.....	.....	.....	34.00	7.00	4.00	3.00	.....	.....	.....	.....
	31.75	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	38.50	8.00	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

OXFORDDOWN.

Catalogue No. of samples..	157.				157.				157.				157.				157.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	15.00	1.00	0.50	0.50	19.50	1.00	0.25	0.75	14.75	1.00	0.25	0.75	16.50	1.00	0.25	0.75	21.00	1.00	0.25	0.75
	18.25	2.00	1.00	1.00	22.00	2.00	0.75	1.25	15.75	2.00	1.00	1.00	18.75	2.00	1.00	1.00	23.75	2.00	1.00	1.00
	19.75	3.00	1.50	1.50	22.75	3.00	1.25	1.75	16.75	3.00	1.50	1.50	19.50	3.00	1.25	1.75	24.25	3.00	1.25	1.75
	20.00	4.00	2.00	2.00	23.00	4.00	2.00	2.00	17.25	4.00	2.00	2.00	20.00	4.00	2.00	2.00	25.50	4.00	2.00	2.00
	22.25	5.00	3.00	2.00	24.25	5.00	2.75	2.25	18.50	5.00	2.75	2.25	.....	.....	.....	.....	26.50	5.00	3.00	2.00
	22.25	6.00	3.75	2.25	26.50	6.00	3.75	2.25	20.00	6.00	3.25	2.75	.....	.....	.....	.....	28.75	6.00	3.75	2.25
	24.25	7.00	.....	.....	27.25	6.25	.....	.....	21.00	6.75	.....	.....	.....	.....	.....	.....	31.50	7.00	4.25	2.75
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30.00	7.75	.....	.....
	21.00	1.00	0.25	0.75	19.25	1.00	0.25	0.75	17.25	1.00	0.25	0.75	12.50	1.00	0.00	1.00	19.25	1.00	0.25	0.75
	22.50	2.00	0.75	1.25	20.25	2.00	1.00	1.00	18.75	2.00	1.00	1.00	13.00	2.00	0.75	1.25	21.75	2.00	1.00	1.00
	23.00	3.00	1.25	1.75	21.00	3.00	1.25	1.75	20.00	3.00	1.25	1.75	14.50	4.00	2.00	2.00	22.50	3.00	1.25	1.75
	24.00	4.00	2.00	2.00	22.00	4.00	2.00	2.00	21.00	4.00	2.00	2.00	15.00	5.00	2.75	2.25	23.50	4.00	2.00	2.00
	25.50	4.25	.....	.....	24.25	6.00	3.25	2.75	.....	.....	.....	.....	17.75	7.00	4.00	3.00	24.25	5.00	3.00	2.00
	.....	.....	.....	.....	27.00	7.00	4.00	3.00	.....	.....	.....	.....	18.00	7.25	.....	.....	26.25	6.00	3.75	2.25
	.....	.....	.....	.....	28.00	7.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29.25	7.00	4.00	3.00
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30.00	7.25	.....	.....
	15.75	1.00	0.25	0.75	16.50	1.00	0.00	1.00	19.00	1.00	0.00	1.00	21.50	1.00	0.25	0.75	20.50	1.00	0.25	0.75
	16.25	2.00	1.00	1.00	18.50	2.00	1.00	1.00	19.75	2.00	0.75	1.25	22.50	2.00	1.00	1.00	21.75	2.00	1.00	1.00
	18.00	4.00	2.00	2.00	18.75	4.00	.....	.....	21.00	3.00	1.00	2.00	23.00	3.00	1.25	1.75	22.50	3.00	1.25	1.75
	19.25	5.00	.....	.....	.....	.....	.....	.....	22.25	5.00	2.25	2.75	24.50	4.00	2.00	2.00	23.25	4.00	2.00	2.00
	.....	.....	.....	.....	.....	.....	.....	.....	24.00	6.00	3.00	3.00	24.50	5.00	2.75	2.25	25.50	6.00	3.25	2.75
	.....	.....	.....	.....	.....	.....	.....	.....	27.00	7.00	4.00	3.00	26.75	6.00	3.25	2.75	29.25	7.00	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	28.75	7.75	.....	.....	31.00	7.00	4.00	3.00	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	33.75	7.75	.....	.....	.....	.....	.....	.....

OXFORDDOWN.

Catalogue No. of samples..	158.				158.				158.				158.				158.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	25.00	1.00	0.25	0.75	25.75	1.00	0.25	0.75	17.50	1.00	0.25	0.75	21.25	1.00	0.25	0.75	20.75	1.00	0.25	0.75
	27.25	2.00	1.00	1.00	27.50	2.00	0.75	1.25	20.25	2.00	1.00	1.00	22.50	2.00	1.00	1.00	21.75	2.00	0.75	1.25
	28.25	3.00	1.25	1.75	28.50	3.00	1.25	1.75	21.25	3.00	1.25	1.75	23.25	3.00	1.25	1.75	22.25	3.00	1.25	1.75
	30.25	5.00	2.50	2.50	29.75	4.25	2.25	2.00	22.00	4.00	2.00	2.00	24.50	4.00	2.00	2.00	22.75	4.00	2.00	2.00
	33.75	6.00	3.50	2.50	31.25	5.00	3.00	2.00	23.50	5.00	3.00	2.00	25.75	5.00	3.00	2.00	24.50	5.00	2.75	2.25
	37.50	7.00	.....	.....	34.75	6.00	3.50	2.50	25.50	6.00	3.50	2.50	28.25	6.00	3.50	2.50	27.25	6.00	3.50	2.50
	.....	.....	.....	.....	39.25	7.00	.....	.....	28.25	7.00	4.25	2.75	29.75	6.25	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	31.75	7.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	22.50	1.00	0.25	0.75	19.00	1.00	0.25	0.75	25.50	1.00	0.25	0.75	19.50	1.00	0.25	0.75	22.75	1.00	0.25	0.75
	24.00	2.00	1.00	1.00	21.25	2.00	1.00	1.00	27.50	2.00	1.00	1.25	20.50	2.00	1.00	1.00	26.25	2.00	1.00	1.00
	25.25	3.00	1.25	1.75	22.50	3.00	1.50	1.50	29.00	4.00	2.00	2.00	21.50	3.00	.....	.....	27.25	3.00	1.25	1.75
	26.00	4.00	.....	.....	23.50	4.00	2.00	2.00	30.75	5.00	3.00	2.00	.....	.....	.....	.....	28.25	4.00	2.00	2.00
	.....	.....	.....	.....	24.75	5.00	3.00	2.00	33.00	6.00	3.50	2.50	.....	.....	.....	.....	28.50	5.00	3.00	2.00
	.....	.....	.....	.....	26.25	6.00	3.75	2.25	35.25	7.00	4.25	2.75	.....	.....	.....	.....	31.25	6.00	3.25	2.75
	.....	.....	.....	.....	30.00	7.00	4.25	2.75	42.50	8.00	5.00	3.00	.....	.....	.....	.....	35.50	6.75	.....	.....
	.....	.....	.....	.....	32.75	7.50	.....	.....	44.25	8.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	22.25	1.00	0.25	0.75	20.50	1.00	0.25	0.75	25.00	1.00	0.25	0.75	25.75	1.00	0.25	0.75	14.50	1.00	0.00	1.00
	24.75	2.00	0.75	1.25	22.25	2.00	1.00	1.00	26.50	2.00	0.75	1.25	26.50	2.00	1.00	1.00	17.25	2.00	0.25	1.75
	25.75	3.00	1.25	1.75	23.00	3.00	1.50	1.50	28.00	3.00	1.25	1.75	29.75	3.00	1.25	1.75	18.00	3.00	1.00	2.00
	27.25	5.00	2.75	2.25	24.75	4.00	2.00	2.00	30.50	5.00	2.75	2.25	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	25.75	5.00	3.00	2.00	32.75	6.00	3.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	27.50	6.00	3.50	2.50	37.75	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	31.25	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

OXFORDDOWN.

Catalogue No. of samples..	158.				158.				158.				158.				158.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	23.75	1.00	0.25	0.75	20.50	1.00	0.00	1.00	19.25	1.00	0.25	0.75	18.75	1.00	0.00	1.00	23.75	1.00	0.25	0.75
	24.75	2.00	1.00	1.00	22.75	2.00	0.75	1.25	22.50	2.00	1.00	1.00	20.00	2.00	0.75	1.25	26.25	2.00	1.00	1.00
	26.00	3.00	1.25	1.75	23.75	3.00	1.25	1.75	23.75	3.00	1.25	1.75	20.75	3.00	1.25	1.75	27.25	4.00	2.00	2.00
	27.50	4.00	2.00	2.00	26.50	4.00	.....	.....	25.00	4.00	2.00	2.00	21.75	4.00	2.00	2.00	28.75	5.00	3.00	2.00
	28.50	5.00	2.75	2.25	.....	.....	.....	.....	26.25	5.00	2.75	2.25	23.50	5.00	3.00	2.00	31.50	6.00	.....	.....
	31.25	6.00	3.75	2.25	.....	.....	.....	.....	28.50	6.00	3.50	2.50	25.50	6.00	3.50	2.50	.....	.....	.....	.....
	34.50	7.00	4.00	3.00	.....	.....	.....	.....	32.50	7.00	4.25	2.75	28.50	7.00	.....	.....	.....	.....	.....	.....
	39.25	8.00	.....	.....	.....	.....	.....	.....	36.75	8.00	5.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....
	27.75	1.00	0.25	0.75	21.00	1.00	0.00	1.00	14.25	1.00	0.25	0.75	17.25	1.00	0.25	0.75	23.00	1.00	0.25	0.75
	30.25	2.00	1.00	1.00	22.75	2.00	0.75	1.25	16.50	2.00	1.00	1.00	18.50	2.00	1.00	1.00	24.25	2.00	0.75	1.25
	31.00	3.00	1.25	1.75	23.75	3.00	1.25	1.75	17.50	3.00	1.25	1.75	20.50	3.00	1.25	1.75	25.00	3.00	1.25	1.75
Actual measurements in grams and millimeters.	31.75	4.00	2.00	2.00	24.75	4.00	2.00	2.00	18.50	4.00	2.00	2.00	21.50	4.00	2.00	2.00	26.25	4.00	2.00	2.00
	34.00	5.00	2.75	2.25	27.00	5.00	2.75	2.25	19.50	5.00	3.00	2.00	22.50	5.00	3.00	2.00	28.00	5.00	3.00	2.00
	38.00	6.00	3.75	2.25	29.75	6.00	3.50	2.50	21.00	6.00	3.50	2.50	24.00	6.00	3.50	2.50	30.50	6.00	3.50	2.50
	42.00	7.00	.....	.....	33.75	7.00	4.00	3.00	24.00	7.00	.....	.....	25.00	6.50	.....	.....	35.25	7.00	.....	.....
	.....	.....	.....	.....	37.50	8.00	5.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	24.00	1.00	0.25	0.75	25.00	1.00	0.00	1.00	22.50	1.00	0.25	0.75	16.75	1.00	0.00	1.00	23.75	1.00	0.25	0.75
	27.50	2.00	1.00	1.00	26.50	2.00	0.75	1.25	23.75	2.00	0.75	1.25	18.00	2.00	0.75	1.25	26.25	2.00	1.00	1.00
	28.50	3.00	1.25	1.75	27.00	3.00	1.00	2.00	25.00	3.00	1.25	1.75	18.50	3.00	1.25	1.75	28.00	4.00	2.00	2.00
	29.25	4.00	2.00	2.00	28.25	4.00	2.00	2.00	25.75	4.00	2.00	2.00	19.50	4.00	2.00	2.00	29.75	5.00	3.00	2.00
	31.25	5.00	3.00	2.00	29.75	5.00	2.75	2.25	27.50	5.00	3.00	2.00	21.50	6.00	3.25	2.75	32.50	6.00	3.50	2.50
	33.75	6.00	3.75	2.25	33.00	6.00	3.25	2.75	30.00	6.00	3.25	2.75	24.50	7.00	4.00	3.00	.....	.....	.....	.....
	36.50	6.50	.....	.....	35.00	7.00	.....	.....	33.50	7.00	4.00	3.00	26.00	8.00	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	34.50	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

OXFORDDOWN.

Catalogue No. of samples..	159.				159.				159.				159.				159.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	26.50	1.00	0.25	0.75	19.00	1.00	0.00	1.00	15.50	1.00	0.25	0.75	19.50	1.00	0.25	0.75	20.75	1.00	0.25	0.75
	28.00	2.00	1.00	1.00	19.50	2.00	0.75	1.25	16.50	3.00	1.25	1.75	20.25	2.50	1.00	1.50	21.50	2.00	0.75	1.25
	28.50	3.00	1.50	1.50	20.75	3.00	1.00	2.00	17.25	4.00	2.00	2.00	21.50	4.00	2.00	2.00	22.25	3.00	1.25	1.75
	29.50	4.00	2.00	2.00	21.00	4.00	2.00	2.00	18.25	5.00	3.00	2.00	22.75	5.00	3.00	2.00	23.75	5.00	2.75	2.25
	30.75	5.00	3.00	2.00	22.25	5.00	3.00	2.00	19.50	6.00	3.50	2.50	24.50	6.00	3.75	2.25	26.25	6.00	3.25	2.75
	34.25	6.00	3.75	2.25	24.00	6.00	3.75	2.25	.....	.....	.....	.....	27.50	7.00	.....	.....	30.50	7.00	4.00	3.00
	38.25	7.00	4.25	2.75	26.50	7.00	4.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	43.25	8.00	.....	.....	29.00	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	18.25	1.00	0.25	0.75	27.75	1.00	0.00	1.00	23.50	1.00	0.25	0.75	14.00	1.00	0.00	1.00	26.25	1.00	0.25	0.75
	20.50	2.00	1.00	1.00	29.50	2.00	0.75	1.25	28.25	2.00	1.00	1.00	15.00	2.00	0.75	1.25	27.00	3.00	1.25	1.75
	21.75	3.00	1.50	1.50	30.50	3.75	.....	.....	29.00	3.00	1.25	1.75	16.25	4.00	2.00	2.00	28.25	4.00	2.00	2.00
Actual measurements in grams and millimeters.	22.75	4.00	2.00	2.00	.....	.....	.....	.....	30.50	5.00	2.75	2.25	17.25	5.00	2.75	2.25	29.75	5.00	2.75	2.25
	24.00	5.00	3.00	2.00	.....	.....	.....	.....	33.25	6.00	3.50	2.50	18.50	6.00	3.25	2.75	33.50	6.00	3.50	2.50
	25.50	6.00	3.75	2.25	.....	.....	.....	.....	36.75	7.00	4.00	3.00	21.25	7.00	.....	.....	37.25	7.00	4.00	3.00
	27.00	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	42.50	8.00	.....	.....
	21.50	1.00	0.25	0.75	18.50	1.00	0.25	0.75	26.50	1.00	0.25	0.75	11.75	1.00	0.25	0.75	17.50	1.00	0.00	1.00
	23.00	2.00	1.00	1.00	19.25	2.00	0.75	1.25	28.25	2.00	1.00	1.00	12.00	2.00	1.00	1.00	18.75	2.00	0.75	1.25
	23.75	3.00	1.25	1.75	20.75	4.00	2.00	2.00	29.50	3.00	1.25	1.75	13.25	4.00	2.00	2.00	19.25	3.00	1.25	1.75
	24.75	4.00	2.00	2.00	21.75	5.00	3.00	2.00	30.25	4.00	2.00	2.00	14.25	5.00	2.75	2.25	20.00	4.00	2.00	2.00
	26.75	5.00	3.00	2.00	23.75	6.00	3.50	2.50	31.50	5.00	3.00	2.00	15.50	6.00	3.75	2.25	21.00	5.00	2.50	2.50
	28.00	6.00	3.75	2.25	27.50	7.00	4.25	2.75	34.25	6.00	3.25	2.75	17.50	7.00	4.00	3.00	22.75	6.00	3.50	2.50
	32.25	7.00	4.00	3.00	29.75	8.00	5.00	3.00	39.75	7.00	4.25	2.75	19.25	8.00	5.00	3.00	25.75	7.00	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	43.25	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

OXFORDDOWN.

Catalogue No. of samples . . 159.

Actual measurements in grams and millimeters.

Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
17.00	1.00	0.25	0.75	26.25	1.00	0.25	0.75	11.25	1.00	0.25	0.75	22.50	1.00	0.25	0.75	15.00	1.00	0.25	0.75
18.50	2.00	1.00	1.00	26.25	3.00	1.25	1.75	11.50	2.00	0.75	1.25	23.75	2.00	1.00	1.00	16.25	2.00	1.00	1.00
19.25	3.00	1.25	1.75	28.25	5.00	2.75	2.25	13.25	3.00	1.00	2.00	24.25	3.00	1.25	1.75	17.00	4.00	2.00	2.00
20.50	5.00	2.50	2.50	31.00	6.00	3.50	2.50	12.75	4.00	2.00	2.00	25.25	4.00	2.00	2.00	18.75	5.00	2.75	2.25
22.25	6.00	3.50	2.50	34.75	7.00	4.25	2.75	13.75	5.00	2.75	2.25	26.75	5.00	3.00	2.00	20.25	6.00	3.25	2.75
25.00	7.00	4.00	3.00	37.00	8.00	.....	.....	14.75	6.00	3.25	2.75	29.50	6.00	3.25	2.75	21.75	7.00	.....	.....
28.00	7.75	.....	.....	.....	.....	.....	.....	15.50	6.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20.75	1.00	0.25	0.75	21.25	1.00	0.25	0.75	22.25	1.00	0.25	0.75	23.25	1.00	0.00	1.00	19.00	1.00	0.25	0.75
21.75	2.00	1.00	1.00	22.75	2.00	1.00	1.00	23.25	2.00	1.25	1.75	25.50	2.00	1.00	1.00	20.75	2.00	1.00	1.00
22.50	3.00	1.25	1.75	24.75	3.00	1.50	1.50	24.75	4.00	2.00	2.00	26.75	4.00	2.00	2.00	21.25	3.00	1.25	1.75
23.25	4.00	2.00	2.00	24.75	4.00	2.00	2.00	25.00	5.00	3.00	2.00	29.50	5.00	3.00	2.00	22.00	4.00	2.00	2.00
24.75	5.00	2.75	2.25	25.75	5.00	3.00	2.00	27.75	6.00	3.50	2.50	31.25	6.00	3.75	2.25	24.00	6.00	3.25	2.75
26.50	6.00	3.50	2.50	28.00	6.00	3.75	2.25	30.50	6.25	.....	.....	35.75	7.00	4.25	2.75	27.25	7.00	4.00	3.00
30.25	7.00	4.00	3.00	31.25	7.00	4.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....	29.75	8.00	.....	.....
32.50	8.00	.....	.....	33.50	7.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24.75	1.00	0.00	1.00	21.00	1.00	0.25	0.75	22.00	1.00	0.00	1.00	21.50	1.00	0.25	0.75	13.50	1.00	0.00	1.00
26.75	2.00	0.75	1.25	24.25	2.00	0.75	1.25	22.75	3.00	1.00	2.00	23.75	2.00	1.00	1.00	18.00	2.00	0.25	1.75
27.00	3.00	1.00	2.00	25.25	3.00	1.25	1.75	23.75	4.00	2.00	2.00	25.00	3.00	1.75	1.25	19.25	3.00	1.00	2.00
28.00	5.00	2.50	2.50	26.25	4.00	2.00	2.00	24.75	5.00	3.00	2.00	26.00	4.00	2.00	2.00	20.75	4.00	2.00	2.00
32.50	6.00	3.25	2.75	28.25	5.00	3.00	2.00	27.50	6.00	.....	.....	26.25	5.00	3.00	2.00	23.00	5.00	2.50	2.50
36.75	7.00	4.00	3.00	30.75	6.00	3.25	2.75	.....	.....	.....	.....	29.25	6.00	3.50	2.50	24.75	5.75	.....	.....
42.25	8.00	.....	.....	34.50	7.00	4.00	3.00	.....	.....	.....	.....	33.00	7.00	4.00	3.00	.....	.....	.....	.....
.....	.....	.....	.....	38.50	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

OXFORDDOWN.

Catalogue No. of samples . . 160.

Actual measurements in grams and millimeters.

Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
26.75	1.00	0.25	0.75	26.00	1.00	0.00	1.00	21.50	1.00	0.25	0.75	22.75	1.00	0.00	1.00	28.50	1.00	0.25	0.75
29.75	2.00	1.00	1.00	29.75	2.00	1.00	1.00	23.75	2.00	1.00	1.00	24.75	2.00	0.75	1.25	30.25	2.00	1.00	1.00
31.50	3.00	1.25	1.75	30.50	4.00	2.00	2.00	24.75	3.00	1.50	1.50	25.50	3.00	.....	.....	32.00	3.00	1.25	1.75
.....	.....	.....	.....	31.75	5.00	2.75	2.25	25.75	4.00	2.00	2.00	.....	.....	.....	.....	34.50	5.00	2.75	2.25
.....	.....	.....	.....	35.00	6.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	37.75	6.00	3.25	2.75
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	43.50	7.00	4.00	3.00
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	48.00	8.00	.....	.....
29.75	1.00	0.25	0.75	22.50	1.00	0.25	0.75	24.00	1.00	0.25	0.75	19.75	1.00	0.25	0.75	19.25	1.00	0.25	0.75
31.50	2.00	1.00	1.00	24.50	2.00	1.00	1.00	28.00	2.00	1.00	1.00	20.75	2.00	0.75	1.25	20.25	3.00	1.25	1.75
32.75	4.00	2.00	2.00	25.25	3.00	1.25	1.75	29.25	3.00	1.25	1.75	21.50	3.00	1.00	2.00	21.75	5.00	2.75	2.25
34.50	5.00	3.00	2.00	26.75	5.00	2.75	2.25	30.50	4.00	.....	.....	22.75	5.00	2.75	2.25	.....	.....	.....	.....
37.25	6.00	3.50	2.50	30.25	6.00	3.50	2.50	.....	.....	.....	.....	25.00	6.00	3.50	2.50	.....	.....	.....	.....
41.00	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	27.50	6.75	.....	.....	.....	.....	.....	.....
21.25	1.00	0.25	0.75	25.25	1.00	0.25	0.75	27.50	1.00	0.25	0.75	21.50	1.00	0.25	0.75	24.75	1.00	0.25	0.75
22.25	2.00	1.00	1.00	27.75	2.00	0.75	1.25	30.50	2.00	0.75	1.25	23.75	2.00	1.00	1.00	26.75	2.00	1.00	1.00
23.50	3.00	1.25	1.75	28.50	3.00	1.25	1.75	31.75	3.00	1.25	1.75	24.50	3.00	1.25	1.75	28.00	3.00	1.25	1.75
24.50	4.00	2.00	2.00	29.50	4.00	2.00	2.00	32.25	4.00	.....	.....	26.25	5.00	3.00	2.00	29.75	5.00	2.75	2.75
.....	.....	.....	.....	31.25	5.00	3.00	2.00	.....	.....	.....	.....	28.00	6.00	.....	.....	32.75	6.00	3.25	2.75
.....	.....	.....	.....	34.25	6.00	3.75	2.25	.....	.....	.....	.....	.....	.....	.....	.....	37.50	7.00	4.00	3.00
.....	.....	.....	.....	37.50	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	41.50	8.00	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

OXFORDDOWN.

Catalogue No. of samples..

160.				160.				160.				160.				160.			
Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
28.00	1.00	0.25	0.75	15.50	1.00	0.25	0.75	27.00	1.00	0.25	0.75	13.25	1.00	0.25	0.75	29.50	1.00	0.25	0.75
30.50	2.00	1.00	2.00	17.75	2.00	1.00	1.00	30.50	2.00	0.75	1.25	15.25	2.00	1.00	1.00	32.00	2.00	1.00	1.00
31.50	3.00	1.25	1.75	18.50	3.00	1.25	1.75	31.50	3.00	1.25	1.75	16.00	3.00	1.25	1.75	33.75	4.00	2.00	2.00
34.00	5.00	2.75	2.25	19.50	4.00	2.00	2.00	33.25	4.00	2.00	2.00	19.25	5.00	2.75	2.25	35.75	5.00	2.75	2.25
36.50	6.00	3.50	2.50	20.50	5.00	3.00	2.00	34.75	5.00	2.75	2.25	18.75	6.00	3.75	2.25	39.50	6.00	.....	.....
42.00	7.00	.....	.....	22.00	6.00	3.75	2.25	38.25	6.00	3.25	2.75	19.50	6.75	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	24.50	7.00	4.25	2.75	43.50	7.00	4.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	26.50	7.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21.50	1.00	0.00	1.00	27.25	1.00	0.25	0.75	18.75	1.00	0.25	0.75	20.00	1.00	0.25	0.75	28.75	1.00	0.25	0.75
22.75	2.00	0.75	1.25	28.50	2.00	0.75	0.25	21.00	2.00	0.75	1.25	21.50	2.00	0.75	1.25	29.75	2.00	1.00	1.00
23.50	3.00	1.00	2.00	29.53	3.00	1.25	1.75	22.25	3.00	1.25	1.75	22.50	3.00	1.25	1.75	30.75	3.00	1.25	1.75
24.50	4.00	2.00	2.00	30.75	4.00	2.00	2.00	23.75	5.00	2.75	2.25	23.50	4.00	2.00	2.00	31.25	4.00	2.00	2.00
25.75	5.00	2.75	2.25	32.75	5.00	3.00	2.00	25.75	6.00	3.75	2.25	24.50	5.00	2.75	2.25	33.25	5.00	2.75	2.25
29.00	6.00	3.50	2.50	36.50	6.00	3.75	2.25	28.50	7.00	.....	.....	25.50	5.75	.....	.....	39.50	6.00	.....	.....
.....	.....	.....	.....	39.25	6.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30.75	1.00	0.25	0.75	23.50	1.00	0.25	0.75	19.50	1.00	0.00	1.00	23.25	1.00	0.25	0.75	22.75	1.00	0.00	1.00
34.50	2.00	1.00	1.00	27.50	2.00	0.75	1.25	21.75	2.00	0.75	1.25	26.25	2.00	0.75	1.25	24.25	2.00	0.75	1.25
35.75	4.00	2.00	2.00	28.50	3.00	1.25	1.75	22.25	3.00	1.25	1.75	27.25	3.00	1.25	1.75	25.00	3.00	1.25	1.75
38.00	5.00	2.75	2.25	29.50	4.00	2.00	2.00	23.25	4.00	2.00	2.00	28.50	4.00	2.00	2.00	26.25	4.00	2.00	2.00
42.00	6.00	3.75	2.75	31.25	5.00	3.00	2.00	.....	.....	.....	.....	29.50	5.00	2.75	2.25	28.25	5.00	3.00	2.00
48.25	7.00	.....	.....	34.25	6.00	3.50	2.50	.....	.....	.....	.....	32.95	6.00	3.50	2.50	30.25	6.00	3.25	2.75
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	36.00	7.00	.....	.....	34.75	7.00	.....	.....

Actual measurements in grams and millimeters.

OXFORDDOWN.

Catalogue No. of samples..

161.				161.				161.				161.				161.			
Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
20.50	1.00	0.25	0.75	20.00	1.00	0.00	1.00	15.50	1.00	0.50	0.50	17.50	1.00	0.25	0.75	15.75	1.00	0.25	0.75
22.00	2.00	0.75	1.25	21.25	3.00	1.00	2.00	19.25	2.00	1.00	1.00	18.75	2.00	0.75	1.25	16.75	2.00	1.00	1.00
23.50	4.00	2.00	2.00	22.75	5.00	2.50	2.50	20.50	3.00	1.25	1.75	19.50	3.00	1.25	1.75	18.50	4.00	2.00	2.00
25.75	6.00	3.00	3.00	25.75	6.00	3.25	2.75	21.50	5.00	2.50	2.50	21.50	4.75	.....	.....	19.75	5.00	2.75	2.25
.....	.....	.....	.....	28.25	6.75	.....	.....	23.25	6.00	3.25	2.75	.....	.....	.....	.....	21.50	6.00	3.50	2.50
.....	.....	.....	.....	.....	.....	.....	.....	26.00	7.00	.....	.....	.....	.....	.....	.....	23.75	7.00	4.00	3.00
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	26.50	8.00	.....	.....
19.25	1.00	0.25	0.75	17.75	1.00	0.25	0.75	17.75	1.00	0.25	0.75	13.00	1.00	0.50	0.50	18.75	1.00	0.00	1.00
21.00	2.00	0.75	1.25	19.50	2.00	1.00	1.00	19.50	2.00	1.00	1.00	13.75	2.00	1.00	1.00	20.50	2.00	0.75	1.25
21.75	3.00	1.25	1.75	20.75	4.00	2.00	2.00	20.75	3.75	.....	.....	15.50	3.00	.....	.....	21.00	3.00	1.00	2.00
22.50	4.00	2.00	2.00	22.25	5.00	2.75	2.25	.....	.....	.....	.....	.....	.....	.....	.....	22.75	5.00	2.25	2.75
23.75	5.00	2.75	2.25	24.00	6.00	3.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....	25.00	6.00	3.00	[illegible]
25.25	6.00	3.25	2.75	27.50	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	28.00	7.00	4.00	3.00
25.50	6.50	.....	.....	31.25	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	31.50	8.00	5.00	3.00
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	34.00	9.00	.....	.....
15.75	1.00	0.25	0.75	16.50	1.00	0.25	0.75	16.50	1.00	0.25	0.75	14.75	1.00	0.25	0.75	20.50	1.00	0.25	0.75
17.75	2.00	0.75	1.25	17.75	2.00	0.75	1.25	19.75	2.00	1.00	1.00	17.75	2.00	1.00	.....	21.75	2.00	0.75	1.25
18.25	3.00	1.00	2.00	18.25	3.00	1.00	2.00	20.50	3.00	1.25	1.75	.....	.....	.....	.....	22.75	4.00	2.00	2.00
19.25	4.00	2.00	2.00	19.25	4.00	2.00	2.00	21.50	4.00	2.00	[illegible]	.....	.....	.....	.....	23.50	5.00	.....	.....
20.25	5.00	2.75	2.25	21.00	5.25	3.00	2.25	23.50	6.00	3.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....
22.50	6.00	3.50	2.50	22.00	6.00	3.25	2.75	26.50	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	26.00	7.00	.....	.....	29.25	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Actual measurements in grams and millimeters.

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

OXFORDDOWN.

Actual measurements in grams and millimeters.

Catalogue No. of samples..	161.				161.				161.				161.				161.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	14.75	1.00	0.00	1.00	16.75	1.00	0.25	0.75	14.75	1.00	0.25	0.75	13.50	1.00	0.00	1.00	19.50	1.00	0.25	0.75
	15.25	2.00	1.00	1.00	17.75	2.00	1.00	1.00	19.25	2.00	1.00	1.00	14.75	2.00	0.75	1.25	22.50	2.00	1.00	1.00
	16.25	3.00	1.25	1.75	19.50	4.00	2.00	2.00	18.50	3.00	1.25	1.75	15.25	3.00	1.00	2.00	23.25	3.00	1.25	1.75
	17.25	5.00	2.50	2.50	20.50	6.00	3.25	2.75	19.50	4.00	2.00	2.00	16.50	5.00	.....	.....	24.25	4.00	2.00	2.00
	18.50	6.00	3.25	2.75	22.25	6.00	3.50	2.50	20.25	5.00	2.75	2.25	.....	.....	.....	.....	25.25	5.00	2.75	2.25
	.....	.....	.....	.....	23.50	7.00	4.00	3.00	21.75	6.00	3.50	2.50	.....	.....	.....	.....	27.25	6.00	3.50	2.50
	.....	.....	.....	.....	25.50	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	30.50	7.00	4.00	3.00
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	33.50	8.00	.....	.....
	16.50	1.00	0.25	0.75	14.00	1.00	0.25	0.75	17.50	1.00	0.25	1.00	22.25	1.00	0.25	0.75	15.50	1.00	0.25	0.75
	18.50	2.00	0.75	1.25	17.50	2.00	0.75	1.25	18.25	2.00	0.75	1.25	23.25	2.00	0.75	1.25	17.50	2.00	1.00	1.00
	.....	.....	.....	.....	18.50	3.00	1.00	2.00	19.50	3.00	1.25	1.75	24.00	3.00	1.00	2.00	18.75	4.00	2.00	2.00
	.....	.....	.....	.....	21.25	5.00	2.75	2.25	23.50	4.00	2.00	2.00	25.75	5.00	2.50	2.50	19.75	5.00	2.75	2.25
	.....	.....	.....	.....	21.25	6.00	.....	.....	24.50	5.00	3.00	2.00	28.75	6.00	3.25	2.75	21.75	6.00	3.25	2.75
	.....	.....	.....	.....	.....	.....	.....	.....	25.75	6.00	3.50	2.50	31.25	7.00	4.00	3.00	24.25	7.00	4.00	3.00
	.....	.....	.....	.....	.....	.....	.....	.....	24.00	6.75	.....	.....	30.75	8.00	5.00	3.00	27.00	8.00	.....	.....
	13.75	1.00	0.25	0.75	11.50	1.00	0.25	0.75	12.00	1.00	0.25	0.75	20.50	1.00	0.00	1.00	15.75	1.00	0.00	1.00
	14.25	2.00	0.75	1.25	13.00	2.00	0.75	1.25	13.75	2.00	1.00	1.00	21.75	2.00	0.75	1.25	17.25	2.00	0.75	1.25
	15.00	3.00	2.00	2.00	14.75	3.00	1.25	1.75	19.75	3.00	1.25	1.75	22.50	3.00	1.25	1.75	18.50	4.00	2.00	2.00
	16.25	5.00	2.50	2.50	14.75	5.00	2.75	2.25	20.50	4.00	2.00	2.00	24.50	5.00	2.75	2.25	19.25	5.00	2.50	2.50
	18.00	6.00	.....	.....	15.50	6.00	.....	.....	21.75	6.00	3.25	2.75	26.50	6.00	3.25	2.75	20.00	6.00	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	23.00	7.00	.....	.....	30.50	7.00	4.00	3.00	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	32.50	8.00	.....	.....	.....	.....	.....	.....

MERINO.

Actual measurements in grams and millimeters.

Catalogue No. of samples..	86.				86.				86.				86.				86.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	10.25	1.00	0.00	1.00	11.50	1.00	0.00	1.00	8.75	1.00	0.25	0.75	5.00	1.00	0.25	0.75	2.50	1.00	0.25	0.75
	12.25	2.00	0.75	1.25	13.75	2.00	0.75	1.25	10.25	2.00	1.00	1.00	5.75	2.00	1.00	1.00	3.50	2.00	0.75	1.25
	13.25	3.00	1.25	1.75	14.75	3.00	1.00	2.00	11.25	3.00	1.25	1.75	6.25	3.00	1.25	1.75	3.75	2.50	.....	.....
	14.00	4.00	2.00	2.00	16.00	4.00	.....	.....	12.25	4.00	2.00	2.00	6.25	3.25	.....	.....	.....	.....	.....	.....
	16.00	5.00	2.75	2.25	.....	.....	.....	.....	12.75	5.00	2.75	2.25	.....	.....	.....	.....	.....	.....	.....	.....
	18.50	6.00	3.25	2.75	.....	.....	.....	.....	13.75	6.00	3.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	15.75	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	15.75	7.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	3.50	1.00	0.00	1.00	9.50	1.00	0.25	0.75	7.00	1.00	0.25	0.75	11.75	1.00	0.00	1.00	8.25	1.00	0.00	1.00
	3.50	2.00	0.75	1.25	10.50	2.00	0.75	1.25	8.00	2.00	1.00	1.00	13.75	2.00	0.75	1.25	9.50	2.00	0.75	1.25
	3.75	3.00	1.00	2.00	11.75	3.00	1.25	1.75	8.75	3.00	1.75	1.25	14.75	3.00	1.25	1.75	10.00	3.00	1.25	1.75
	4.00	4.00	1.75	2.25	13.00	4.00	2.00	2.00	9.75	4.00	2.00	2.00	16.25	4.00	2.00	2.00	11.00	4.00	2.00	2.00
	4.25	5.00	2.25	2.75	14.25	5.00	.....	.....	10.50	5.00	2.75	2.25	16.25	4.25	.....	.....	11.75	5.00	2.75	2.25
	4.50	6.00	3.00	3.00	.....	.....	.....	.....	11.25	6.00	3.25	2.75	.....	.....	.....	.....	12.75	6.00	3.25	2.75
	5.25	7.00	4.00	3.00	.....	.....	.....	.....	11.75	6.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	5.50	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	2.75	1.00	0.25	0.75	2.25	1.00	0.25	0.75	12.25	1.00	0.00	1.00	8.75	1.00	0.00	1.00	4.00	1.00	0.00	1.00
	3.75	2.00	0.75	1.25	3.25	2.00	0.75	1.25	14.75	2.00	0.75	1.25	10.00	2.00	1.00	1.00	5.25	2.00	0.75	1.25
	4.25	3.00	1.25	1.75	3.75	3.00	1.25	1.75	16.00	3.00	1.25	1.75	11.50	3.00	1.25	1.75	5.75	3.00	1.25	1.75
	4.50	4.00	2.00	2.00	3.75	4.00	2.00	2.00	17.00	4.00	2.00	2.00	12.50	4.00	2.00	2.00	6.50	4.00	.....	.....
	4.75	5.00	2.75	2.25	4.00	5.00	2.75	2.25	18.50	4.75	.....	.....	13.75	5.00	2.75	2.25	.....	.....	.....	.....
	5.25	6.00	3.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....	14.75	6.00	.....	.....	.....	.....	.....	.....
	5.50	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	5.75	7.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

MERINO.

Catalogue No. of samples..	87.				87.				87.				87.				87.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	7.25	1.00	0.00	1.00	2.75	1.00	0.00	1.00	3.50	1.00	0.00	1.00	3.50	1.00	0.00	1.00	5.25	1.00	0.00	1.00
	7.75	2.00	0.75	1.25	4.25	2.00	0.75	1.25	4.75	2.00	0.75	1.25	4.50	2.00	0.75	1.25	6.00	2.00	0.75	1.25
	8.25	3.00	1.25	1.75	4.50	3.00	1.00	2.00	5.00	3.00	1.00	2.00	4.75	3.00	1.25	1.75	6.25	3.00	1.25	1.75
	8.75	4.00	2.00	2.00	5.00	4.00	2.00	2.00	5.25	4.00	2.00	2.00	5.25	4.00	2.00	2.00	6.25	4.00	2.00	2.00
	9.25	5.00	2.75	2.25	5.50	5.00	2.75	2.25	6.00	5.00	2.75	2.25	5.50	5.00	2.75	2.25	7.25	5.00	2.75	2.25
	10.25	6.00	3.25	2.75	.....	.....	.....	.....	6.75	6.00	3.25	2.75	5.75	5.25	.....	.....	7.75	6.00	3.50	2.50
	11.75	7.00	4.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8.75	7.00	4.25	2.75
	12.50	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	3.75	1.00	0.00	1.00	3.75	1.00	0.00	1.00	3.75	1.00	0.00	1.00	4.50	1.00	0.00	1.00	4.00	1.00	0.00	1.00
	4.25	2.00	0.75	1.25	4.25	2.00	0.75	1.25	4.75	2.00	0.75	1.25	4.75	2.00	0.25	1.75	4.50	2.00	0.75	1.25
	4.50	2.25	.....	.....	4.50	3.00	1.25	1.75	5.25	3.00	1.00	2.00	5.25	3.00	1.00	2.00	4.75	3.00	1.00	2.00
	.....	.....	.....	.....	4.75	4.00	2.00	2.00	5.75	3.75	.....	.....	6.00	3.75	.....	.....	5.25	3.50	.....	.....
	.....	.....	.....	.....	5.25	5.00	2.75	2.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	5.75	6.00	3.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	2.75	1.00	0.00	1.00	4.25	1.00	0.00	1.00	4.50	1.00	0.00	1.00	3.50	1.00	0.25	0.75	4.25	1.00	0.00	1.00
	3.25	2.00	0.75	1.25	4.75	2.00	0.75	1.25	4.25	2.00	0.75	1.25	4.25	2.00	1.00	1.00	5.25	2.00	0.75	1.25
	3.50	3.00	1.25	1.75	5.25	3.00	1.25	1.75	5.75	3.00	1.25	1.75	4.75	3.00	1.25	1.75	5.25	2.25	.....	.....
	3.75	4.00	2.00	2.00	5.25	4.00	2.00	2.00	6.00	4.00	2.00	2.00	5.00	4.00	2.00	2.00	.....	.....	.....	.....
	4.25	5.00	2.75	2.25	5.75	5.00	2.75	2.25	6.25	5.00	2.75	2.25	5.50	5.00	.....	.....	.....	.....	.....	.....
	4.50	6.00	3.25	2.75	6.25	5.75	.....	.....	7.00	6.00	3.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....

MERINO.

Catalogue No. of samples..	88.				88.				88.				88.				88.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	5.50	1.00	0.00	1.00	3.50	1.00	0.00	1.00	4.25	1.00	0.00	1.00	4.75	1.00	0.00	1.00	7.75	1.00	0.25	0.75
	7.75	2.00	0.25	1.75	5.25	2.00	0.25	1.75	5.50	2.00	0.75	1.25	5.75	2.00	0.75	1.25	8.50	2.00	1.00	1.00
	8.75	3.00	1.00	2.00	6.00	3.00	.....	.....	6.00	3.00	1.25	1.75	6.00	3.00	1.25	1.75	9.50	3.00	1.50	1.50
	9.50	4.00	.....	.....	.....	.....	.....	.....	6.50	4.00	2.00	2.00	6.50	4.00	2.00	2.00	9.75	4.00	2.00	2.00
	.....	.....	.....	.....	.....	.....	.....	.....	7.25	5.00	2.75	2.25	7.25	4.75	.....	.....	10.50	5.00	2.75	2.25
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11.25	6.00	3.50	2.50
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12.50	7.00	4.25	2.75
	4.00	1.00	0.00	1.00	2.75	1.00	0.00	1.00	5.25	1.00	0.00	1.00	3.75	1.00	0.00	1.00	3.75	1.00	0.00	1.00
	4.50	2.00	0.75	1.25	3.75	2.00	0.50	1.50	5.75	2.00	0.75	1.25	4.50	2.00	1.75	1.25	4.25	2.00	0.75	1.25
	5.00	3.00	1.25	1.75	4.00	3.00	1.00	2.00	5.75	2.25	.....	.....	5.25	3.00	1.25	1.75	4.75	3.00	1.25	1.75
	5.50	4.00	.....	.....	4.50	4.00	2.00	2.00	.....	.....	.....	.....	5.75	4.00	2.00	2.00	.....	.....	.....	.....
	.....	.....	.....	.....	5.00	5.00	.....	.....	.....	.....	.....	.....	6.50	5.00	.....	.....	.....	.....	.....	.....
	5.50	1.00	0.00	1.00	3.75	1.00	0.00	1.00	2.25	1.00	0.00	1.00	1.75	1.00	0.00	1.00	2.50	1.00	0.25	0.75
	7.50	2.00	0.50	1.50	5.25	2.00	0.50	1.50	3.25	2.00	0.25	1.75	2.25	2.00	0.75	1.25	3.75	2.00	0.75	1.25
	8.75	3.00	1.00	2.00	6.00	2.75	.....	.....	3.50	3.00	1.00	2.00	2.50	3.00	1.25	1.75	4.25	3.00	1.25	1.75
	.....	.....	.....	.....	.....	.....	.....	.....	4.00	4.00	1.75	2.25	2.50	4.00	2.00	2.00	4.50	4.00	2.00	2.00
	.....	.....	.....	.....	.....	.....	.....	.....	4.25	4.00	.....	.....	2.75	5.00	2.75	2.25	5.00	5.00	2.75	2.25
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.00	5.75	.....	.....	5.50	6.00	3.25	2.75
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.50	6.25	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

MERINO.

Catalogue No. of samples ..

Actual measurements in grams and millimeters.

89.				89.				89.				89.				89.			
Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
grms.	mm.	mm.	mm.	grms.	mm.	mm.	mm.	grms.	mm.	mm.	mm.	grms.	mm.	mm.	mm.	grms.	mm.	mm.	mm.
3.75	1.00	0.25	0.75	4.50	1.00	0.25	0.75	3.50	1.00	0.00	1.00	4.50	1.00	0.00	1.00	4.50	1.00	0.00	1.00
4.50	2.00	1.00	1.00	5.00	2.00	0.75	1.25	3.75	2.00	0.75	1.25	6.00	2.00	0.75	1.25	5.50	2.00	0.75	1.25
4.75	3.00	1.25	1.75	5.25	3.00	1.25	1.75	3.75	3.00	1.25	1.75	6.75	3.00	1.00	2.00	5.75	3.00	1.00	2.00
5.25	4.00	2.00	2.00	5.75	4.00	2.00	2.00	4.25	4.00	2.00	2.00	7.25	4.00	.....	.....	6.25	4.00	1.75	2.25
5.50	5.00	2.75	2.25	6.25	5.00	2.75	2.25	4.50	5.00	2.25	2.25	.....	.....	.....	.....	6.35	5.00	2.50	2.50
6.00	6.00	3.25	2.75	6.75	6.00	3.25	2.75	4.75	6.00	3.25	2.75	.....	.....	.....	.....	7.75	6.00	3.00	3.00
6.75	7.00	4.00	3.00	7.50	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	8.25	7.00	.....	.....
7.50	8.00	.....	.....	8.25	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5.25	1.00	0.00	1.00	4.25	1.00	0.00	1.00	5.25	1.00	0.25	0.75	3.75	1.00	0.00	1.00	3.75	1.00	0.75	0.25
5.75	2.00	0.75	1.25	4.50	2.00	0.75	1.25	6.25	2.00	1.00	1.00	4.25	2.00	0.75	1.25	4.25	2.00	1.00	1.00
6.50	3.00	1.25	1.75	4.75	3.00	1.25	1.75	6.75	3.00	1.25	1.75	4.50	3.00	1.00	2.00	4.50	3.00	1.25	1.75
7.25	4.00	2.00	2.00	5.00	4.00	2.00	2.00	7.25	4.00	2.00	2.00	4.50	4.00	2.00	2.00	4.75	4.00	2.00	2.00
7.75	5.00	2.75	2.25	5.25	5.00	2.75	2.25	7.75	5.00	2.75	2.25	4.75	5.00	2.50	2.50	5.25	5.00	2.75	2.25
8.25	5.50	.....	.....	6.25	6.00	3.25	2.75	8.25	5.50	.....	.....	5.25	6.00	3.25	2.75	5.75	6.00	3.55	2.75
.....	.....	.....	.....	6.75	6.75	.....	.....	.....	.....	.....	.....	5.75	6.75	.....	.....	6.50	7.00	4.00	3.00
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6.75	7.75	.....	.....
3.25	1.00	0.00	1.00	3.50	1.00	0.00	1.00	7.25	1.00	0.25	0.75	2.25	1.00	0.00	1.00	6.50	1.00	0.00	1.00
3.50	2.00	1.00	1.00	3.75	2.00	0.75	1.25	8.25	2.00	0.75	1.25	3.25	2.00	0.25	1.75	7.00	2.00	0.75	1.25
3.75	3.00	1.25	1.75	4.25	3.00	1.25	1.75	8.50	3.00	1.00	2.00	4.25	3.00	0.75	2.25	7.50	3.00	1.25	1.75
4.25	4.00	2.00	2.00	4.50	4.00	2.00	2.00	9.25	4.00	2.00	2.00	5.00	4.00	1.25	2.75	7.75	4.00	2.00	2.00
4.25	5.00	2.75	2.25	4.75	5.00	2.75	2.25	10.00	5.00	2.75	2.25	5.75	5.00	2.00	3.00	8.00	5.00	2.75	2.25
4.75	6.00	3.25	2.75	5.25	6.00	3.25	2.75	10.50	6.00	.....	.....	.....	.....	.....	.....	8.75	6.00	3.25	2.75
4.75	6.25	.....	.....	5.75	6.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10.25	7.00	4.00	3.00
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10.75	7.25	.....	.....

MERINO.

Catalogue No. of samples ..

Actual measurements in grams and millimeters.

90.				90.				90.				90.				90.			
Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
grms.	mm.	mm.	mm.	grms.	mm.	mm.	mm.	grms.	mm.	mm.	mm.	grms.	mm.	mm.	mm.	grms.	mm.	mm.	mm.
3.75	1.00	0.00	1.00	4.00	1.00	0.25	0.75	4.50	1.00	0.00	1.00	5.00	1.00	0.00	1.00	4.50	1.00	0.00	1.00
4.50	2.00	1.00	1.00	5.25	2.00	1.00	1.00	5.50	2.00	0.75	1.25	5.50	2.00	0.75	1.25	5.25	2.00	0.75	1.25
5.25	3.00	1.25	1.75	6.00	3.00	1.25	1.75	6.25	3.00	1.25	1.75	6.25	2.75	.....	.....	5.75	3.00	1.25	1.75
.....	.....	.....	.....	6.00	3.25	.....	.....	6.50	4.00	.....	.....	.....	.....	.....	.....	6.50	4.00	2.00	2.00
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7.00	5.00	2.75	2.25
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7.25	5.00	.....	.....
3.25	1.00	0.00	1.00	2.75	1.00	0.00	1.00	5.75	1.00	0.25	0.75	4.00	1.00	0.00	1.00	4.50	1.00	0.00	1.00
3.75	2.00	1.00	1.00	3.75	2.00	0.75	1.25	7.25	2.00	1.00	1.00	4.50	2.00	0.75	1.25	6.25	2.00	0.50	1.50
4.00	3.00	1.25	1.75	4.50	3.00	1.00	2.00	8.25	3.00	1.50	1.50	5.25	3.00	1.00	2.00	6.50	2.00	1.00	2.00
4.25	4.00	2.00	2.00	4.75	4.00	1.75	2.25	8.75	3.50	.....	.....	5.50	4.00	2.00	2.00	6.75	3.25	.....	.....
4.75	4.75	.....	.....	5.25	4.50	.....	.....	.....	.....	.....	.....	5.50	4.25	.....	.....	.....	.....	.....	.....
8.50	1.00	0.25	0.75	2.25	1.00	0.25	0.75	5.00	1.00	0.25	0.75	3.75	1.00	0.00	1.00	7.50	1.00	0.25	0.75
9.50	2.00	1.00	1.00	3.25	2.00	1.00	1.00	6.00	2.00	1.00	1.00	4.50	2.00	0.75	1.25	8.50	2.00	1.00	1.00
10.50	3.00	1.25	1.75	3.75	3.00	1.25	1.75	6.75	3.00	1.50	1.50	5.25	3.00	1.25	1.75	10.25	3.00	1.25	1.75
11.50	4.00	2.00	2.00	3.75	3.25	.....	.....	7.50	3.75	.....	.....	5.25	3.50	.....	.....	11.00	4.00	2.00	2.00
12.25	5.00	2.75	2.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12.25	4.00	.....	.....
14.00	6.00	3.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14.75	6.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

MERINO.

Catalogue No. of samples..	[illegible]				96.				96.				[illegible]				96.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	[illegible]	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	2.25	1.00	0.00	1.00	1.75	1.00	0.25	0.75	1.25	1.00	0.25	0.75	2.25	1.00	0.00	1.00	2.75	1.00	0.00	1.00
	2.50	2.00	0.50	0.50	2.25	2.00	0.75	1.25	2.00	2.00	0.75	1.25	2.50	2.00	0.75	1.25	3.00	2.00	0.75	1.25
	2.75	0.75	.....	.....	2.25	3.00	1.25	1.75	2.25	3.00	1.25	1.75	2.50	3.00	1.25	1.75	3.25	3.00	1.25	1.75
	.....	.....	.....	.....	2.50	4.00	2.00	2.00	2.50	4.00	2.00	2.00	2.75	4.00	2.00	2.00	3.50	4.00	2.00	2.00
	.....	.....	.....	.....	2.50	5.00	2.50	2.50	.....	.....	.....	.....	3.00	5.00	2.50	2.50	3.75	5.00	2.75	2.25
	.....	.....	.....	.....	2.75	6.00	3.00	3.00	.....	.....	.....	.....	3.25	6.00	3.25	2.75	4.00	6.00	3.25	2.75
	.....	.....	.....	.....	2.75	6.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.25	6.50	.....	.....
	1.50	1.00	0.00	1.00	1.75	1.00	0.25	0.75	2.25	1.00	0.00	1.00	1.50	1.00	0.00	1.00	2.00	1.00	0.00	1.00
	1.50	2.00	0.75	1.25	1.75	2.00	0.75	1.25	2.50	2.00	0.75	1.25	1.75	2.00	0.50	1.50	2.50	2.00	0.50	1.50
	1.50	3.00	1.25	1.75	1.75	3.00	1.25	1.75	2.50	3.00	1.25	1.75	2.00	3.00	1.00	2.00	2.75	3.00	1.00	2.00
	1.75	4.00	2.00	2.00	2.00	4.00	2.00	2.00	2.75	4.00	2.00	2.00	2.25	4.00	1.75	2.25	2.75	4.00	1.75	2.25
	2.00	5.00	.....	.....	2.25	5.00	2.75	2.25	3.25	5.00	2.50	2.50	.....	.....	.....	.....	3.25	5.00	2.50	[illegible]
	.....	.....	.....	.....	2.25	6.00	3.25	2.75	3.50	6.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	2.00	1.00	0.00	1.00	2.50	1.00	0.25	0.75	2.00	1.00	0.00	1.00	2.25	1.00	0.00	1.00	2.00	1.00	0.25	0.75
	2.75	2.00	0.50	1.50	2.75	2.00	0.75	1.25	2.25	2.00	0.75	1.25	2.25	2.00	0.75	1.25	2.50	2.00	0.75	1.25
	3.00	3.00	1.00	2.00	3.25	3.00	1.25	1.75	2.25	3.00	1.25	1.75	2.50	3.00	1.25	1.75	2.75	3.00	1.25	1.75
	3.25	4.00	2.00	2.00	3.50	4.00	2.00	2.00	2.50	4.00	2.00	2.00	2.75	4.00	2.00	2.00	2.75	4.00	2.00	2.00
	3.25	5.00	2.50	2.50	3.50	5.00	2.75	2.25	2.75	5.00	2.75	2.25	3.00	5.00	2.75	2.25	.....	.....	.....	.....
	3.50	5.25	.....	.....	3.75	6.00	3.25	2.75	2.75	6.00	3.25	2.75	3.25	6.00	3.25	2.75	.....	.....	.....	.....
	.....	.....	.....	.....	4.00	7.00	.....	.....	3.00	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....

MERINO.

Catalogue No. of samples..	97.				97.				97.				97.				97.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	[illegible]	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	[illegible]
	2.25	1.00	0.00	1.00	1.75	1.00	0.00	1.00	1.75	1.00	0.00	1.00	1.75	1.00	0.00	1.00	1.50	1.00	0.00	1.00
	2.75	2.00	1.00	1.00	2.25	2.00	0.50	1.50	2.25	2.00	0.75	1.25	2.00	2.00	0.50	1.50	2.00	2.00	0.75	1.25
	3.00	3.00	1.50	1.50	2.50	3.00	1.00	2.00	2.25	3.00	1.25	1.75	2.25	3.00	1.00	2.00	2.25	3.00	1.25	1.75
	3.25	4.00	2.00	2.00	2.75	3.50	.....	.....	2.50	4.00	2.00	2.00	2.50	3.75	.....	.....	2.50	4.00	.....	.....
	3.50	5.00	2.50	2.50	.....	.....	.....	.....	2.50	5.00	2.50	2.50	.....	.....	.....	.....	.....	.....	.....	.....
	3.75	6.00	3.50	2.50	.....	.....	.....	.....	3.00	6.00	3.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....
	4.25	7.00	4.50	2.50	.....	.....	.....	.....	3.25	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....
	4.50	7.50	.....	.....	.....	.....	.....	.....	3.75	7.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	2.25	1.00	0.00	1.00	2.25	1.00	0.75	0.75	2.50	1.00	0.00	1.00	2.00	1.00	0.00	1.00	2.50	1.00	0.25	0.75
	2.50	2.00	0.75	1.25	2.50	2.00	0.75	1.25	2.75	2.00	0.75	1.25	2.25	2.00	0.75	1.25	2.75	2.00	0.75	1.25
	2.75	3.00	1.25	1.75	2.50	3.00	1.50	1.50	3.00	3.00	1.25	1.75	2.50	3.00	1.25	1.75	3.00	3.00	1.25	1.75
	2.75	4.00	2.00	2.00	2.75	4.00	2.00	2.00	3.00	3.25	.....	.....	2.75	4.00	2.00	2.00	3.25	4.00	2.00	2.00
	3.25	5.00	2.75	2.25	2.75	5.00	2.75	2.25	.....	.....	.....	.....	2.75	5.00	2.75	2.25	3.50	5.00	2.75	2.25
	3.75	5.50	.....	.....	3.25	[illegible]	3.25	2.75	.....	.....	.....	.....	3.25	6.00	3.25	2.75	3.75	6.00	3.25	2.75
	.....	.....	.....	.....	3.50	7.00	4.00	3.00	.....	.....	.....	.....	3.50	6.25	.....	.....	4.25	7.00	4.00	3.00
	.....	.....	.....	.....	4.25	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.25	7.25	.....	.....
	2.25	1.00	0.25	0.75	2.00	1.00	0.25	0.75	1.75	1.00	0.00	1.00	1.50	1.00	0.00	1.00	2.25	1.00	0.00	1.00
	2.50	2.00	0.75	1.25	2.25	2.00	0.75	1.25	2.50	2.00	0.25	1.75	2.25	2.00	0.75	1.25	2.50	2.00	0.75	1.25
	2.75	3.00	1.25	1.75	2.50	3.00	1.25	1.75	2.75	3.00	1.00	2.00	2.50	3.00	1.00	2.00	2.50	3.00	1.25	1.75
	.....	.....	.....	.....	2.75	4.00	2.00	2.00	3.00	3.50	.....	.....	2.75	4.00	2.00	2.00	3.00	4.00	2.00	2.00
	.....	.....	.....	.....	2.75	5.00	2.75	2.25	.....	.....	.....	.....	3.00	4.75	.....	.....	3.00	5.00	2.75	2.25
	.....	.....	.....	.....	3.00	5.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3.25	6.00	3.00	3.00
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.00	6.75	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

MERINO.

Catalogue No. of samples..	99.				99.				99.				99.				99.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	2.25	1.00	0.25	0.75	2.75	1.00	0.00	1.00	2.50	1.00	0.00	1.00	3.50	1.00	0.25	0.75	3.50	1.00	0.25	0.75
	2.50	2.00	1.00	1.00	3.25	2.00	1.00	1.00	2.75	2.00	0.75	1.25	3.75	2.00	0.75	1.25	4.50	2.00	1.00	1.00
	2.75	3.00	1.25	1.75	3.50	3.00	1.25	1.75	3.25	3.00	1.25	1.75	4.00	3.00	1.25	1.75	4.75	3.00	1.50	1.50
	3.00	4.00	2.00	2.00	3.75	4.00	2.00	2.00	3.25	4.00	2.00	2.00	4.25	4.00	2.00	2.00	5.25	4.00	2.00	2.00
	.....	.....	.....	.....	4.00	5.00	.....	.....	3.50	5.00	2.75	2.25	4.50	5.00	2.75	2.25	5.50	5.00	2.75	2.25
	.....	.....	.....	.....	.....	.....	.....	.....	3.75	6.00	3.50	2.50	5.00	6.00	3.25	2.75	5.75	6.00	3.50	2.50
	.....	.....	.....	.....	.....	.....	.....	.....	4.25	6.75	.....	.....	5.50	7.00	4.25	2.75	6.00	7.00	4.25	2.75
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.75	7.75	.....	.....	7.00	8.00	.....	.....
	2.50	1.00	0.00	1.00	2.00	1.00	0.00	1.00	2.75	1.00	0.00	1.00	3.75	1.00	0.25	0.75	4.50	1.00	0.25	0.75
	2.75	2.00	1.00	1.00	2.50	2.00	1.00	1.00	3.25	2.00	0.75	1.25	4.25	2.00	1.00	1.00	5.25	2.00	1.00	1.00
	3.25	3.00	1.50	1.50	2.75	3.00	1.25	1.75	3.75	3.00	1.25	1.75	4.50	3.00	1.25	1.75	5.50	3.00	1.25	1.75
	3.50	4.00	2.00	2.00	2.75	4.00	2.00	2.00	3.75	4.00	.....	.....	4.75	4.00	2.00	2.00	5.75	4.00	2.00	2.00
	3.75	5.00	2.75	2.25	3.00	5.00	2.75	2.25	.....	.....	.....	.....	5.25	5.00	.....	.....	6.00	5.00	2.75	2.25
	4.00	5.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6.50	6.00	3.50	2.50
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6.50	6.25	.....	.....
	2.25	1.00	0.00	1.00	2.25	1.00	0.25	0.75	1.75	1.00	0.00	1.00	3.75	1.00	0.00	1.00	2.75	1.00	0.00	1.00
	2.75	2.00	0.75	1.25	2.75	2.00	1.00	1.00	2.25	2.00	0.75	1.25	4.00	2.00	0.75	1.25	3.00	2.00	1.00	1.00
	3.25	3.00	1.25	1.75	3.25	3.00	1.25	1.75	2.25	3.00	1.25	1.75	4.25	3.00	1.00	2.00	3.25	3.00	1.25	1.75
	3.25	4.00	2.00	2.00	3.50	4.00	2.00	2.00	2.75	3.25	.....	.....	4.75	4.00	2.00	2.00	3.25	4.00	2.00	2.00
	3.50	5.00	2.75	2.25	4.00	4.50	.....	.....	.....	.....	.....	.....	4.50	5.00	2.75	2.25	3.50	5.00	2.75	2.25
	3.75	5.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.25	6.00	3.25	2.75	3.75	6.00	3.50	2.50
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.75	7.00	.....	.....	4.25	7.00	.....	.....

MERINO.

Catalogue No. of samples..	102.				102.				102.				103.				102.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	3.00	1.00	0.00	1.00	1.75	1.00	0.25	0.75	4.00	1.00	0.00	1.00	3.50	1.00	0.25	0.75	2.00	1.00	0.24	0.75
	3.75	2.00	1.00	1.00	2.50	2.00	1.00	1.00	4.50	2.00	0.75	1.25	4.25	2.00	1.00	1.00	2.50	2.00	0.75	1.25
	4.00	3.00	1.25	1.75	3.00	3.00	1.50	1.50	4.75	3.00	1.25	1.75	4.25	3.00	1.50	1.50	2.75	3.00	1.25	1.75
	4.25	4.00	2.00	2.00	3.00	4.00	2.00	2.00	5.25	4.00	2.00	2.00	4.75	4.00	2.00	2.00	3.00	4.00	2.00	2.00
	4.25	5.00	2.75	2.25	3.25	.....	.....	.....	5.50	5.00	3.00	2.00	5.25	5.00	3.00	2.00	.....	.....	.....	.....
	4.75	6.00	3.50	2.50	.....	.....	.....	.....	6.00	6.00	3.75	2.25	.....	.....	.....	.....	.....	.....	.....	.....
	5.25	6.75	.....	.....	.....	.....	.....	.....	6.50	6.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	2.00	1.00	0.25	0.75	3.50	1.00	0.25	0.75	3.75	1.00	0.25	0.75	3.50	1.00	0.25	0.75	3.50	1.00	0.25	0.75
	3.00	2.00	1.00	1.00	4.50	2.00	1.00	1.00	4.50	2.00	0.75	1.25	4.25	2.00	1.00	1.00	4.25	2.00	1.00	1.00
	3.50	3.00	1.25	1.75	4.75	3.00	1.50	1.50	4.75	3.00	1.25	1.75	4.50	3.00	1.50	1.50	4.75	3.00	1.50	1.50
	3.75	4.00	2.00	2.00	5.00	3.25	.....	.....	5.25	4.00	2.00	2.00	4.75	4.00	2.00	2.00	5.50	4.00	2.25	1.75
	.....	.....	.....	.....	.....	.....	.....	.....	5.75	5.00	2.75	2.25	5.25	5.00	3.00	2.00	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	6.50	5.50	.....	.....	6.00	5.75	.....	.....	.....	.....	.....	.....
	2.50	1.00	0.00	1.00	3.75	1.00	0.25	0.75	3.25	1.00	0.00	1.00	2.25	1.00	0.25	0.75	2.75	1.00	0.00	1.00
	3.50	2.00	0.25	1.75	4.25	2.00	0.75	1.25	3.50	2.00	0.75	1.25	3.25	2.00	1.00	1.00	3.00	2.00	0.75	1.25
	3.75	3.00	1.00	2.00	4.50	3.00	1.50	1.50	3.75	3.00	1.25	1.75	3.50	3.00	1.75	1.25	3.25	3.00	1.25	1.75
	4.25	4.00	2.00	2.00	5.00	4.00	2.00	2.00	4.00	4.00	2.00	2.00	3.75	4.00	2.25	1.75	3.50	4.00	2.00	2.00
	4.50	5.00	2.25	2.75	5.25	4.25	.....	.....	4.25	5.00	2.75	2.25	4.00	5.00	3.00	2.00	4.00	4.75	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	4.75	6.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

MERINO.

Catalogue No. of samples..	104.				104.				104.				104.				104.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	3.25	1.00	0.25	0.75	2.75	1.00	0.00	1.00	2.25	1.00	0.25	0.75	4.25	1.00	0.25	0.75	2.00	1.00	0.00	1.00
	3.50	2.00	0.75	1.25	4.25	2.00	0.25	1.75	2.75	2.00	1.00	1.00	4.75	2.00	1.00	1.00	3.50	2.00	1.00	1.00
	3.75	3.00	.....	.....	4.75	3.00	1.00	2.00	3.25	2.50	.....	.....	5.25	3.00	1.25	1.75	3.75	3.00	1.25	1.75
	.....	.....	.....	.....	5.25	4.00	1.75	2.25	.....	.....	.....	.....	.....	.....	.....	.....	4.00	4.00	2.00	2.00
	.....	.....	.....	.....	5.50	4.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.50	5.00	2.75	2.25
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4.75	6.00	3.25	2.75
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.25	6.50	.....	.....
	2.50	1.00	0.00	1.00	3.00	1.00	0.25	0.75	3.75	1.00	0.25	0.75	4.50	1.00	0.25	0.75	2.75	1.00	0.25	0.75
	3.00	2.00	0.75	1.25	3.50	2.00	0.75	1.25	4.75	2.00	1.00	1.00	5.25	2.00	1.00	1.00	3.50	2.00	1.00	1.00
	3.25	3.00	1.00	2.00	4.25	2.75	.....	.....	5.75	2.75	.....	.....	5.75	3.00	1.25	1.75	4.00	3.00	1.25	1.75
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6.50	4.00	2.00	2.00	4.50	4.00	2.00	2.00
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7.00	4.75	.....	.....	.....	.....	.....	.....
	2.75	1.00	0.00	1.00	2.75	1.00	0.25	0.75	3.00	1.00	0.00	1.00	3.25	1.00	0.00	1.00	3.75	1.00	0.25	0.75
	3.75	2.00	0.25	1.75	3.50	2.00	0.75	1.25	4.25	2.00	0.75	1.25	3.50	2.00	1.00	1.00	4.00	2.00	0.75	0.25
	4.25	3.00	1.00	2.00	3.75	3.00	1.25	1.75	4.50	3.00	1.00	2.00	3.75	3.00	1.25	1.75	4.25	3.00	1.25	1.75
	4.50	4.00	1.75	2.25	3.75	3.25	.....	.....	5.00	4.00	2.00	2.00	4.00	3.25	.....	.....	4.75	4.00	2.00	2.00
	4.50	4.25	.....	.....	.....	.....	.....	.....	5.50	5.00	2.75	2.25	.....	.....	.....	.....	5.25	5.00	2.75	2.25

BOSTON GRADES.

Catalogue No. of samples..	276.				276.				276.				276.				276.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
Actual measurements in grams and millimeters.	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	3.75	1.00	0.25	0.75	3.50	1.00	0.125	0.875	4.75	1.00	0.125	0.875	4.75	1.00	0.25	0.75	1.25	1.00	0.00	1.00
	4.50	2.00	1.00	1.00	3.75	2.00	0.875	1.125	5.25	2.00	0.75	1.25	6.75	2.00	0.75	1.25	1.75	2.00	0.50	1.50
	5.25	3.00	1.375	1.625	3.75	3.00	1.125	1.875	5.75	3.00	1.25	1.75	7.25	3.00	1.125	1.875	2.00	3.00	1.00	2.00
	5.50	4.00	2.00	2.00	4.50	4.00	1.75	2.25	6.25	4.00	1.875	2.125	7.50	4.00	1.875	2.125	2.25	4.00	1.125	2.875
	5.75	5.00	2.75	2.25	4.75	5.00	2.25	2.75	6.50	5.00	2.625	2.375	8.00	5.00	2.50	2.50	2.50	5.00	1.75	3.25
	6.25	5.00	.....	.....	5.50	6.00	3.00	3.00	7.00	6.00	3.25	2.75	8.50	6.00	3.125	2.875	2.75	6.00	2.25	3.75
	.....	.....	.....	.....	6.50	6.75	.....	.....	8.00	6.875	.....	.....	9.25	6.50	.....	.....	3.25	7.00	3.00	4.00
	2.50	1.00	0.125	0.875	3.50	1.00	0.125	0.875	3.50	1.00	0.00	1.00	3.25	1.00	0.25	0.75	1.25	1.00	0.125	0.875
	2.75	2.00	0.75	1.25	3.75	2.00	0.875	1.125	5.25	2.00	0.50	1.50	4.25	2.50	1.00	1.50	1.50	2.00	0.50	1.50
	3.25	3.00	1.25	1.75	4.25	3.00	1.25	2.75	5.50	3.00	1.00	2.00	4.75	3.00	1.25	1.75	1.75	3.00	1.00	2.00
	3.50	3.75	.....	.....	4.25	4.00	2.00	2.00	6.50	4.00	.....	.....	5.00	4.00	2.00	2.00	1.75	4.00	1.25	2.75
	.....	.....	.....	.....	4.50	5.00	2.75	2.25	.....	.....	.....	.....	5.50	5.00	2.75	2.25	2.00	5.00	2.00	3.00
	.....	.....	.....	.....	4.75	6.00	3.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....	2.25	6.00	2.50	3.50
	.....	.....	.....	.....	5.25	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	2.25	7.00	3.00	4.00
	.....	.....	.....	.....	5.50	7.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2.25	7.125	.....	.....
	2.00	1.00	0.125	0.875	2.75	1.00	0.125	0.875	3.25	1.00	0.25	0.75	2.25	1.00	0.25	0.75	3.00	1.00	0.25	0.75
	2.75	2.00	0.75	1.25	3.25	2.00	0.75	1.25	3.75	2.00	0.875	1.125	3.00	2.00	0.50	1.50	3.00	4.00	0.75	1.25
	3.25	3.00	1.375	1.625	3.50	3.00	1.25	1.75	4.00	3.00	1.25	1.75	3.50	3.00	1.00	2.00	3.25	3.00	1.00	2.00
	3.50	4.00	1.875	2.125	4.00	4.00	2.00	2.00	4.50	4.00	2.00	2.00	4.00	4.00	1.25	2.75	3.50	4.00	1.25	2.75
	4.25	4.00	.....	.....	4.75	4.75	.....	.....	4.75	4.25	.....	.....	4.50	5.00	1.75	3.25	3.50	5.00	1.75	3.25
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.50	6.00	2.25	3.75	3.75	6.00	2.25	3.75
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.75	6.875	.....	.....	4.25	7.00	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

BOSTON GRADES.

Catalogue No. of samples..	289.				289.				289.				289.				289.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	mm.	mm.	mm.	gms.	mm.	mm.	mm.	gms.	mm.	mm.	mm.	gms.	mm.	mm.	mm.	gms.	mm.	mm.	mm.
	2.50	1.00	0.125	0.875	1.75	1.00	0.125	0.875	4.50	1.00	0.125	0.875	6.50	1.00	0.125	0.875	3.25	1.00	0.125	0.875
	2.75	2.00	0.875	0.125	1.75	2.00	0.75	1.25	4.75	2.00	0.75	1.25	7.25	2.00	0.75	1.25	3.50	2.00	0.875	1.125
	2.75	3.00	1.25	1.75	2.00	3.00	1.25	1.75	4.75	3.00	1.125	1.875	7.50	3.00	1.25	1.75	3.75	3.00	.....	.....
	3.25	4.00	2.00	2.00	2.00	4.00	2.00	2.00	5.00	4.00	1.75	2.125	8.00	4.00	2.00	2.00	.....	.....	.....	.....
	3.50	5.00	2.75	2.25	2.25	5.00	2.75	2.25	5.25	5.00	2.50	2.50	8.50	5.00	2.75	2.25	.....	.....	.....	.....
	3.50	6.00	3.25	2.75	2.50	6.00	3.25	2.75	5.75	6.00	3.125	2.875	9.00	6.00	3.25	2.75	.....	.....	.....	.....
	3.75	7.00	4.00	3.00	2.75	7.00	4.00	3.00	6.25	7.00	4.00	3.00	10.25	7.00	4.00	3.00	.....	.....	.....	.....
	4.25	8.00	4.75	3.25	.....	.....	.....	.....	7.00	8.00	4.75	3.25	11.50	7.75	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	7.50	9.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	4.75	1.00	0.125	0.875	4.00	1.00	0.125	0.875	2.50	1.00	0.125	0.875	2.75	1.00	0.125	0.875	7.50	1.00	0.125	0.875
	5.25	2.00	0.75	1.25	4.25	2.00	0.75	1.25	2.75	2.00	0.75	1.25	3.25	2.00	0.75	1.25	8.25	2.00	0.75	1.25
	5.50	3.00	1.25	1.75	4.50	3.00	1.125	1.875	3.00	3.00	1.125	1.875	3.50	3.00	1.25	1.75	8.75	3.00	1.125	1.875
	5.75	4.00	2.00	2.00	4.75	4.00	1.875	2.125	3.25	4.00	1.875	2.125	3.75	4.00	2.00	2.00	9.25	4.00	1.875	2.125
	6.00	5.00	2.50	2.50	5.00	5.00	2.375	2.625	3.25	5.00	2.50	2.50	4.25	5.00	2.50	2.50	10.25	5.00	2.375	2.625
	6.50	6.00	3.125	2.875	5.25	6.00	3.125	2.875	3.75	6.00	3.125	2.875	4.25	5.25	.....	.....	11.00	6.00	3.00	3.00
	7.25	7.00	4.00	3.00	4.38	6.25	.....	.....	4.00	7.00	4.00	3.00	.....	.....	.....	.....	11.75	7.00	3.75	3.25
	8.25	8.00	4.75	3.25	.....	.....	.....	.....	4.25	7.75	.....	.....	.....	.....	.....	.....	13.25	7.50	.....	.....
	8.38	8.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	3.75	1.00	0.25	0.75	3.00	1.00	0.25	0.75	4.75	1.00	0.125	0.875	1.25	1.00	0.25	0.75	2.00	1.00	0.125	0.875
	4.50	2.00	0.875	1.125	3.50	2.00	1.00	1.00	5.25	2.00	0.75	1.25	1.50	2.00	1.00	1.00	2.25	2.00	0.75	1.25
	5.50	3.00	1.25	1.75	3.75	3.00	1.50	1.50	5.50	3.00	1.25	1.75	1.75	3.00	1.625	1.375	2.50	3.00	1.125	1.875
	5.75	4.00	2.00	2.00	4.25	4.00	2.125	1.875	5.75	3.25	.....	.....	.....	.....	.....	.....	3.25	3.75	.....	.....
	6.25	5.00	2.75	2.25	4.50	5.00	2.875	2.125	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	4.75	6.00	3.50	2.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

PHILADELPHIA GRADES.

Catalogue No. of samples..	290.				290.				290.				290.				290.			
Actual measurements in grams and millimeters.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	mm.	mm.	mm.	gms.	mm.	mm.	mm.	gms.	mm.	mm.	mm.	gms.	mm.	mm.	mm.	gms.	mm.	mm.	mm.
	2.50	1.00	0.25	0.75	3.25	1.00	0.125	0.875	3.50	1.00	0.25	0.75	3.00	1.00	0.25	0.75	3.50	1.00	0.25	0.75
	2.75	2.00	1.00	1.00	3.75	2.00	0.75	1.25	4.00	2.00	0.75	1.25	3.50	2.00	0.75	1.25	4.00	2.00	0.75	1.25
	3.25	3.00	1.25	1.75	4.00	3.00	1.00	2.00	4.25	3.00	1.00	2.00	3.75	3.00	1.125	1.875	4.50	3.00	1.00	2.00
	3.50	4.00	1.75	2.25	4.25	4.00	1.50	2.50	4.25	4.00	1.75	2.25	4.00	4.00	1.50	2.50	4.75	4.00	1.75	2.25
	3.75	5.00	2.25	2.75	4.25	5.00	2.00	3.00	4.50	5.00	2.00	3.00	4.25	5.00	2.25	2.75	5.00	5.00	2.25	2.75
	4.75	5.75	.....	.....	4.75	5.875	.....	.....	5.00	6.00	2.75	3.25	4.50	6.00	2.875	3.125	5.25	6.00	2.875	3.125
	.....	.....	.....	.....	.....	.....	.....	.....	5.75	7.00	3.25	3.75	5.25	7.00	3.25	3.75	5.75	7.00	3.25	3.75
	.....	.....	.....	.....	.....	.....	.....	.....	6.50	8.00	4.00	4.00	4.50	8.00	4.00	4.00	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	7.25	9.00	4.75	4.25	6.25	8.75	.....	.....	.....	.....	.....	.....
	4.75	1.00	0.50	0.50	2.25	1.00	0.125	0.875	2.25	1.00	0.25	0.75	3.00	1.00	0.25	0.75	2.50	1.00	0.25	0.75
	5.50	2.00	0.875	1.125	2.50	2.00	0.75	1.25	2.75	2.00	0.75	1.25	3.50	2.00	0.75	1.25	3.25	2.00	0.75	1.25
	5.75	3.00	1.125	1.875	2.75	3.00	1.00	2.00	2.75	3.00	1.00	2.00	3.75	3.00	1.00	2.00	3.75	3.00	1.00	2.00
	6.25	4.00	1.75	2.25	3.00	4.00	1.50	2.50	3.00	4.00	1.50	2.50	4.00	4.00	1.50	2.50	4.00	4.00	1.75	2.25
	7.50	5.00	2.00	3.00	3.25	5.00	2.00	3.00	3.50	5.00	2.25	2.75	4.25	5.00	2.00	3.00	4.25	5.00	2.25	2.75
	7.00	6.00	2.75	3.25	3.75	5.75	.....	.....	3.75	6.00	2.75	3.25	4.38	6.00	2.875	3.125	4.50	6.00	2.875	3.125
	7.75	7.00	3.25	3.75	.....	.....	.....	.....	4.00	6.25	.....	.....	5.25	7.00	3.25	3.75	5.25	7.00	3.25	3.75
	8.75	8.00	4.00	4.00	.....	.....	.....	.....	.....	.....	.....	.....	5.50	7.25	.....	.....	5.75	7.50	.....	.....
	2.75	1.00	0.25	0.75	3.50	1.00	0.125	0.875	2.75	1.00	0.125	0.875	1.50	1.00	0.125	0.875	2.25	1.00	0.125	0.875
	3.50	2.00	0.75	1.25	4.00	2.00	0.75	1.25	3.25	2.00	0.75	1.25	2.00	2.00	0.875	1.125	2.50	2.00	0.75	1.25
	3.75	3.00	1.00	2.00	4.25	3.00	1.00	2.00	3.50	3.00	1.00	2.00	2.25	3.00	1.25	1.75	2.75	3.00	1.125	1.875
	4.25	4.00	1.50	2.50	4.50	4.00	1.375	2.625	3.75	3.50	.....	.....	2.50	4.00	1.75	2.25	3.00	4.00	1.75	2.25
	4.50	5.00	2.00	3.00	4.75	5.00	2.00	3.00	.....	.....	.....	.....	2.50	5.00	2.25	2.75	3.25	5.00	2.25	2.75
	5.25	6.00	2.25	3.75	5.25	6.00	2.25	3.75	.....	.....	.....	.....	2.75	6.00	.....	.....	3.50	6.00	2.875	3.125
	6.50	7.00	3.00	4.00	6.00	7.00	3.00	4.00	.....	.....	.....	.....	.....	.....	.....	.....	4.00	7.00	3.50	3.50
	7.25	8.00	.....	.....	6.75	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

PHILADELPHIA GRADES.

Catalogue No. of samples..

Actual measurements in grams and millimeters.

300.				300.				300.				300.				300.			
Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
2.75	1.00	0.00	1.00	3.00	1.00	0.25	0.75	2.75	1.00	0.125	0.875	2.00	1.00	0.25	0.75	4.75	1.00	0.50	0.50
3.00	2.00	0.75	1.25	3.50	2.00	0.75	1.25	3.25	2.00	0.75	1.25	2.50	2.00	0.75	1.25	6.50	2.00	1.00	1.00
3.25	3.00	1.125	1.875	3.75	2.75	.....	.....	3.25	3.00	1.125	1.875	2.75	3.00	1.25	1.75	6.75	3.00	1.25	1.75
3.50	4.00	1.875	2.125	.....	.....	.....	.....	3.75	4.00	1.875	2.125	3.00	4.00	1.875	2.125	7.50	4.00	2.00	2.00
3.75	5.00	2.50	2.50	.....	.....	.....	.....	4.00	5.00	2.625	2.375	3.25	5.00	2.50	2.50	7.75	5.00	2.50	2.50
4.00	6.00	3.125	2.875	.....	.....	.....	.....	4.50	5.75	.....	.....	3.25	5.25	.....	.....	7.75	5.00	3.125	2.875
4.25	6.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9.25	7.00	3.875	3.125
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9.75	7.375	.....	.....
1.00	1.00	0.25	0.75	2.50	1.00	0.125	0.875	1.75	1.00	0.125	0.875	4.75	1.00	0.25	0.75	1.75	1.00	0.125	0.875
1.50	2.00	0.75	1.25	3.75	2.00	0.625	1.375	2.50	2.00	0.50	1.50	6.50	2.00	0.875	1.125	2.25	2.00	0.75	1.25
1.75	3.00	1.125	1.875	4.50	3.00	1.00	2.00	2.75	3.00	1.00	2.00	7.00	3.00	1.25	1.75	2.75	2.50	.....	.....
1.72	4.00	1.875	2.125	4.75	4.00	1.75	2.25	.....	.....	.....	.....	7.50	4.00	2.00	2.00	.....	.....	.....	.....
2.00	5.00	2.50	2.50	5.00	4.25	.....	.....	.....	.....	.....	.....	8.00	5.00	2.75	2.25	.....	.....	.....	.....
2.25	6.00	3.125	2.875	.....	.....	.....	.....	.....	.....	.....	.....	8.75	6.00	3.25	2.75	.....	.....	.....	.....
2.75	6.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9.50	7.00	4.00	3.00	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10.25	8.00	4.75	3.25	.....	.....	.....	.....
1.50	1.00	0.125	0.875	1.25	1.00	0.125	0.875	3.50	1.00	0.125	0.875	2.75	1.00	0.25	0.75	2.75	1.00	0.125	0.875
2.00	2.00	0.75	1.25	1.50	2.00	0.75	1.25	4.25	2.00	0.75	1.25	3.25	2.00	0.875	1.125	3.25	2.00	0.75	1.25
2.50	3.00	1.125	1.875	1.75	3.00	1.25	1.75	4.25	3.00	1.125	1.875	3.50	3.00	1.25	1.75	3.50	3.00	1.125	1.875
2.75	4.00	.....	.....	1.75	4.00	2.00	2.00	4.50	4.00	1.875	2.125	3.75	4.00	2.00	2.00	3.75	4.00	1.875	2.125
.....	.....	.....	.....	1.75	5.00	2.75	2.25	4.50	5.00	2.50	2.50	4.25	5.00	2.75	2.25	4.00	5.00	2.50	2.50
.....	.....	.....	.....	2.00	6.00	3.25	2.75	5.00	6.00	3.125	2.875	4.25	6.00	3.25	2.75	4.50	6.00	3.125	2.875
.....	.....	.....	.....	2.25	7.00	.....	.....	5.75	6.875	.....	.....	4.75	7.00	4.00	3.00	5.00	6.50	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.50	7.75	.....	.....	.....	.....	.....	.....

PHILADELPHIA GRADES.

Catalogue No. of samples..

Actual measurements in grams and millimeters.

302.				302.				302.				302.				302.			
Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
2.00	1.00	0.25	0.75	2.25	1.00	0.25	0.75	0.50	1.00	0.00	1.00	3.50	1.00	0.125	0.875	3.25	1.00	0.25	0.75
2.50	2.00	0.75	1.25	2.75	2.00	0.875	1.125	1.25	2.00	0.25	1.75	4.50	2.00	0.75	1.25	4.00	2.00	0.875	1.125
2.75	3.00	1.25	1.75	3.25	3.00	1.25	1.75	1.75	3.00	0.875	2.125	4.75	3.00	.....	.....	4.50	3.00	1.25	1.75
3.25	4.00	2.00	2.00	3.50	4.00	2.00	2.00	2.00	4.00	1.25	2.75	.....	.....	.....	.....	5.25	4.00	.....	.....
3.25	4.50	.....	.....	3.75	5.00	2.625	2.375	2.50	4.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	4.00	6.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
0.50	1.00	0.00	1.00	3.00	1.00	0.00	1.00	3.25	1.00	0.25	0.75	3.75	1.00	0.25	0.75	4.75	1.00	0.25	0.75
1.00	2.00	0.50	1.50	3.25	2.00	0.50	1.50	3.75	2.00	0.875	1.125	4.50	2.00	0.875	1.125	5.75	2.00	0.75	1.25
1.25	3.00	1.00	2.00	3.25	3.00	1.00	2.00	4.25	3.00	1.125	1.875	5.50	2.75	.....	.....	6.50	3.00	1.25	1.75
1.50	4.00	1.50	2.50	3.50	4.00	1.50	2.50	4.75	4.00	1.875	2.125	.....	.....	.....	.....	7.00	3.75	.....	.....
1.50	5.00	2.125	2.875	3.50	5.00	2.50	2.50	5.25	5.00	2.25	2.75	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	3.75	6.00	3.00	3.00	5.50	6.00	3.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	4.25	7.00	3.50	3.50	6.00	6.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	4.75	8.00	4.25	3.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3.00	1.00	0.125	0.875	2.25	1.00	0.25	0.75	1.75	1.00	0.25	0.75	2.75	1.00	0.25	0.75	2.75	1.00	0.50	0.50
3.25	2.00	0.75	1.25	2.75	2.00	0.75	1.25	2.25	2.00	0.75	1.25	3.50	2.00	0.875	1.125	5.00	2.00	1.00	1.00
3.75	3.00	1.00	2.00	3.00	3.00	1.00	2.00	2.75	3.00	1.125	1.875	3.75	3.00	1.125	1.875	5.75	3.00	1.625	1.375
3.75	4.00	1.75	2.25	3.25	4.00	1.75	2.25	.....	.....	.....	.....	4.25	4.00	1.875	2.125	6.25	4.00	2.125	1.875
4.25	5.00	2.125	2.875	3.25	5.00	2.50	2.50	.....	.....	.....	.....	4.50	5.00	2.375	2.625	.....	.....	.....	.....
4.75	5.75	.....	.....	3.75	6.00	3.00	3.00	.....	.....	.....	.....	4.75	6.00	3.00	3.00	.....	.....	.....	.....
.....	.....	.....	.....	4.25	7.00	3.75	3.25	.....	.....	.....	.....	5.25	6.75	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	4.50	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

PHILADELPHIA GRADES.

Actual measurements in grams and millimeters.

Catalogue No. of samples..	309.				309.				[illegible]				309.				309.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	6.50	1.00	0.25	0.75	4.75	1.00	0.25	0.75	3.75	1.00	0.50	0.50	6.25	1.00	0.25	0.75	5.25	1.00	0.25	0.75
	7.00	2.00	0.75	1.25	5.75	2.00	0.625	1.375	5.50	2.00	0.875	1.125	7.25	1.00	0.75	1.25	6.25	2.00	0.75	1.25
	7.25	3.00	1.125	1.875	7.25	3.00	1.00	2.00	5.75	3.00	1.125	0.875	7.25	3.00	1.00	2.00	6.50	3.00	1.125	1.875
	7.50	4.00	1.75	2.25	7.50	4.00	1.50	2.50	5.75	4.00	1.755	2.25	7.75	4.00	1.75	2.25	7.00	4.00	1.75	2.25
	8.25	5.00	2.125	2.875	8.25	5.00	1.875	3.125	6.25	5.00	2.12	2.875	8.25	5.00	2.125	2.875	7.25	5.00	2.125	2.875
	8.75	6.00	2.75	3.25	9.25	5.75	.....	.....	6.75	6.00	2.75	3.25	8.75	6.00	2.75	3.25	7.75	6.00	2.75	3.25
	.....	.....	.....	.....	.....	.....	.....	.....	7.50	7.00	3.25	3.75	9.75	7.00	3.25	3.75	7.75	6.25	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	8.25	7.25	.....	.....	10.75	7.25	.....	.....	.....	.....	.....	.....
	6.50	1.00	0.25	0.75	3.25	1.00	0.25	0.75	5.00	1.00	0.25	0.75	4.50	1.00	0.50	0.50	6.25	1.00	0.25	0.75
	7.25	2.00	0.75	1.25	3.75	2.00	0.875	1.125	6.00	2.00	0.75	1.25	5.50	2.00	0.875	1.125	7.00	2.00	0.50	1.50
	7.50	3.00	1.125	1.875	5.00	3.00	1.125	1.875	6.25	3.00	1.00	2.00	5.75	3.00	1.125	1.875	7.00	3.00	1.00	2.00
	8.25	4.00	1.75	2.25	5.25	3.875	.....	.....	6.50	4.00	1.50	2.50	5.75	4.00	1.75	2.25	7.25	4.00	1.25	2.75
	8.50	5.00	2.125	2.875	.....	.....	.....	.....	6.75	5.00	2.00	3.00	6.75	4.50	.....	.....	7.50	5.00	2.00	3.00
	9.00	6.00	2.75	3.25	.....	.....	.....	.....	7.50	6.00	2.75	3.25	.....	.....	.....	.....	8.25	6.00	2.25	3.75
	10.00	7.00	3.25	3.75	.....	.....	.....	.....	8.50	7.00	3.75	3.25	.....	.....	.....	.....	9.50	7.00	3.00	4.00
	11.25	8.00	4.00	4.00	.....	.....	.....	.....	9.50	8.00	4.00	4.00	.....	.....	.....	.....	10.75	8.00	3.75	4.25
	11.75	8.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12.25	9.00	4.50	4.50
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	13.00	9.50	.....	.....
	6.50	1.00	0.25	0.75	4.75	1.00	0.00	1.00	4.00	1.00	0.00	1.00	5.75	1.00	0.25	0.75	4.50	1.00	0.50	0.50
	8.00	2.00	0.75	1.25	5.75	2.00	0.50	1.50	5.75	2.00	0.00	2.00	6.75	2.00	0.75	1.25	6.75	2.00	1.00	1.00
	8.50	3.00	1.125	1.875	6.50	3.00	1.00	2.00	7.00	3.00	0.50	2.50	7.00	3.00	1.125	1.876	7.25	3.00	1.25	1.75
	8.75	4.00	1.75	2.25	6.75	3.25	.....	.....	8.25	4.00	1.00	3.00	7.25	4.00	1.75	2.25	7.75	4.00	2.00	2.00
	9.25	5.00	2.125	2.875	.....	.....	.....	.....	9.25	4.00	.....	.....	7.50	5.00	2.125	2.875	8.25	5.00	2.50	2.50
	9.75	6.00	2.75	3.25	.....	.....	.....	.....	.....	.....	.....	.....	7.75	6.00	2.875	3.125	8.75	6.00	3.00	3.00
	11.00	7.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8.75	7.00	3.25	3.75	9.50	7.00	3.75	3.25
	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9.50	7.25	.....	.....	10.00	7.25	.....	.....

PHILADELPHIA GRADES.

Actual measurements in grams and millimeters.

Catalogue No. of samples..	310.				310.				[illegible]				310.				310.			
	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
	gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
	4.75	1.00	0.125	0.875	5.00	1.00	0.125	0.875	5.25	1.00	0.25	0.75	4.50	1.00	0.25	0.75	4.50	1.00	0.125	0.875
	6.00	2.00	0.75	1.25	5.75	2.00	0.875	1.125	5.75	2.00	0.875	1.125	5.50	2.00	0.875	1.125	4.50	2.00	0.875	1.125
	6.25	3.00	1.125	1.875	6.25	3.00	1.25	1.75	6.25	3.00	1.25	1.75	6.00	3.00	1.25	1.75	5.17	3.00	1.25	1.75
	6.75	4.00	1.75	2.25	6.75	4.00	2.00	2.00	6.75	4.00	2.00	2.00	6.50	4.00	2.00	2.00	6.25	4.00	1.875	2.125
	7.25	5.00	2.25	2.75	7.50	5.00	2.50	2.50	7.25	5.00	2.75	2.25	6.75	5.00	2.50	2.50	6.50	5.00	2.50	2.50
	7.75	6.00	3.00	3.00	7.75	6.00	3.125	2.875	8.25	5.25	3.125	2.875	7.75	6.00	3.25	2.75	7.00	6.00	3.125	2.875
	.....	.....	.....	.....	8.50	6.75	.....	.....	8.75	7.00	4.00	3.00	.....	.....	.....	.....	7.50	6.75	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	9.50	5.00	4.75	3.25	.....	.....	.....	.....	.....	.....	.....	.....
	4.25	1.00	0.125	0.875	5.50	1.00	0.25	0.75	6.25	1.00	0.25	0.75	5.25	1.00	0.125	0.875	7.50	1.00	0.25	0.75
	5.00	2.00	0.75	1.25	6.75	2.00	0.875	1.125	7.00	2.00	0.875	1.125	6.25	2.00	0.75	1.25	8.50	2.00	0.75	1.25
	5.25	3.00	1.125	1.875	7.00	3.00	1.25	1.75	7.50	3.00	1.25	1.75	6.75	3.00	1.125	1.875	8.75	3.00	1.125	1.875
	5.50	4.00	1.75	2.25	7.50	4.00	1.875	2.125	7.75	4.00	1.875	2.125	7.50	4.00	1.875	2.125	8.75	4.00	1.75	2.25
	5.75	5.00	2.25	2.75	8.00	5.00	2.50	2.50	8.25	5.00	2.50	2.50	8.25	5.00	2.50	2.50	9.75	5.00	2.25	2.75
	6.25	6.00	3.00	3.00	8.75	6.00	.....	.....	9.25	6.00	3.125	2.875	8.75	6.00	3.125	2.875	10.00	5.75	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	10.75	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....
	.....	.....	.....	.....	.....	.....	.....	.....	11.75	7.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	6.50	1.00	0.25	0.75	6.50	1.00	0.125	0.875	3.75	1.00	0.25	0.75	5.25	1.00	0.125	0.875	3.75	1.00	0.25	0.75
	7.50	2.00	0.875	1.125	7.50	2.00	0.75	1.25	4.75	2.00	0.875	1.125	6.75	2.00	0.75	1.25	5.25	2.00	0.875	1.125
	8.00	3.00	1.25	1.75	7.75	3.00	1.125	1.875	5.50	3.00	1.25	1.75	7.25	3.00	1.125	1.875	5.50	3.00	1.25	1.75
	8.75	4.00	2.00	2.00	8.75	4.00	1.75	2.25	5.75	4.00	2.00	2.00	7.50	4.00	1.875	2.125	5.75	4.00	1.875	2.125
	9.25	4.50	.....	.....	9.25	5.00	2.25	2.75	6.25	5.00	2.50	2.50	8.50	4.75	.....	.....	6.25	5.00	2.25	2.75
	.....	.....	.....	.....	9.75	6.00	3.00	3.00	6.75	5.75	.....	.....	.....	.....	.....	.....	6.50	6.00	3.00	3.00
	.....	.....	.....	.....	11.75	7.00	4.00	3.00	.....	.....	.....	.....	.....	.....	.....	.....	7.25	6.75	.....	.....
	.....	.....	.....	.....	12.50	7.75	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE XIV.—*Actual measurements, showing relation between strain, stretch, and elasticity*—Continued.

PHILADELPHIA GRADES.

Catalogue No. of samples..

Actual measurements in grams and millimeters.

317.				317.				317.				317.				317.			
Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
1.75	1.00	0.25	0.75	2.25	1.00	0.50	0.50	4.25	1.00	0.25	0.75	2.75	1.00	0.25	0.75	2.00	1.00	0.25	0.75
2.25	2.00	0.75	1.25	4.25	2.00	1.00	1.00	4.75	2.00	1.00	1.00	3.75	2.00	0.75	1.25	2.50	2.00	0.75	1.25
2.50	3.00	1.25	1.75	4.75	3.00	1.25	1.75	5.75	3.00	1.50	1.50	4.25	3.00	1.25	1.75	2.75	3.00	1.25	1.75
2.75	4.00	2.00	2.00	.....	.....	.....	.....	6.50	4.00	2.00	2.00	4.50	4.00	1.875	2.125	.....	.....	.....	.....
2.75	5.00	2.75	2.25	.....	.....	.....	.....	7.00	4.00	.....	.....	4.75	5.00	2.25	2.75	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5.25	6.00	.....	.....	.....	.....	.....	.....
5.75	1.00	0.50	0.50	4.00	1.00	0.25	0.75	2.50	1.00	0.25	0.75	6.25	1.00	0.50	0.50	3.75	1.00	0.25	0.75
8.00	2.00	1.00	1.00	4.75	2.00	0.875	1.125	3.25	2.00	0.875	1.125	8.25	2.00	1.00	1.00	4.50	2.00	1.00	1.00
8.75	3.00	1.50	1.50	5.00	2.50	.....	.....	3.50	3.00	1.25	1.75	9.25	2.25	.....	.....	5.25	3.00	1.50	1.50
9.75	4.00	2.125	1.875	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10.75	5.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4.75	1.00	0.50	0.50	3.50	1.00	0.25	0.75	2.25	1.00	0.00	1.00	3.00	1.00	0.25	0.75	3.25	1.00	0.50	0.50
7.25	2.00	1.00	1.00	5.50	2.00	0.75	1.25	3.25	2.00	0.75	1.25	4.25	2.00	0.75	1.25	4.50	2.00	1.00	1.00
8.50	3.00	1.50	1.50	6.25	3.00	1.125	1.875	3.50	3.00	1.00	2.00	4.50	2.50	.....	.....	5.00	3.00	1.25	1.75
9.25	4.00	2.125	1.875	6.75	4.00	1.875	2.125	.....	.....	.....	.....	.....	.....	.....	.....	5.50	4.00	2.00	2.00
10.00	4.50	.....	.....	7.25	4.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6.25	5.00	2.50	2.50

PHILADELPHIA GRADES.

Catalogue No. of samples..

Actual measurements in grams and millimeters.

318.				318.				318.				318.				318.			
Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.	Strain.	Total stretch.	Permanent stretch.	Difference.
gms.	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*	*gms.*	*mm.*	*mm.*	*mm.*
0.75	1.00	0.125	0.875	10.75	1.00	0.125	0.875	5.75	1.00	0.00	1.00	10.50	1.00	0.125	0.875	2.00	1.00	0.00	1.00
10.25	2.00	0.75	1.25	11.50	2.00	0.75	1.25	6.00	2.00	0.50	1.50	11.25	2.00	0.625	1.375	3.00	2.00	0.25	1.75
10.75	3.00	1.125	1.875	11.50	3.00	1.125	1.875	6.50	3.00	1.00	2.00	11.50	3.00	1.00	2.00	3.75	3.00	0.75	2.25
11.50	4.00	1.875	2.125	11.75	4.00	1.50	2.50	6.75	4.00	1.50	2.50	12.00	4.00	1.75	2.25	5.25	4.00	1.00	3.00
12.50	4.75	.....	.....	12.50	5.00	2.125	2.875	7.00	5.00	2.125	2.875	12.50	5.00	2.25	2.75	6.50	5.00	1.75	3.25
.....	.....	.....	.....	13.25	6.00	2.75	3.25	7.75	6.00	2.75	3.25	13.50	6.00	2.875	3.125	6.75	6.00	.....	.....
.....	.....	.....	.....	15.00	7.00	3.375	3.625	8.50	7.00	3.25	3.75	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	17.50	8.00	4.00	4.00	9.75	8.00	4.00	4.00	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	19.50	9.00	5.00	4.00	10.75	8.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	19.50	9.25	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11.25	1.00	0.125	0.875	6.50	1.00	0.125	0.875	5.50	1.00	0.125	0.875	6.00	1.00	0.125	0.875	8.50	1.00	0.25	0.75
12.50	2.00	0.625	1.375	7.00	2.00	0.625	1.375	6.25	2.00	0.75	1.25	7.00	2.00	0.75	1.25	11.00	2.00	0.875	1.125
12.50	3.00	1.00	2.00	7.25	3.00	1.125	1.875	6.50	3.00	1.125	1.875	7.50	3.00	.....	.....	12.00	3.00	1.125	1.875
12.75	4.00	1.50	2.50	7.50	4.00	1.75	2.25	6.75	4.00	1.875	2.125	.....	.....	.....	.....	12.50	4.00	1.75	2.25
13.00	5.00	2.25	2.75	7.75	5.00	2.25	2.75	7.00	5.00	2.25	2.75	.....	.....	.....	.....	13.25	5.00	2.25	2.75
14.00	6.00	2.75	3.25	8.50	6.00	2.875	3.125	7.50	6.00	3.00	3.00	.....	.....	.....	.....	13.75	6.00	2.875	3.125
17.00	7.00	3.25	3.75	9.50	7.00	3.50	3.50	8.25	7.00	3.625	3.375	.....	.....	.....	.....	15.00	6.50	.....	.....
19.50	7.75	.....	.....	10.75	8.00	4.25	3.75	9.50	8.00	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	11.50	8.50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5.50	1.00	0.125	0.875	5.50	1.00	0.125	0.875	8.25	1.00	0.00	1.00	8.75	1.00	0.125	0.875	6.50	1.00	0.125	0.875
6.00	2.00	0.75	1.25	6.00	2.00	0.75	1.25	8.50	2.00	0.625	1.375	10.50	2.00	0.75	1.25	7.25	2.00	0.75	1.25
6.25	3.00	1.125	1.875	6.50	3.00	1.125	1.875	8.50	3.00	1.00	2.00	10.50	3.00	1.125	1.875	7.50	3.00	1.125	1.875
6.50	4.00	1.75	2.25	6.50	4.00	1.75	2.25	8.75	4.00	1.50	2.50	11.00	4.00	1.75	2.25	7.75	4.00	1.75	2.25
6.50	5.00	2.25	2.75	7.00	5.00	2.25	2.75	9.50	5.00	2.25	2.75	11.50	5.00	2.25	2.75	8.50	5.00	2.25	2.75
6.75	6.00	2.875	3.125	7.25	6.00	3.00	3.00	10.25	6.00	2.875	3.125	12.25	6.00	2.875	3.125	9.00	6.00	2.875	3.125
7.75	7.00	3.50	3.50	8.25	7.00	3.625	3.375	.....	.....	.....	.....	13.75	7.00	3.625	3.375	10.00	7.00	3.50	3.50
9.25	8.00	.....	.....	9.75	8.00	.....	.....	.....	.....	.....	.....	15.75	8.00	4.125	3.875	10.75	7.25	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16.75	8.75	.....	.....	.....	.....	.....	.....

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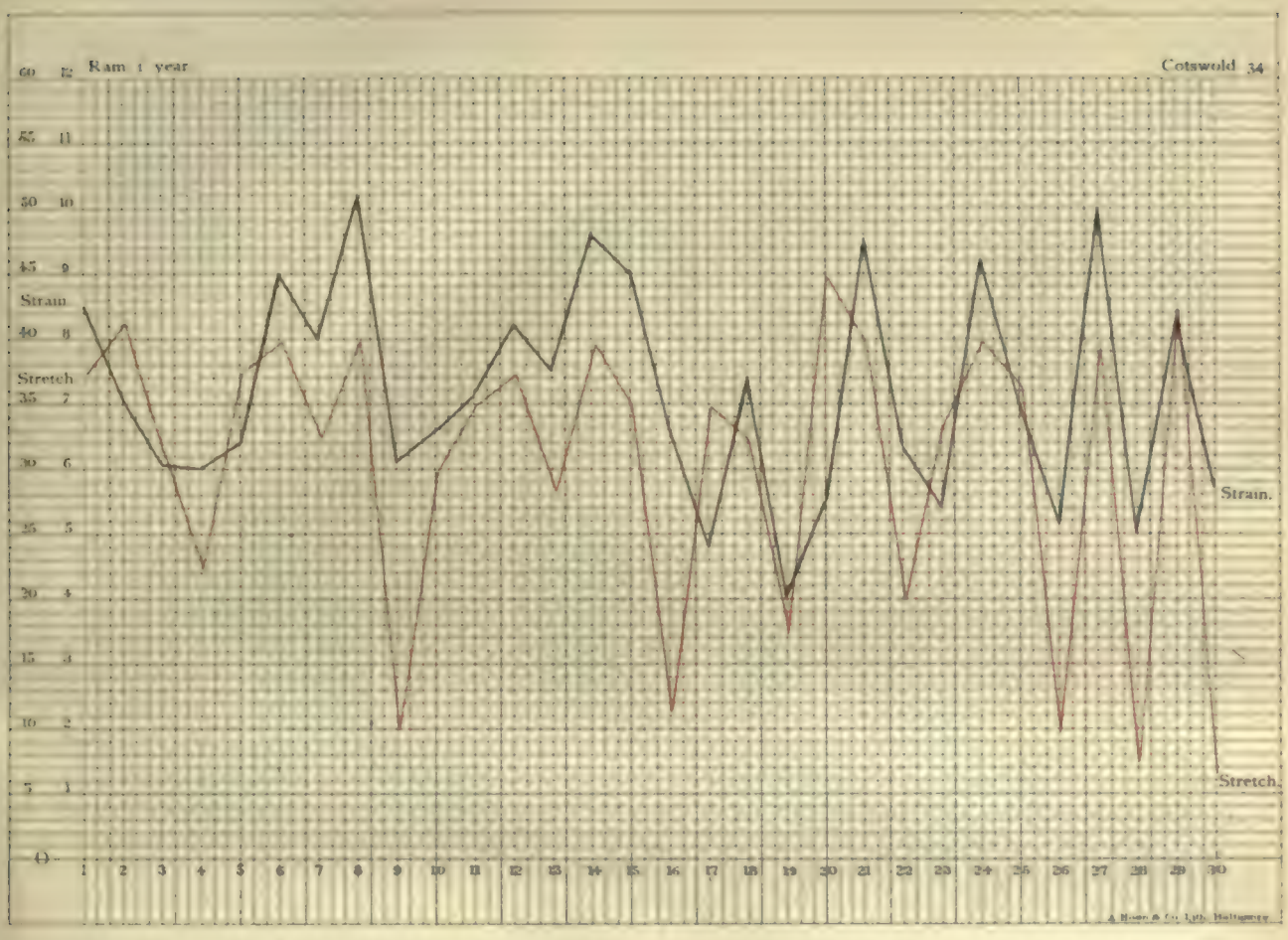
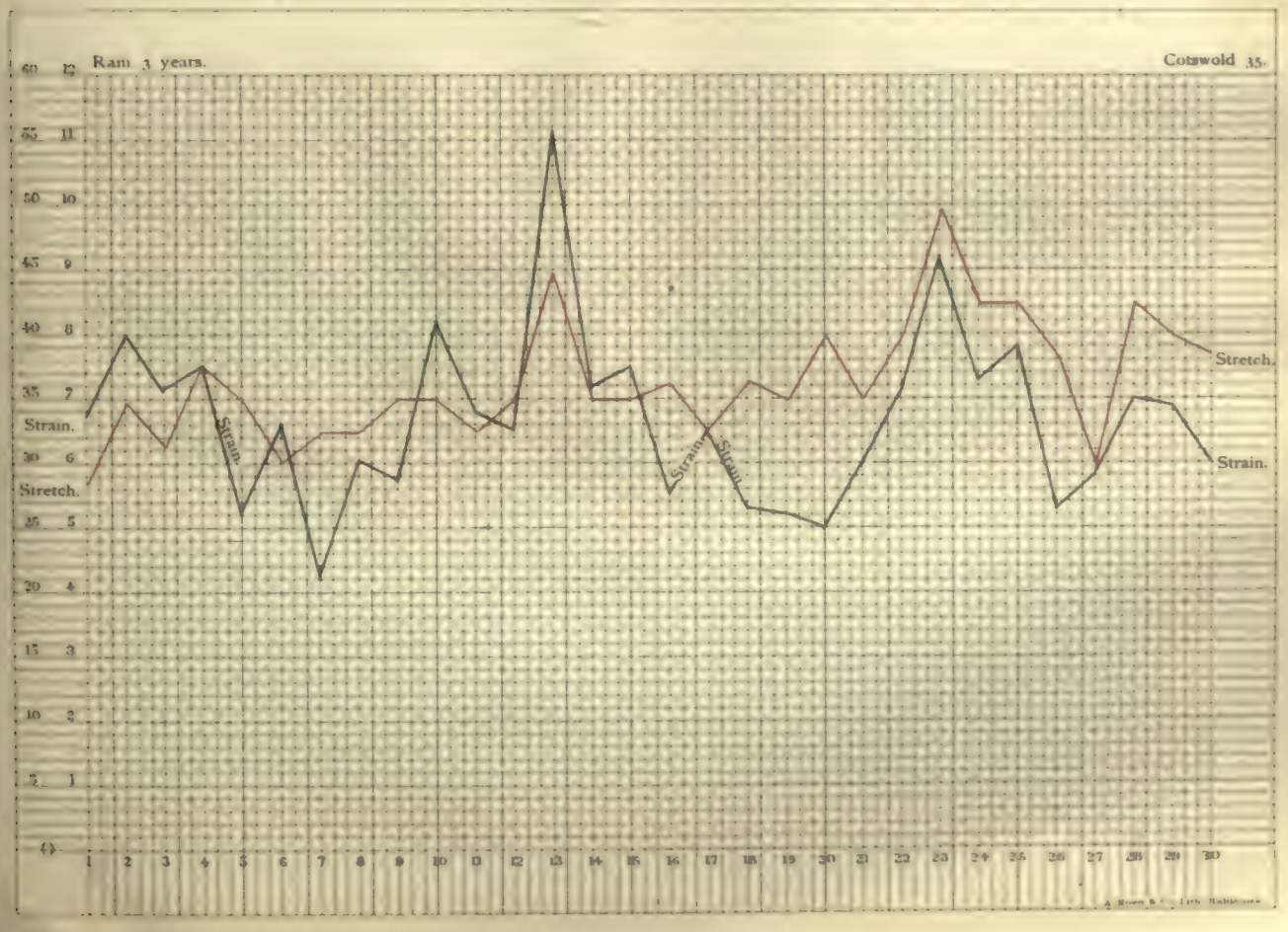
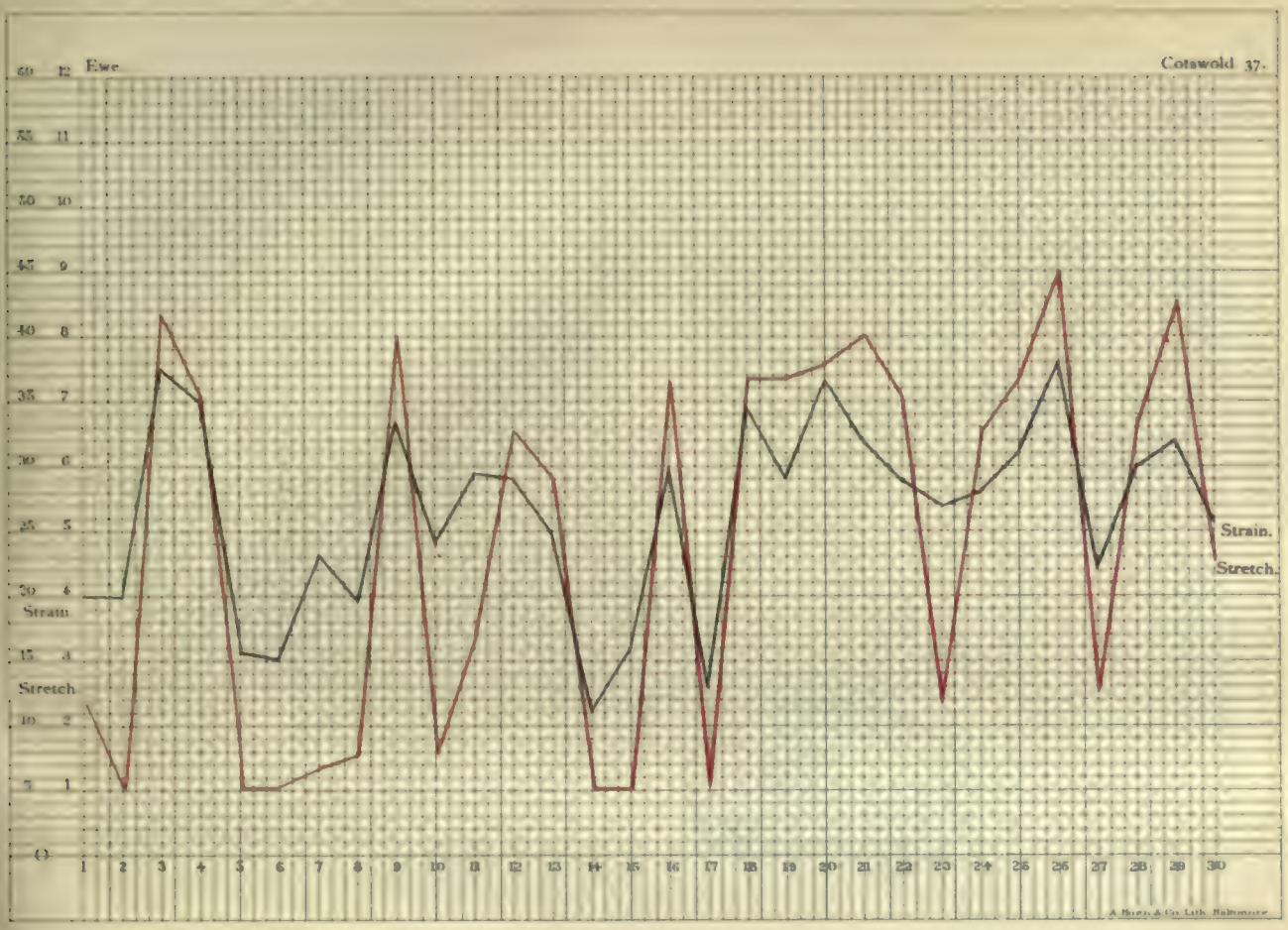
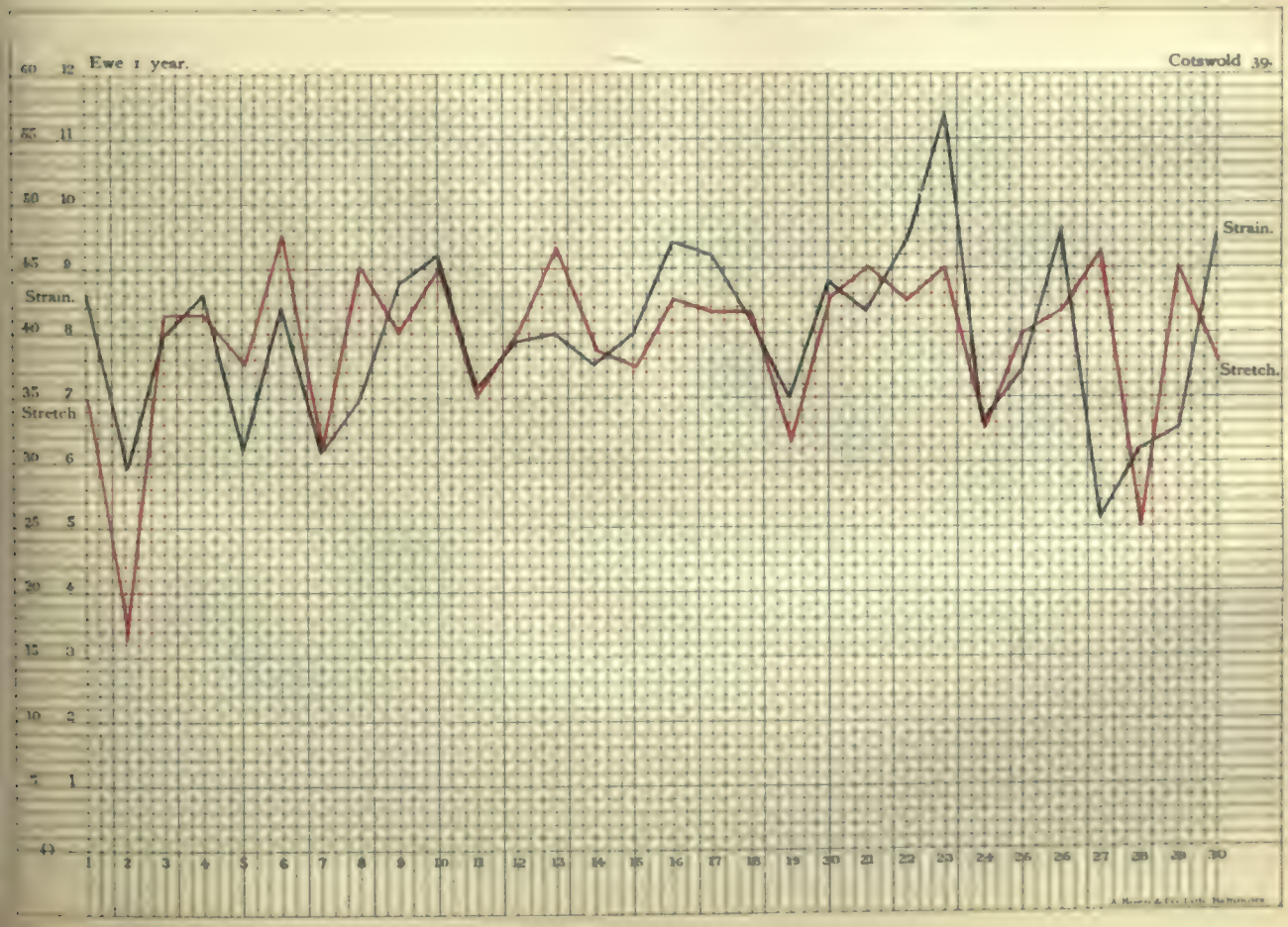

Ram 1 year
Cotswold 34
Strain
Stretch
Strain.
Stretch.


Ram 3 years.
Cotswold 35.
Strain.
Stretch.
Strain.
Strain.
Strain.
Stretch.
Strain.


Ewe.
Cotswold 37.
Strain.
Stretch.
Strain
Stretch
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30


Ewe 1 year.
Cotswold 39.
Strain.
Stretch.
Strain.
Stretch
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

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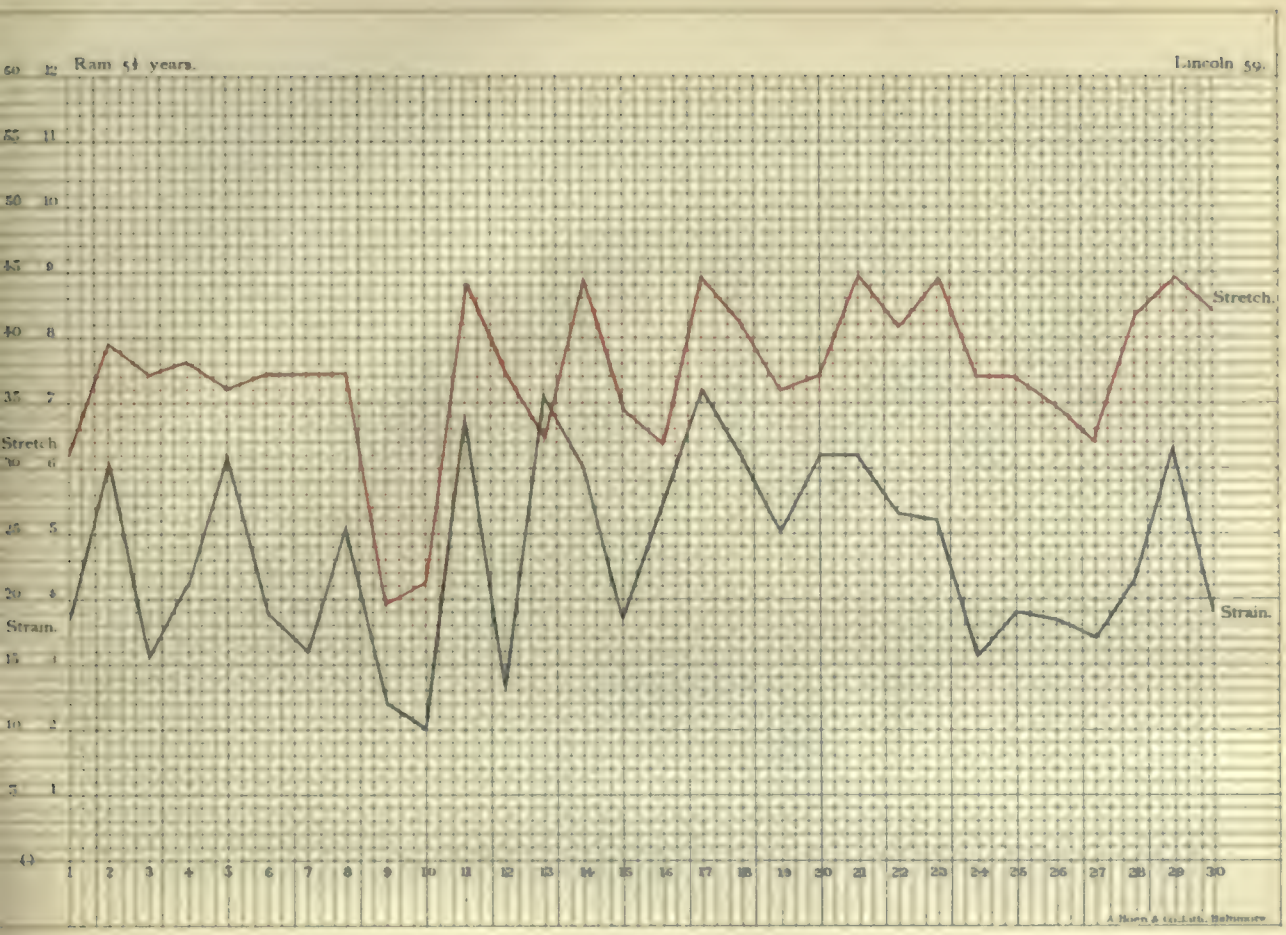
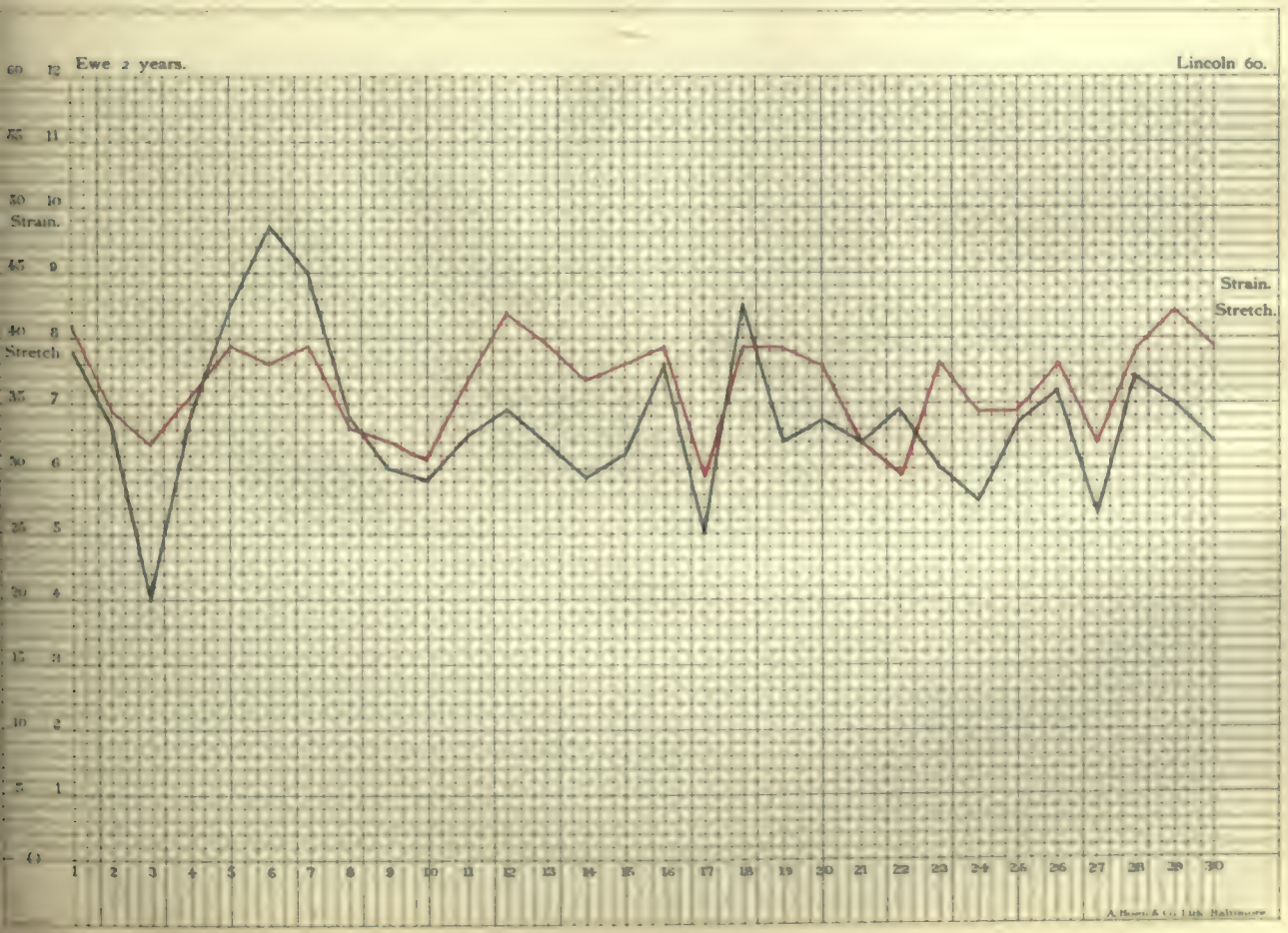

Ram 5½ years.
Lincoln 59.
Stretch.
Strain.
Stretch
Strain.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30


Ewe 2 years.
Lincoln 60.
Strain.
Stretch
Strain.
Stretch.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

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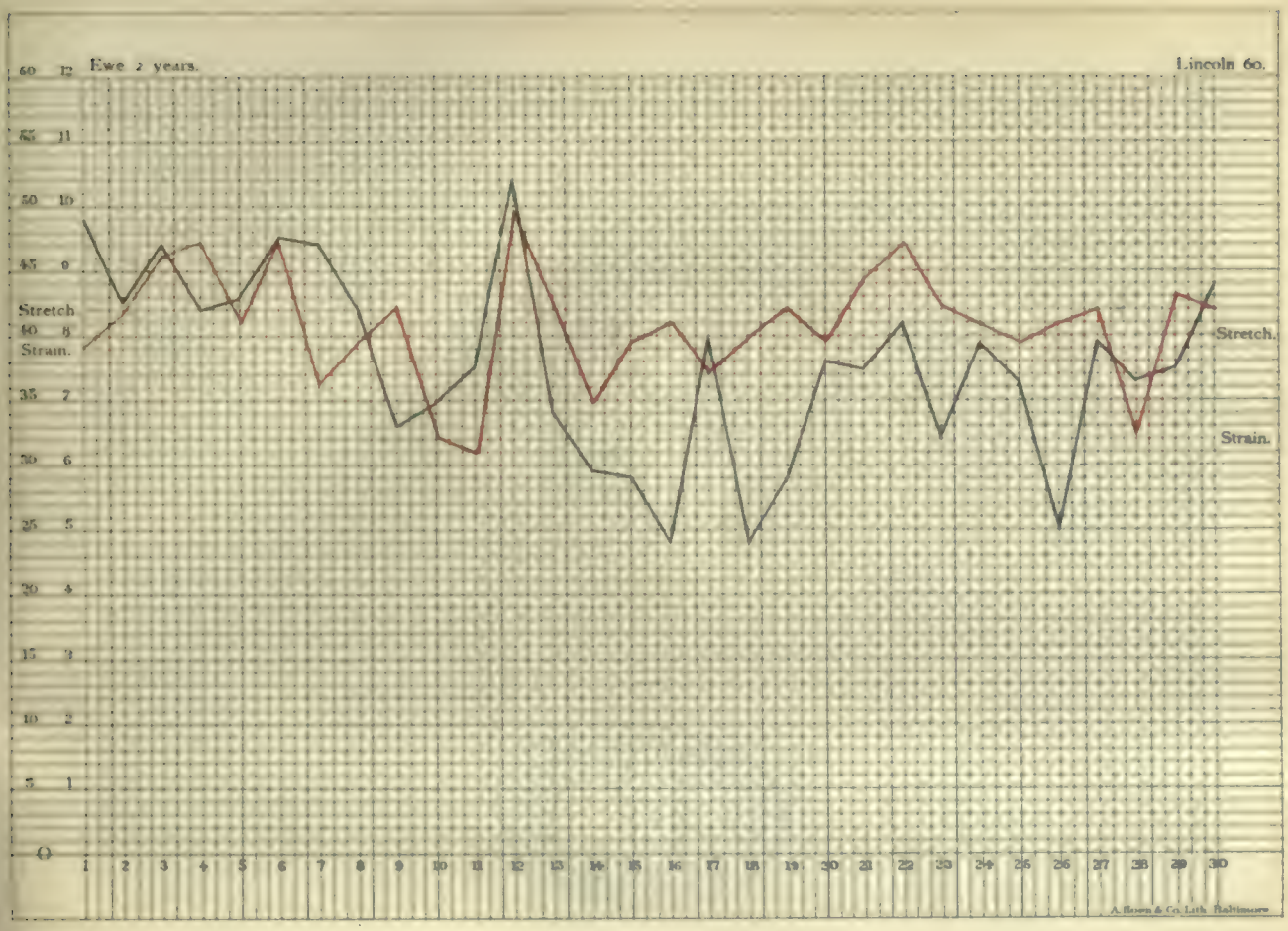
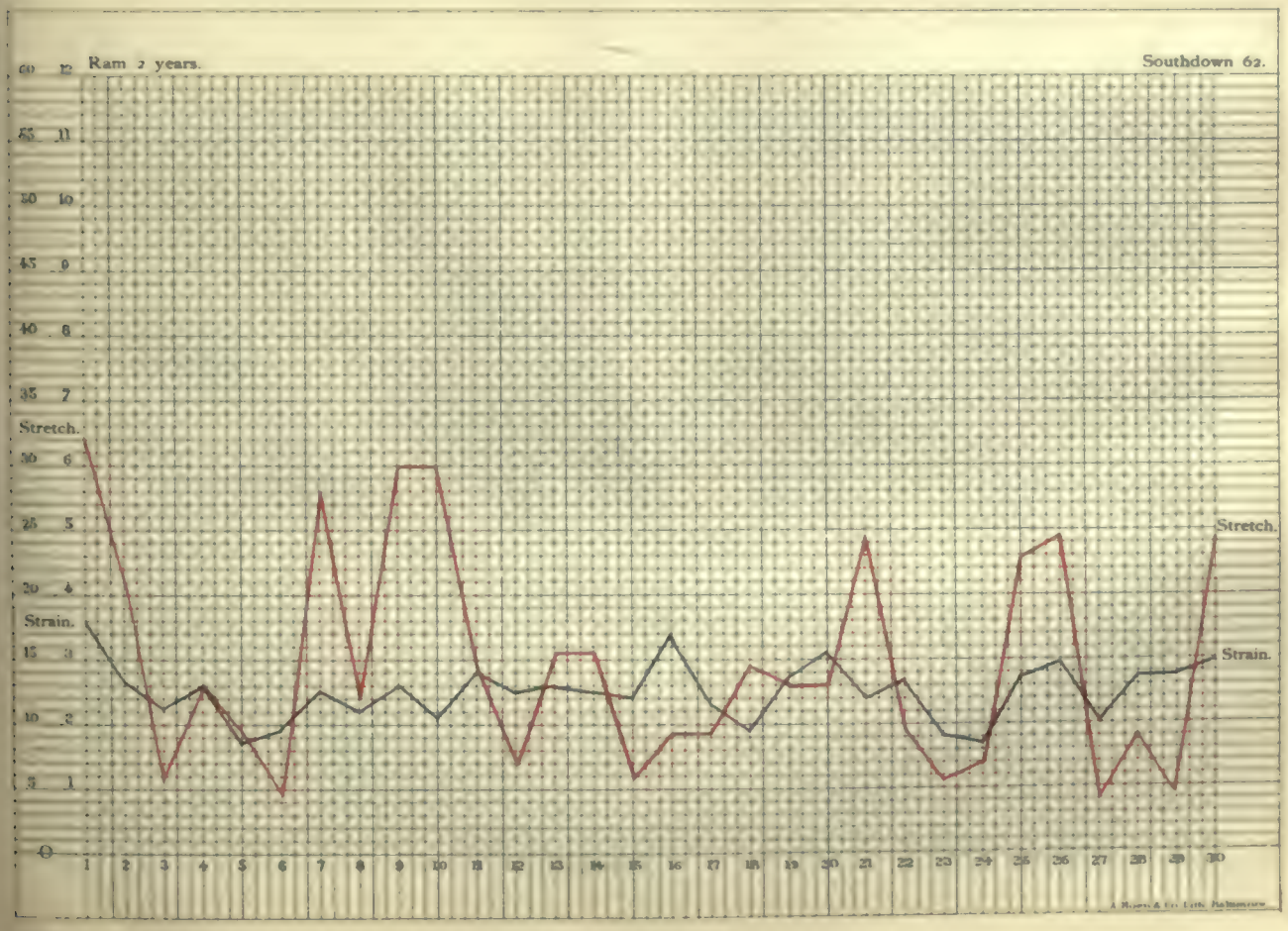
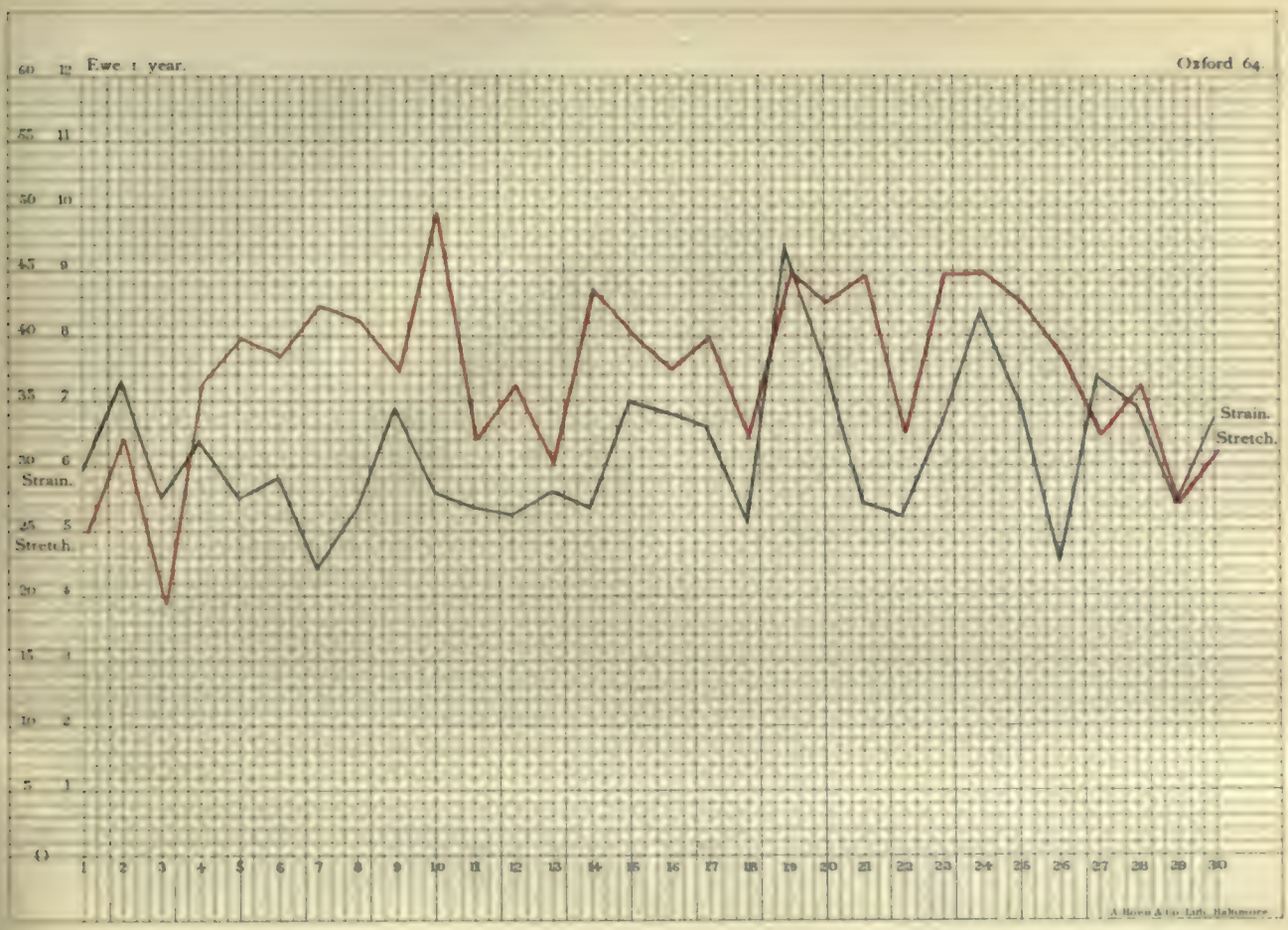
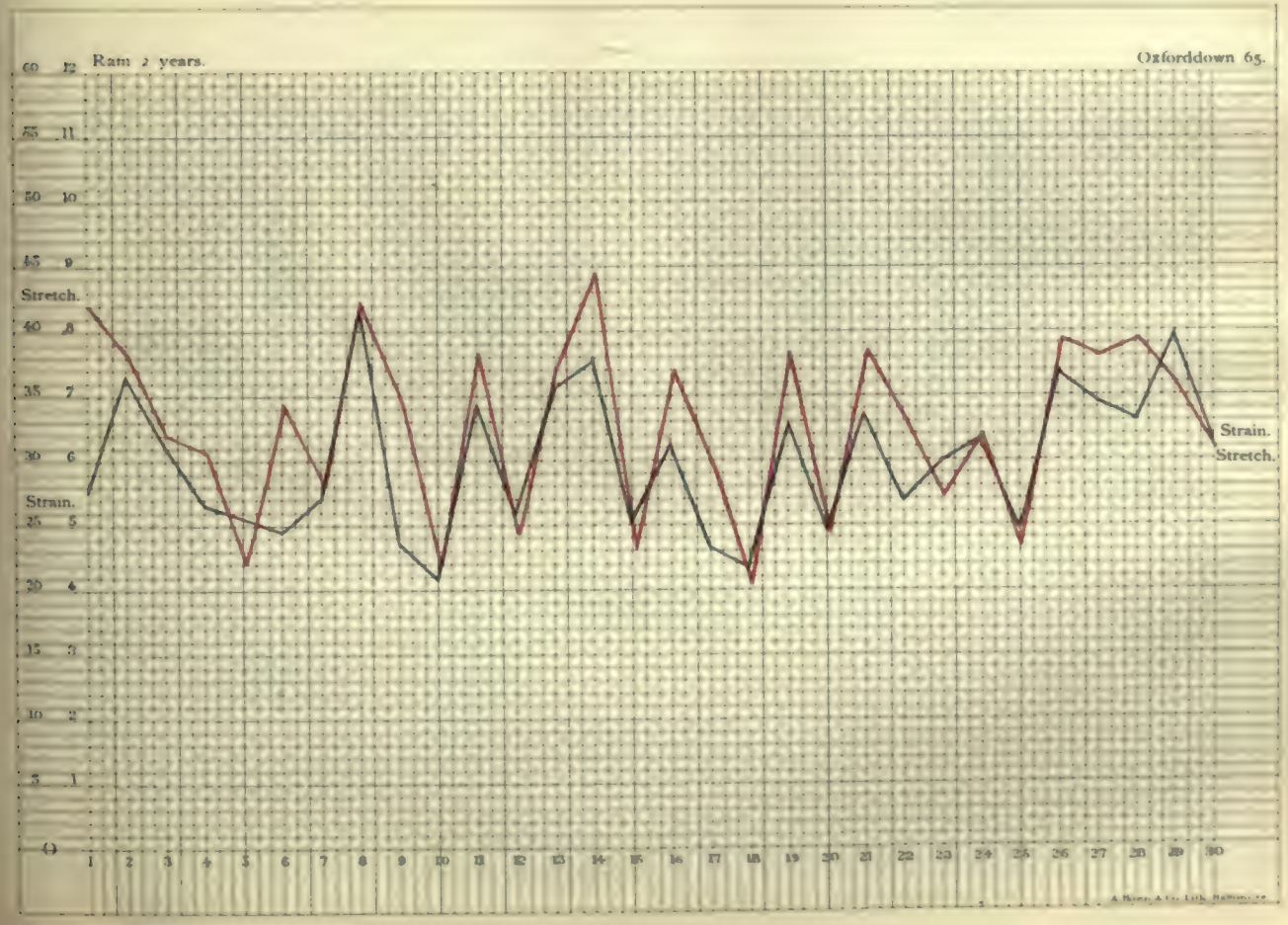
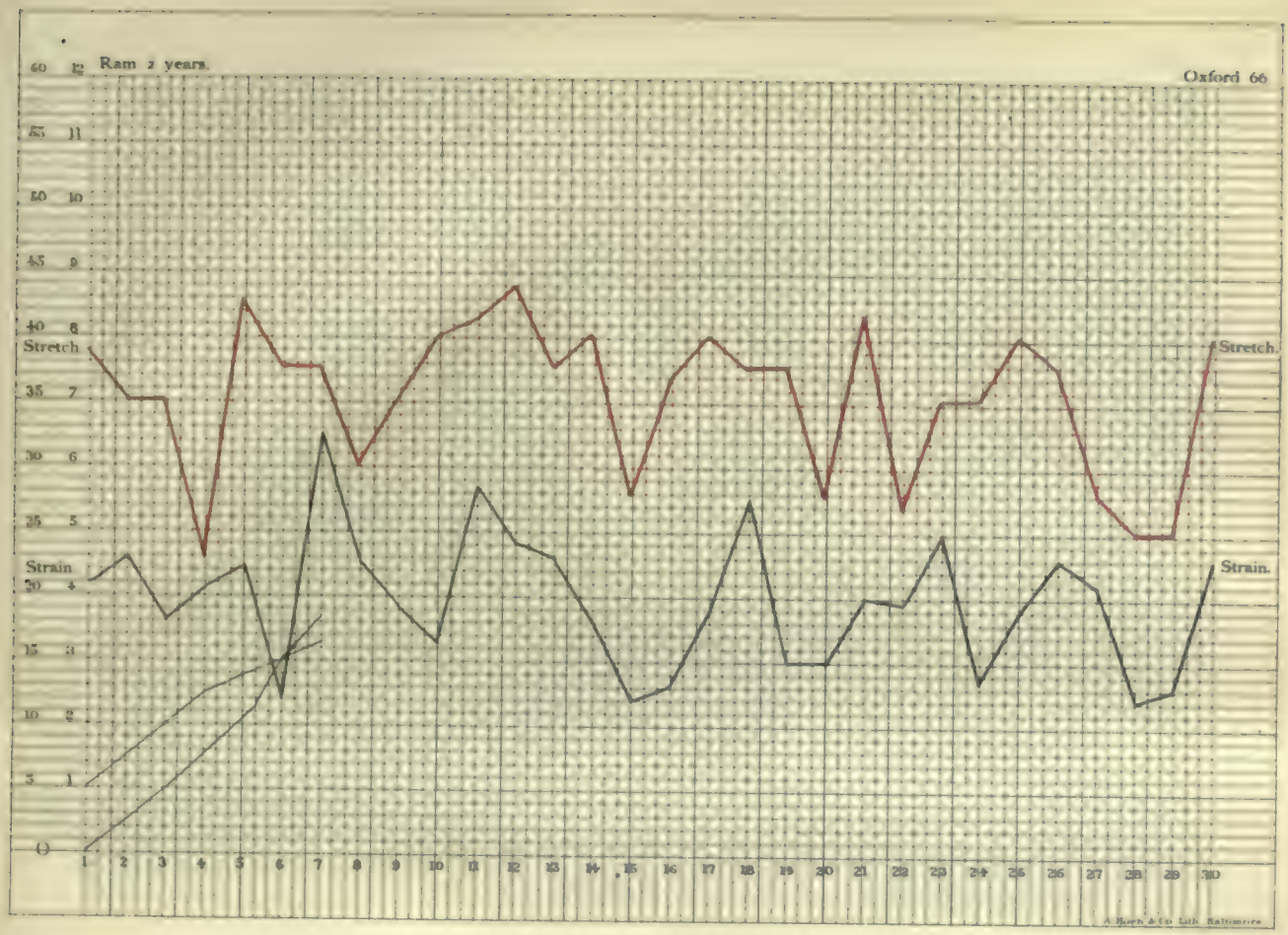
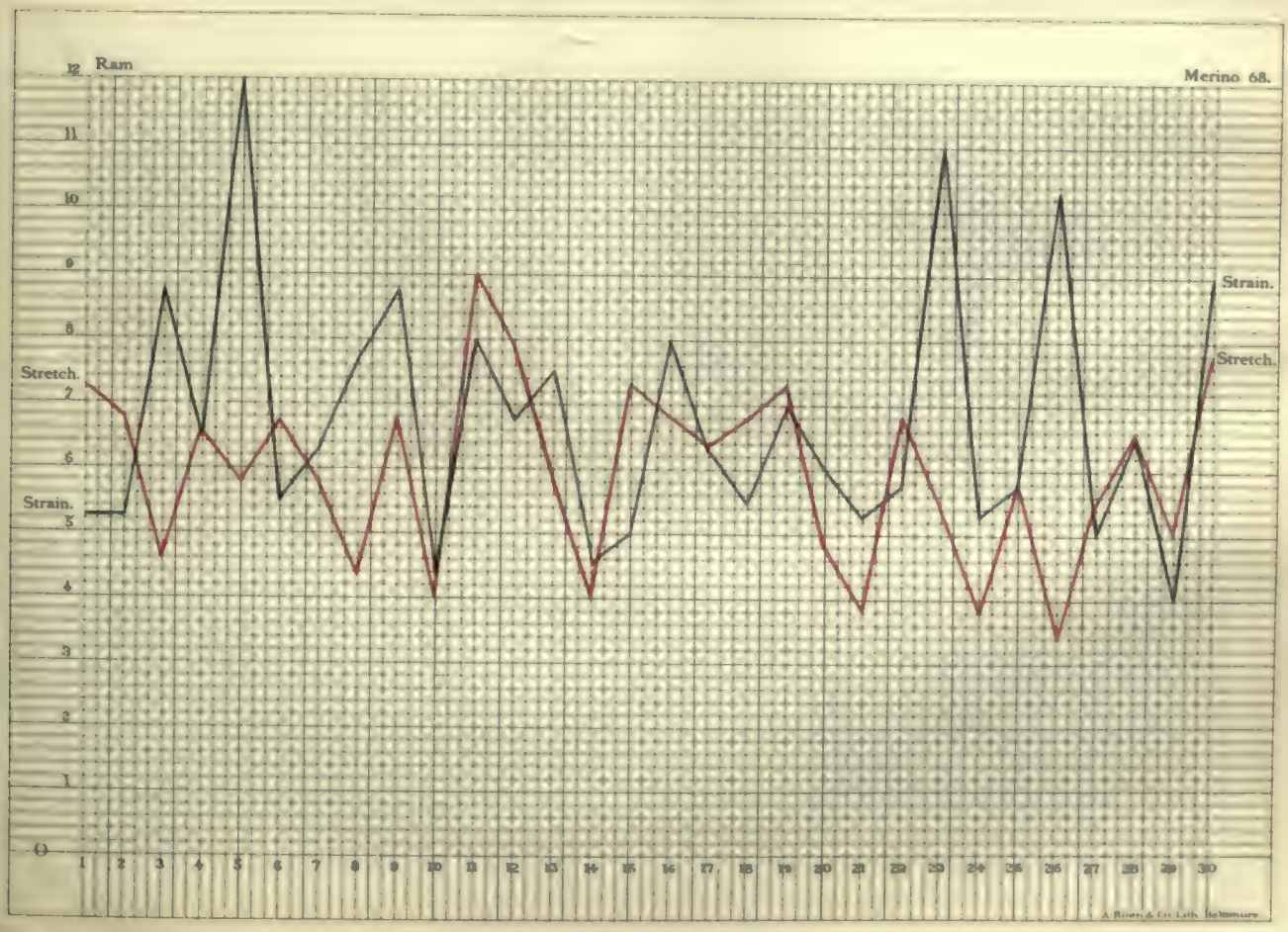

Ewe 2 years.
Lincoln 60.
Stretch
Strain.
Stretch.
Strain.
60 12
55 11
50 10
45 9
40 8
35 7
30 6
25 5
20 4
15 3
10 2
5 1
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30


Ram 2 years.
Southdown 62.
Stretch.
Strain.
Stretch.
Strain.
60 12
55 11
50 10
45 9
40 8
35 7
30 6
25 5
20 4
15 3
10 2
5 1
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30


Ewe 1 year.
Oxford 64.
Strain.
Stretch.
Strain.
Stretch.


Ram 2 years.
Oxforddown 65.
Stretch.
Strain.
Strain.
Stretch.


Ram 2 years.
Oxford 66
Stretch.
Strain.
Stretch.
Strain.


Ram
Merino 68.
Strain.
Stretch.
Stretch.
Strain.

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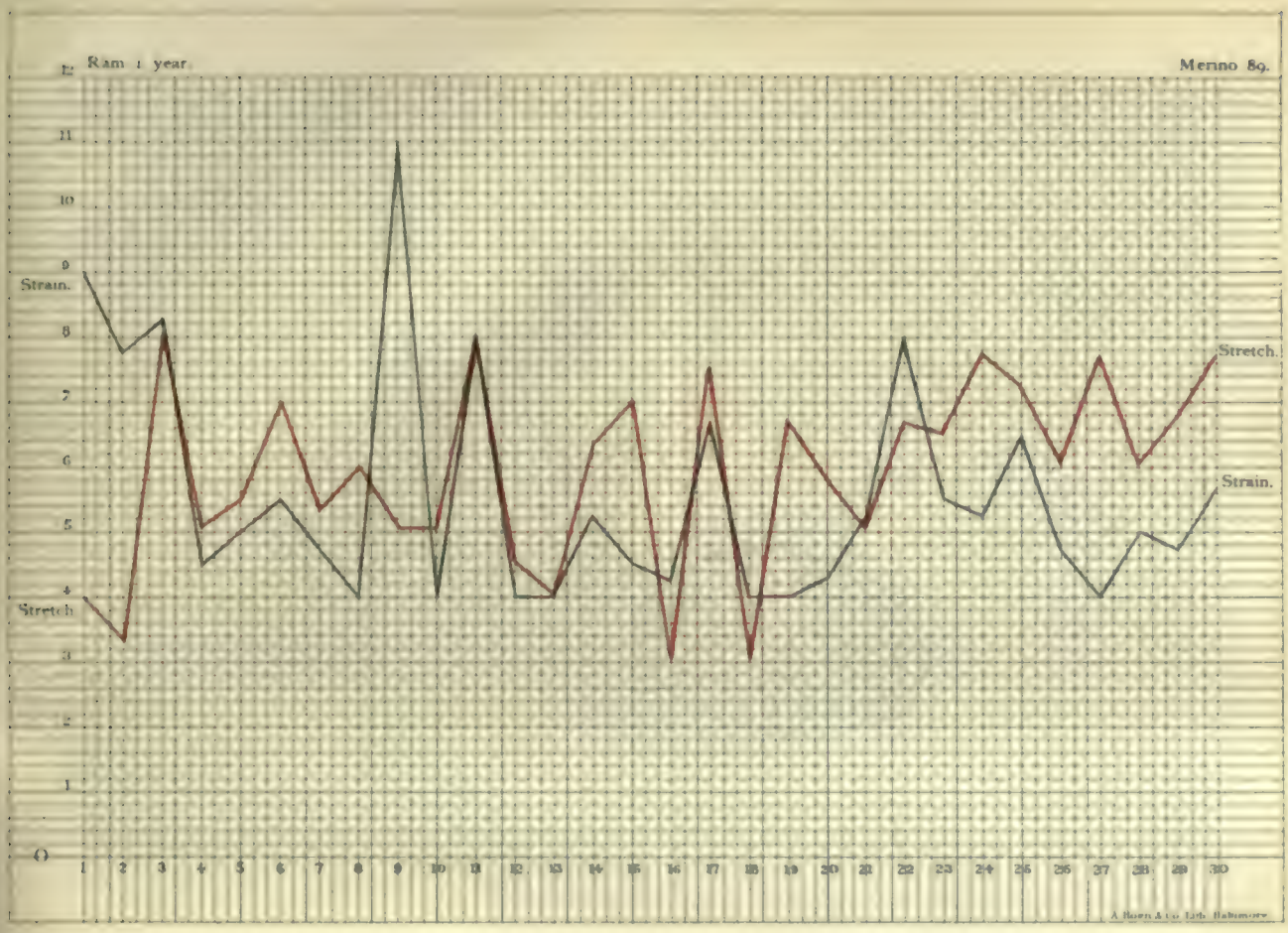
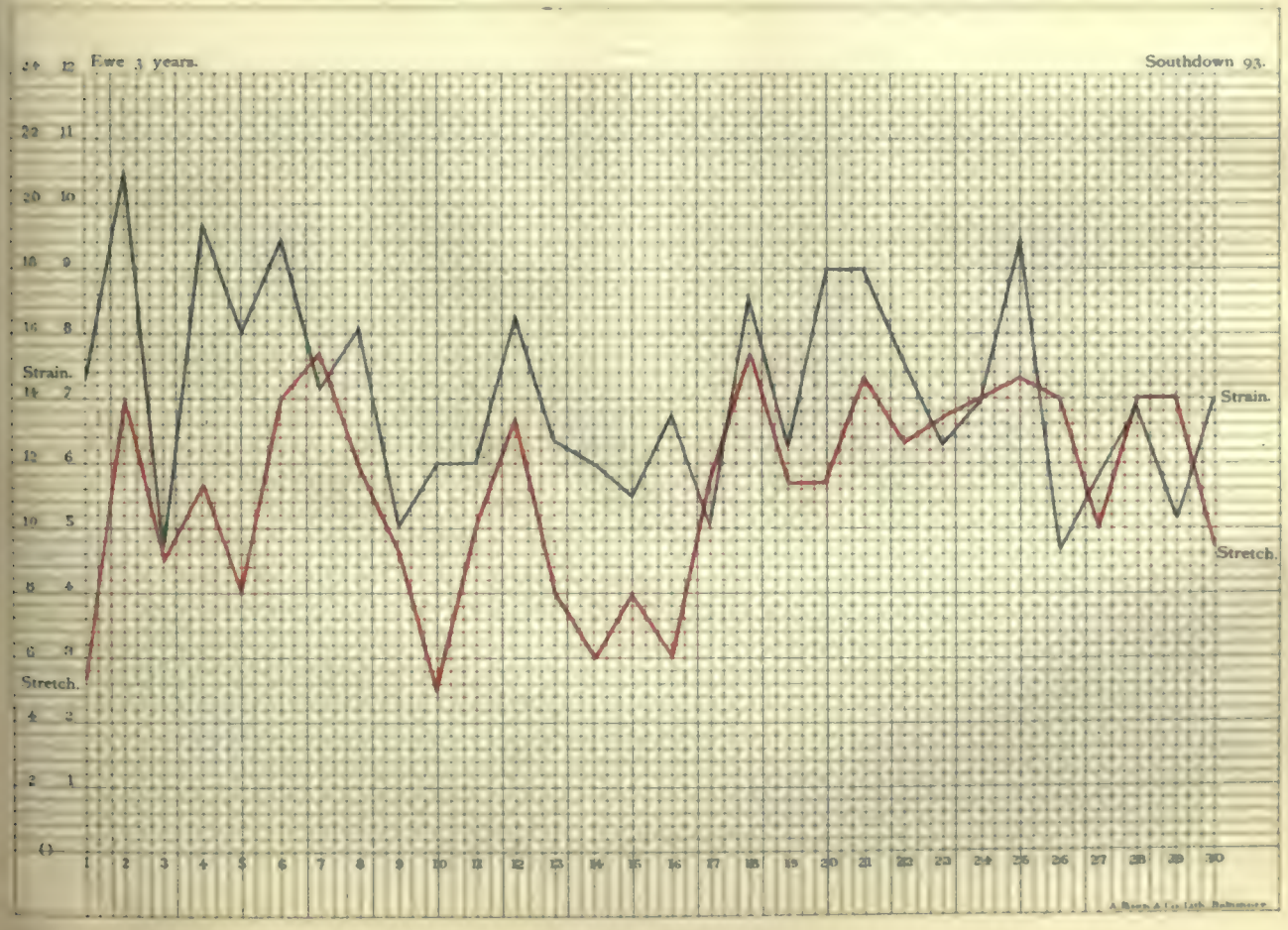

Ram 1 year.
Merino 89.
Strain.
Stretch.
Stretch.
Strain.
0
1
2
3
4
5
6
7
8
9
10
11
12
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30


Ewe 3 years.
Southdown 93.
Strain.
Stretch.
Strain.
Stretch.
0
1
2
3
4
5
6
7
8
9
10
11
12
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

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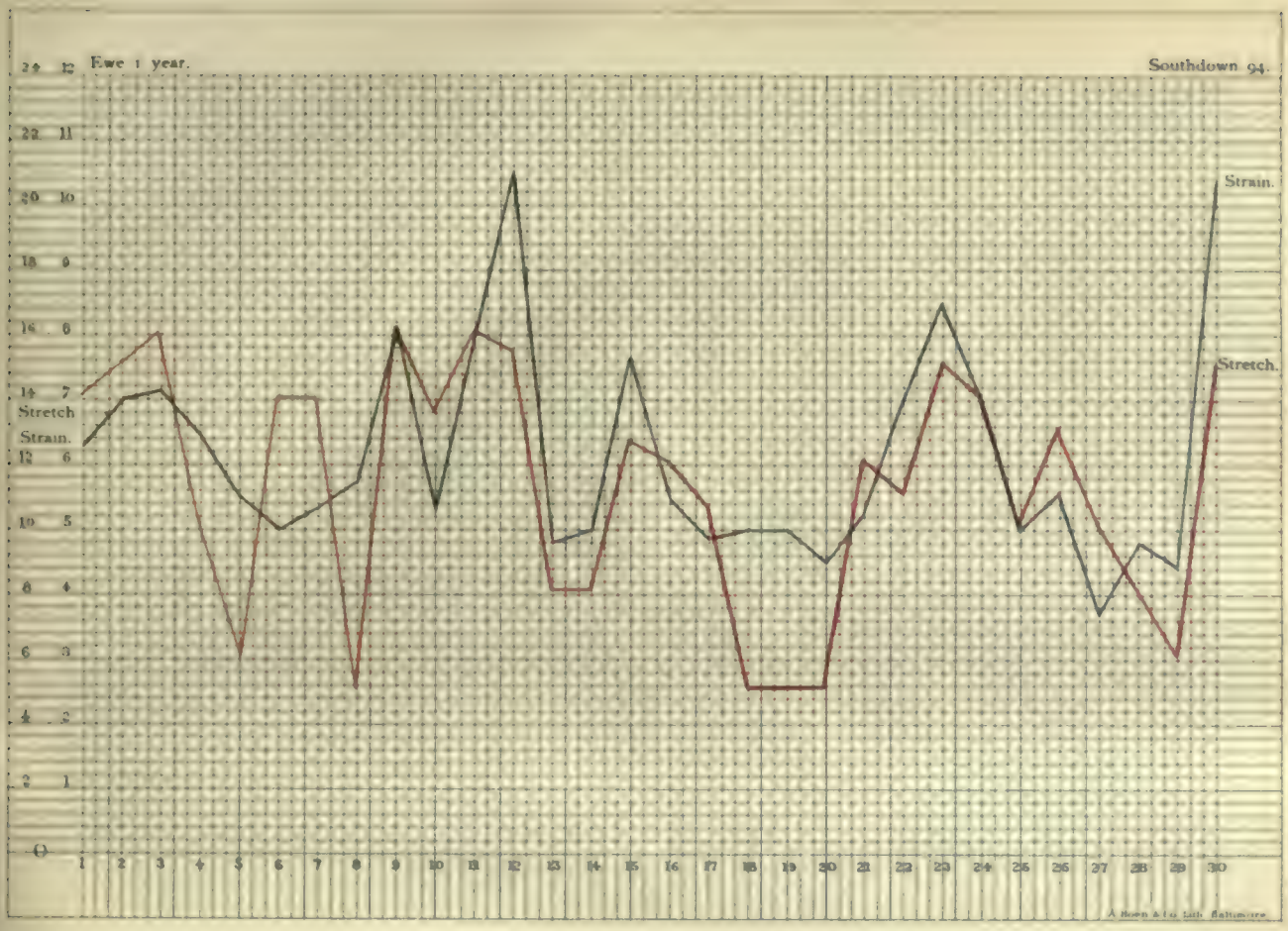
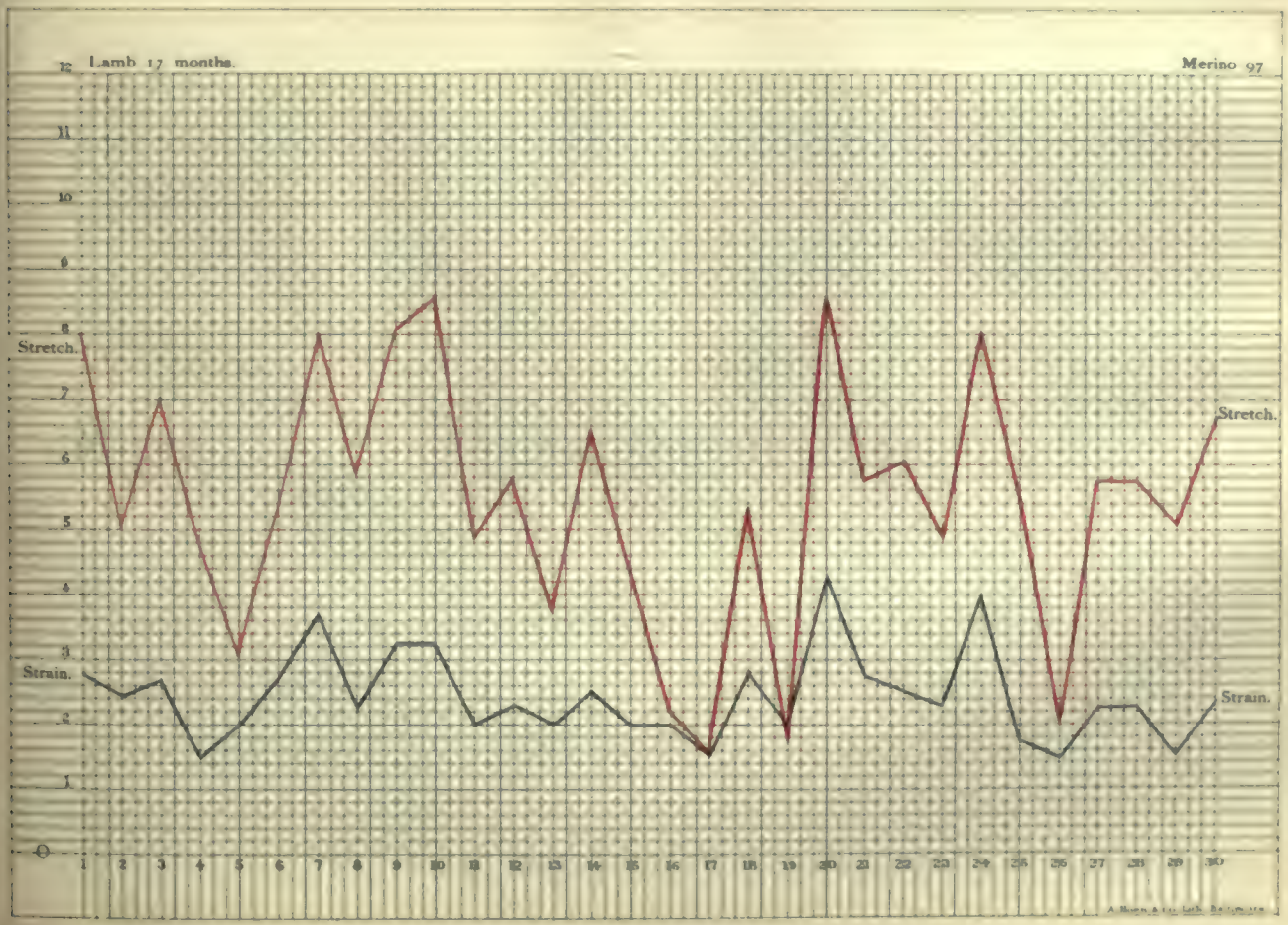
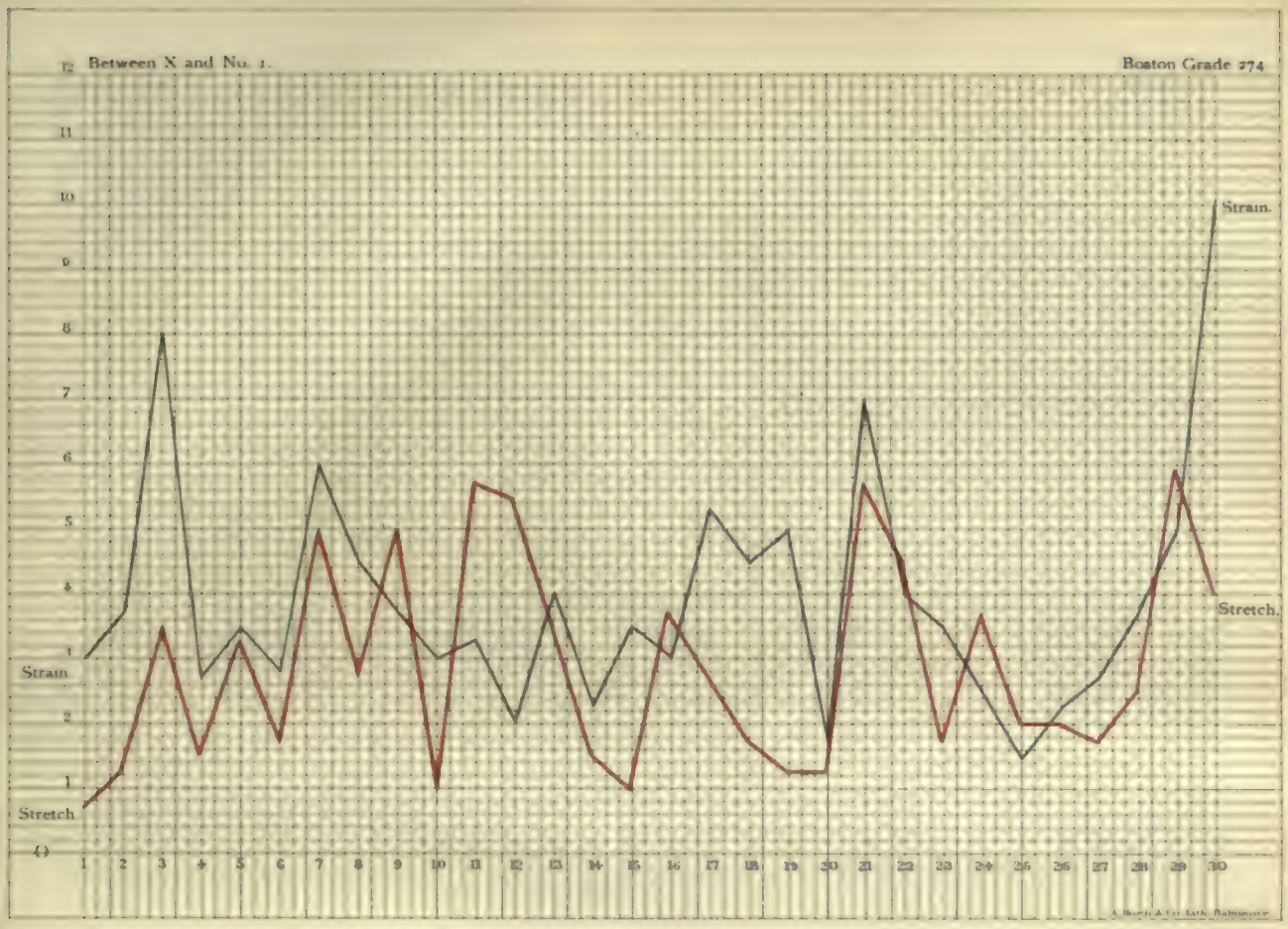
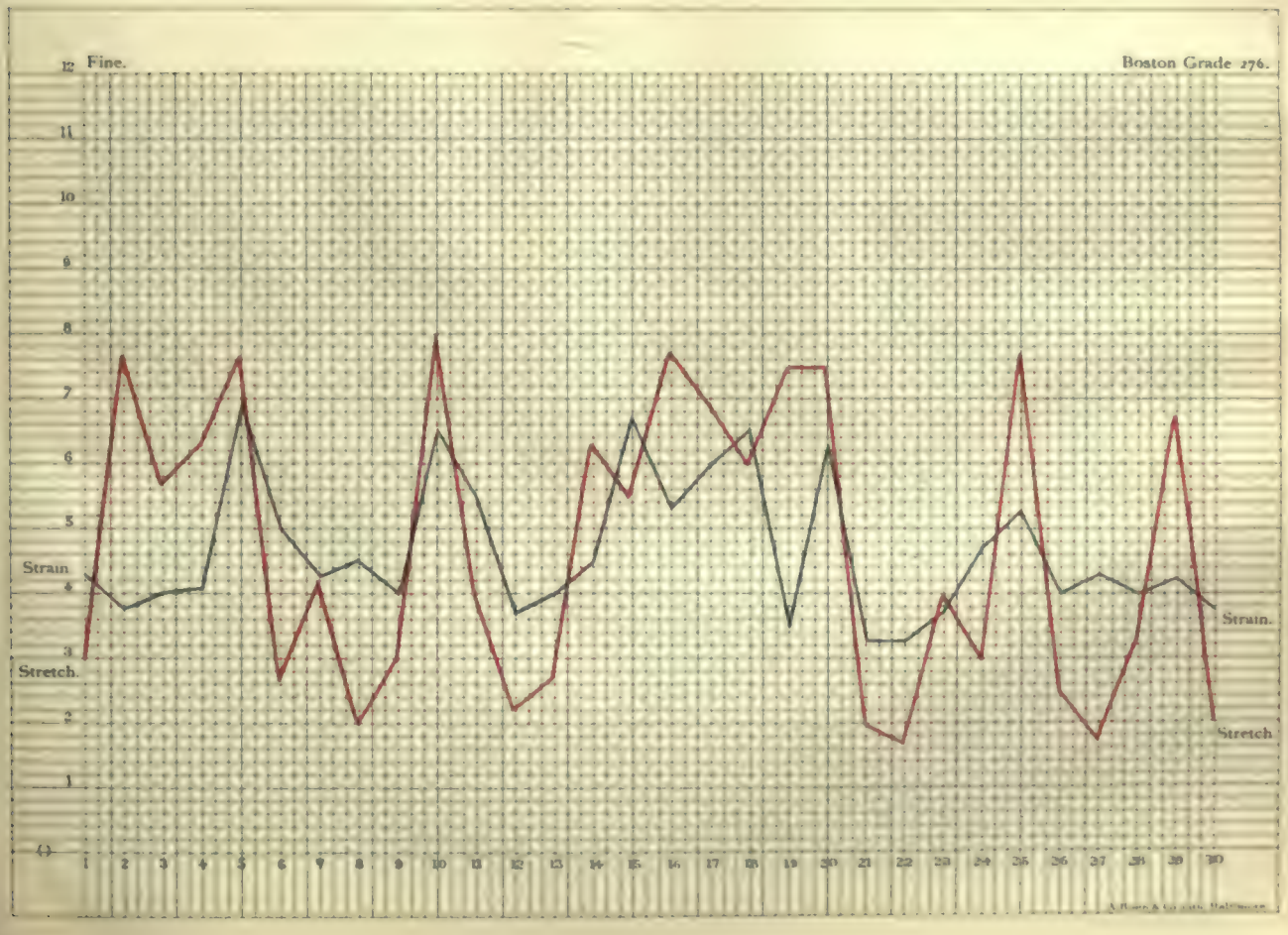
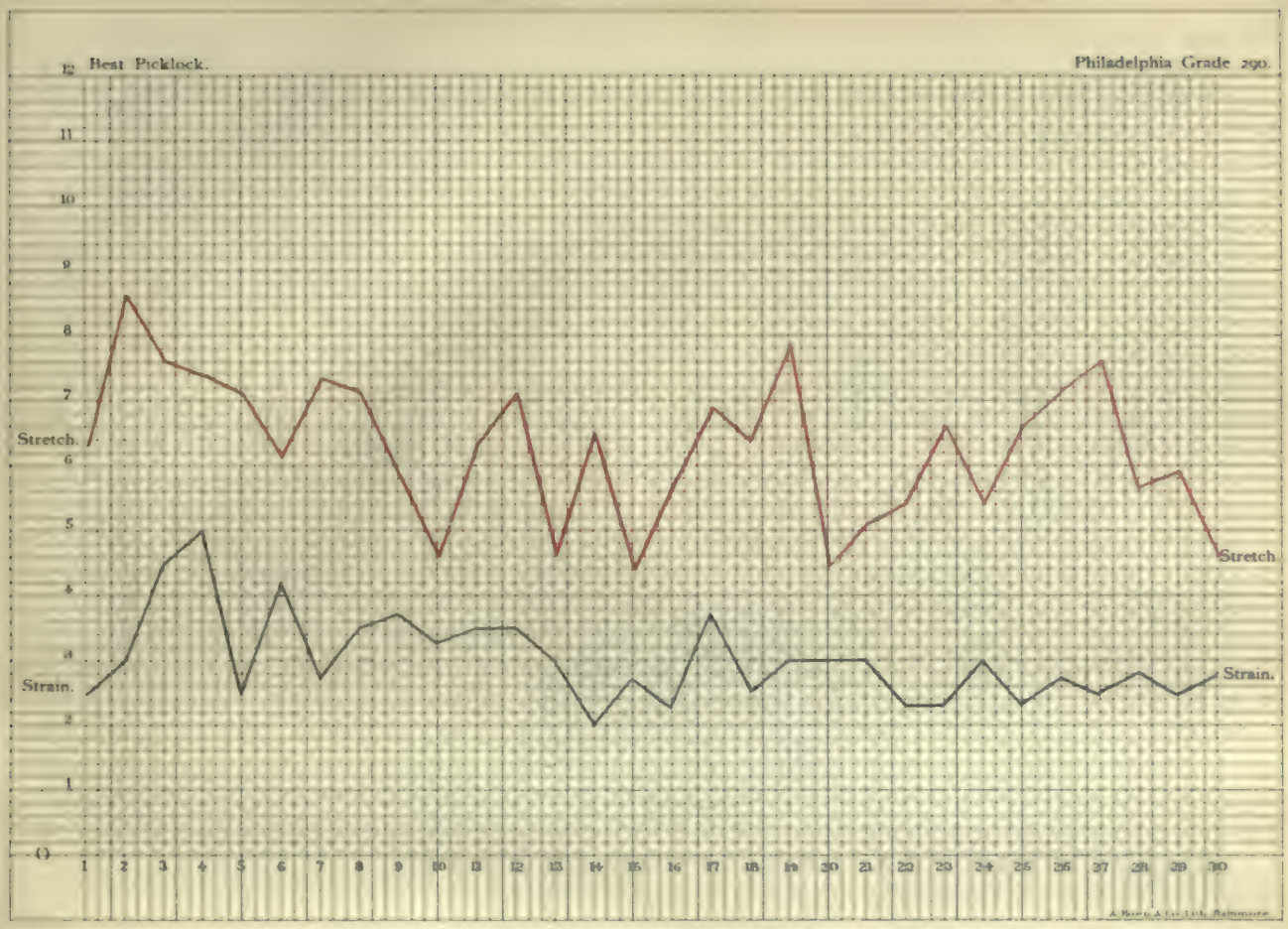
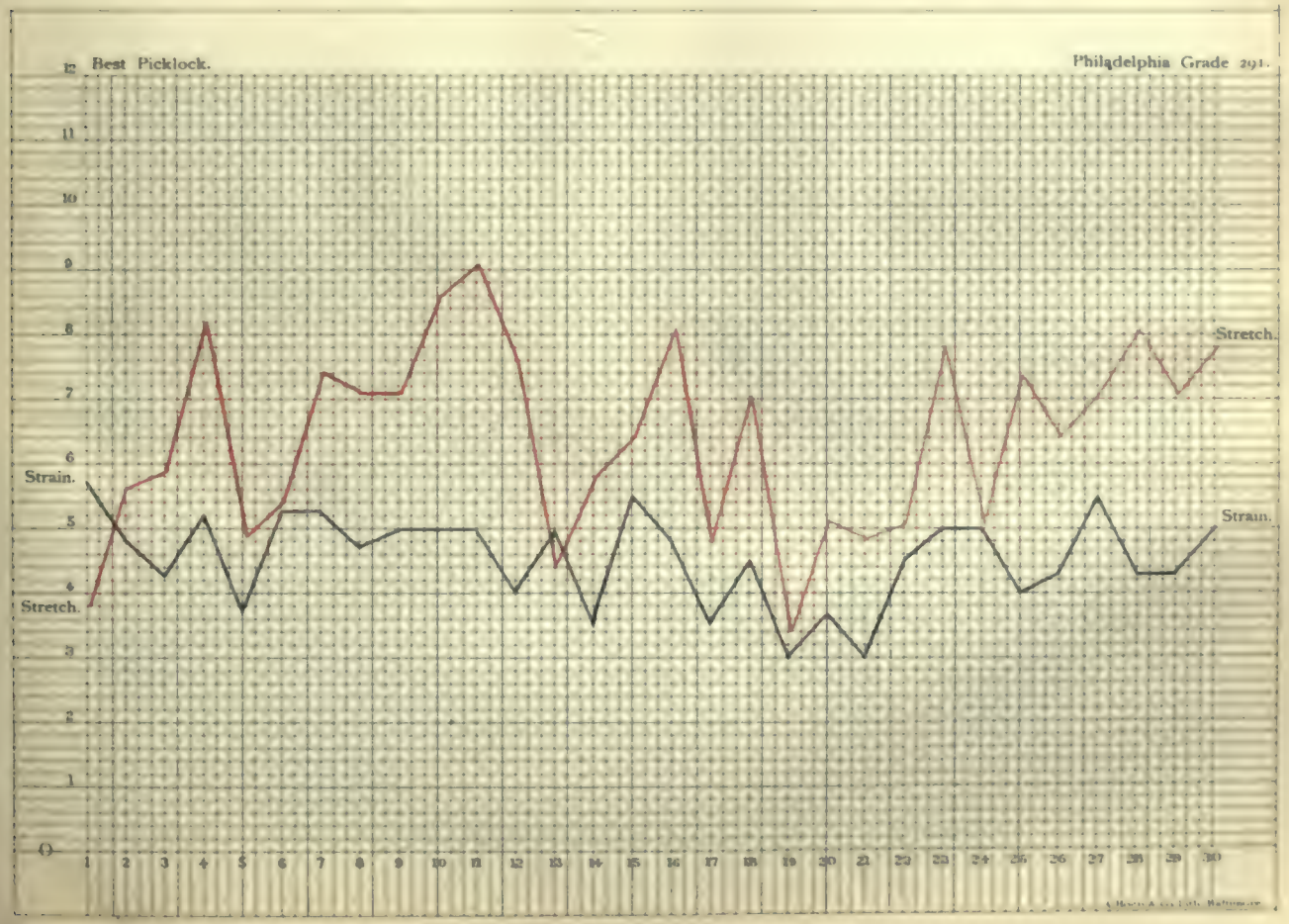

Ewe 1 year.
Southdown 94.
Strain.
Stretch.
Stretch
Strain.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30


Lamb 17 months.
Merino 97
Stretch.
Stretch.
Strain.
Strain.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30


Between X and No. 1.
Boston Grade 274
Strain.
Stretch.
Strain
Stretch
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30


Fine.
Boston Grade 276.
Strain
Stretch.
Strain.
Stretch
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30


Best Picklock.
Philadelphia Grade 290.
Stretch.
Strain.
Stretch
Strain.


Best Picklock.
Philadelphia Grade 291.
Strain.
Stretch.
Stretch.
Strain.

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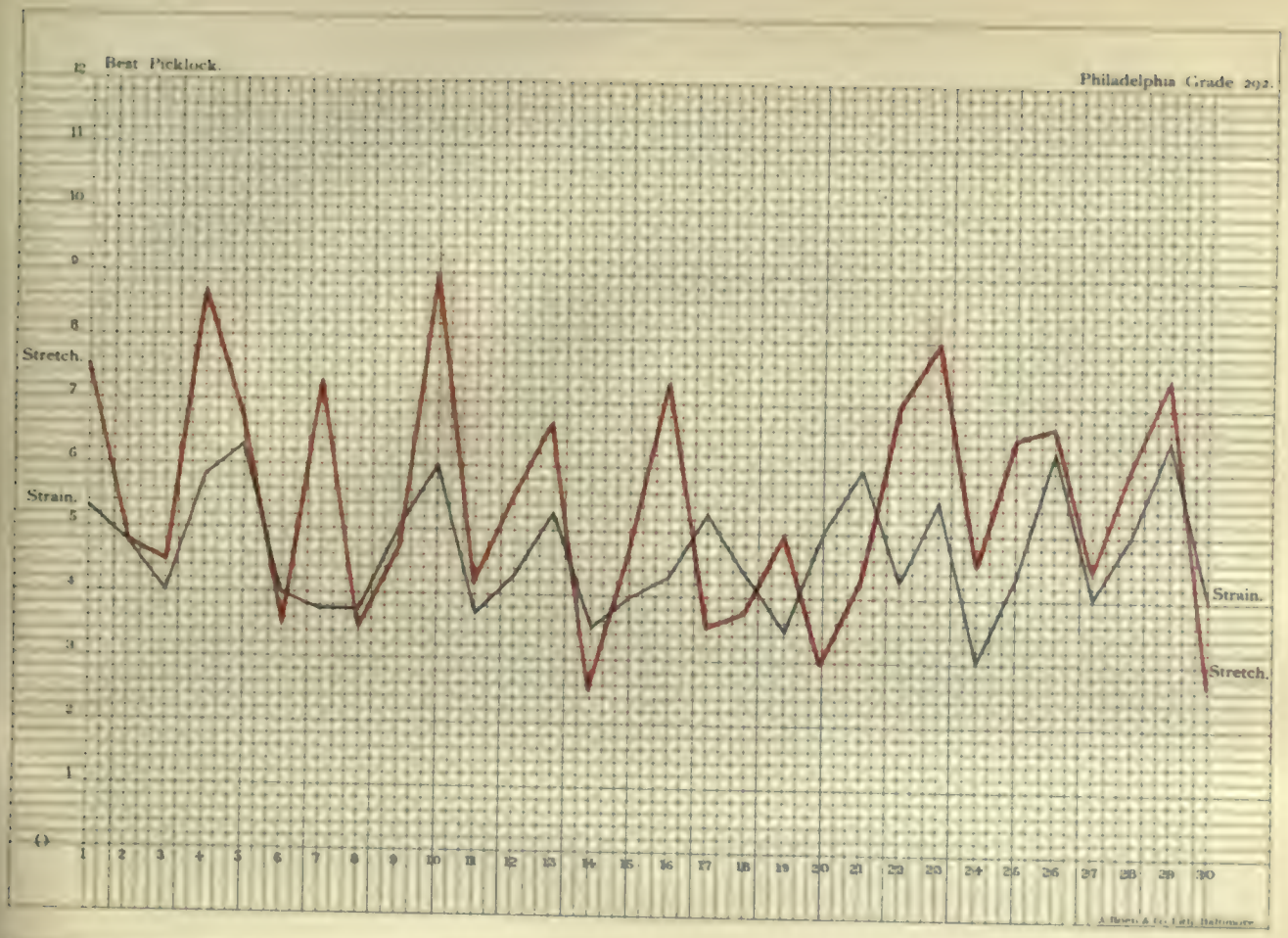
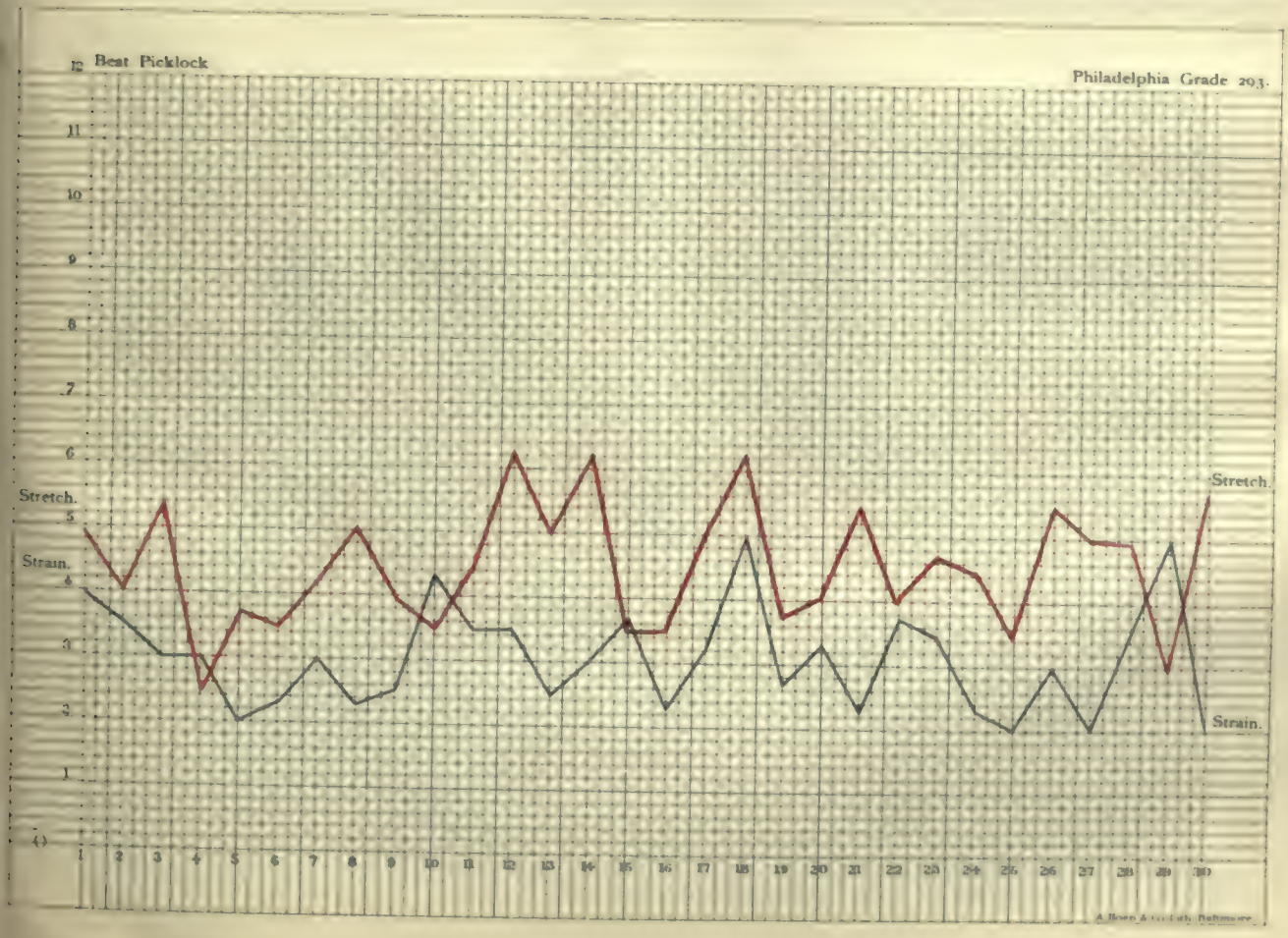
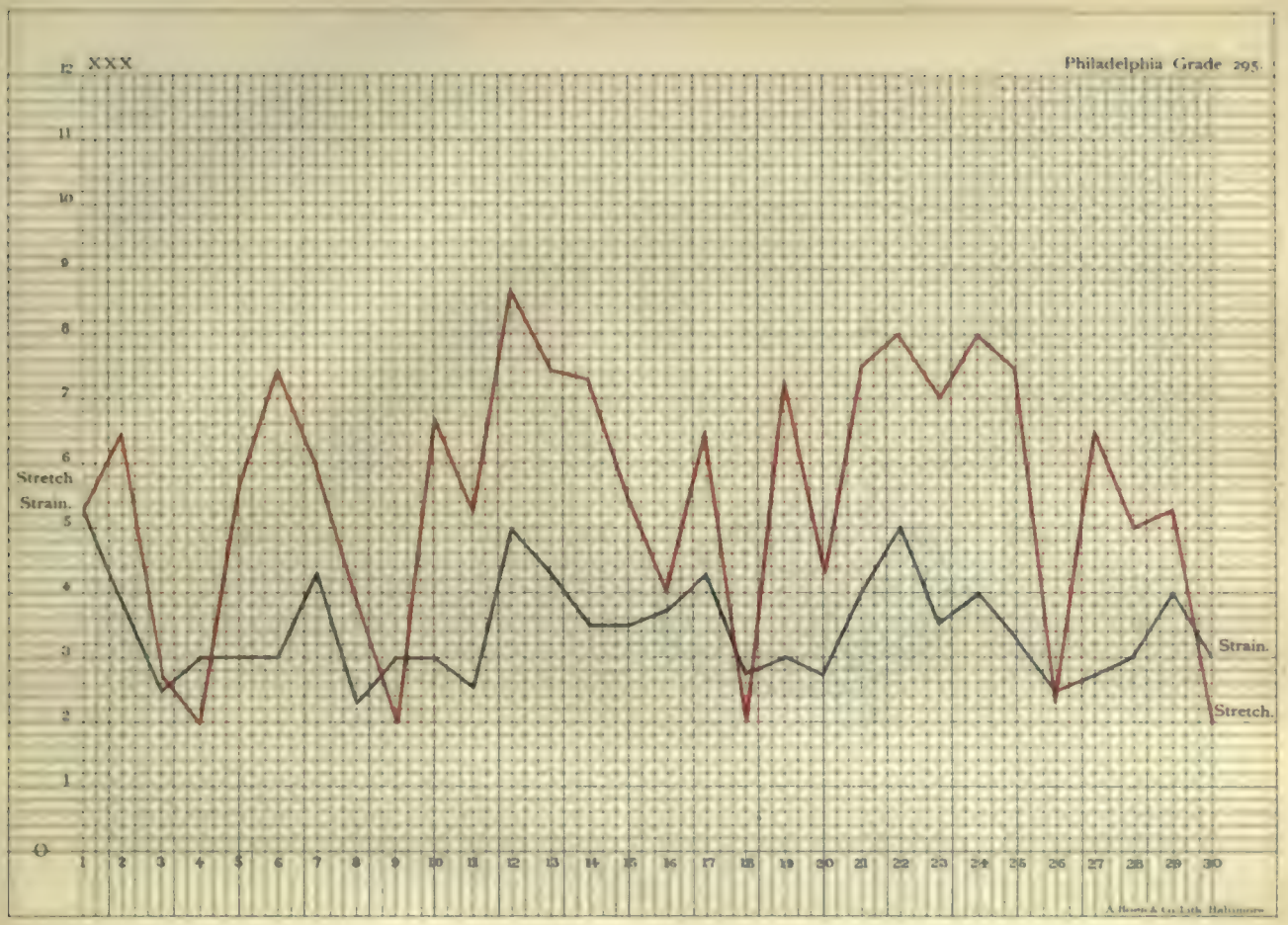
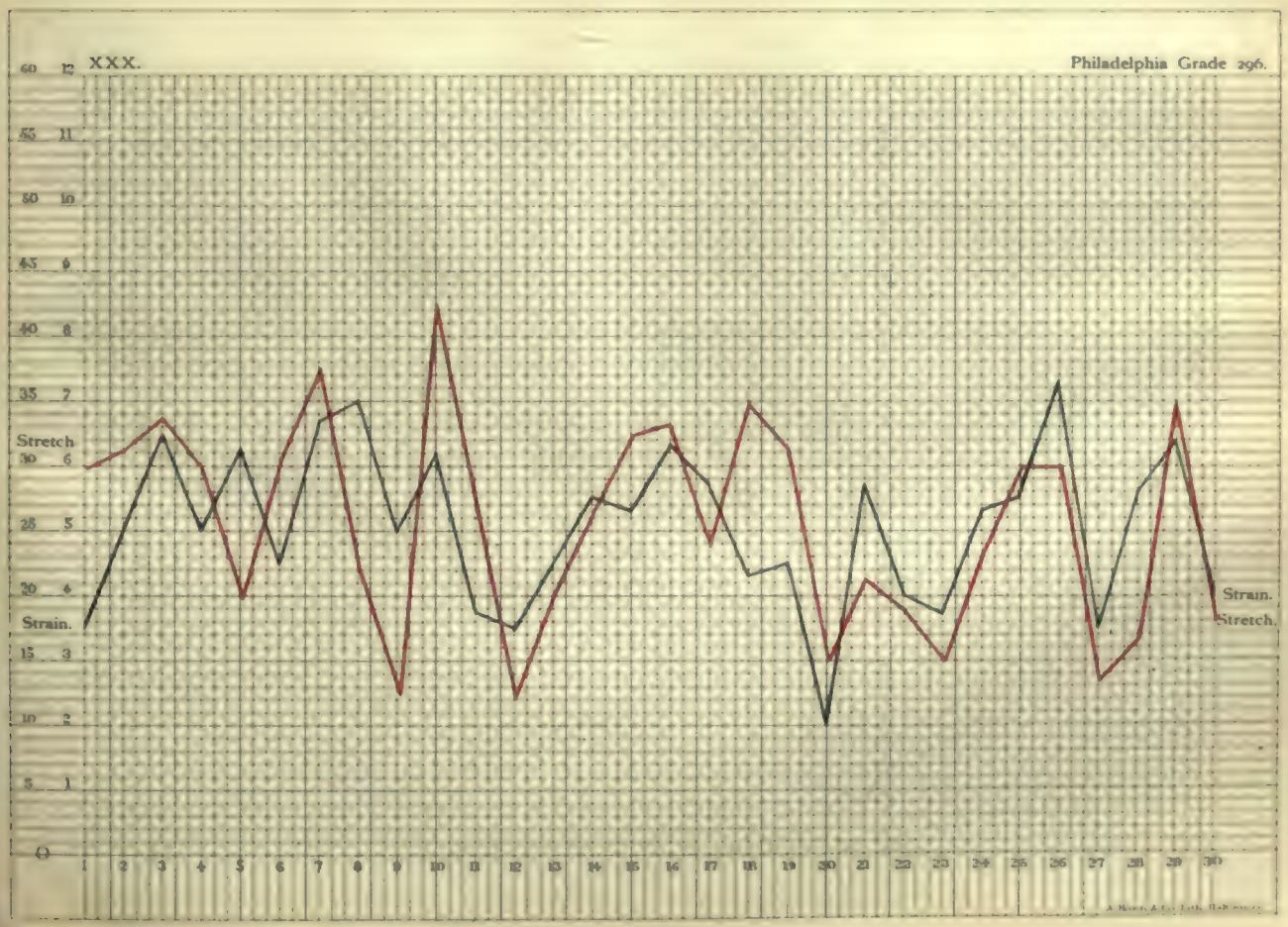

Best Picklock.
Philadelphia Grade 292.
Stretch.
Strain.
Strain.
Stretch.


Best Picklock
Philadelphia Grade 293.
Stretch.
Strain.
Stretch.
Strain.


XXX
Philadelphia Grade 295.
Stretch
Strain.
Strain.
Stretch.


XXX.
Philadelphia Grade 296.
Stretch
Strain.
Strain.
Stretch.

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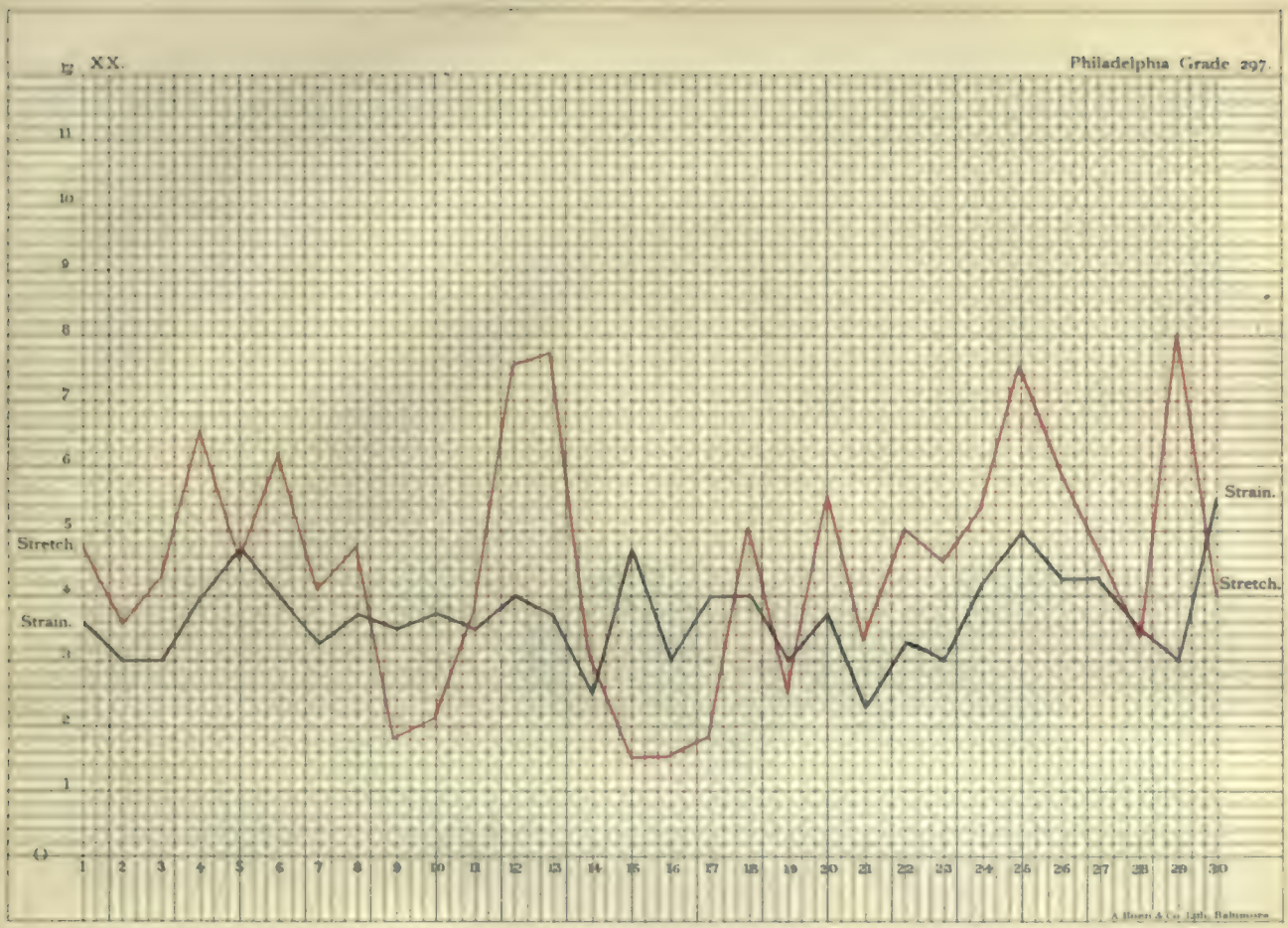
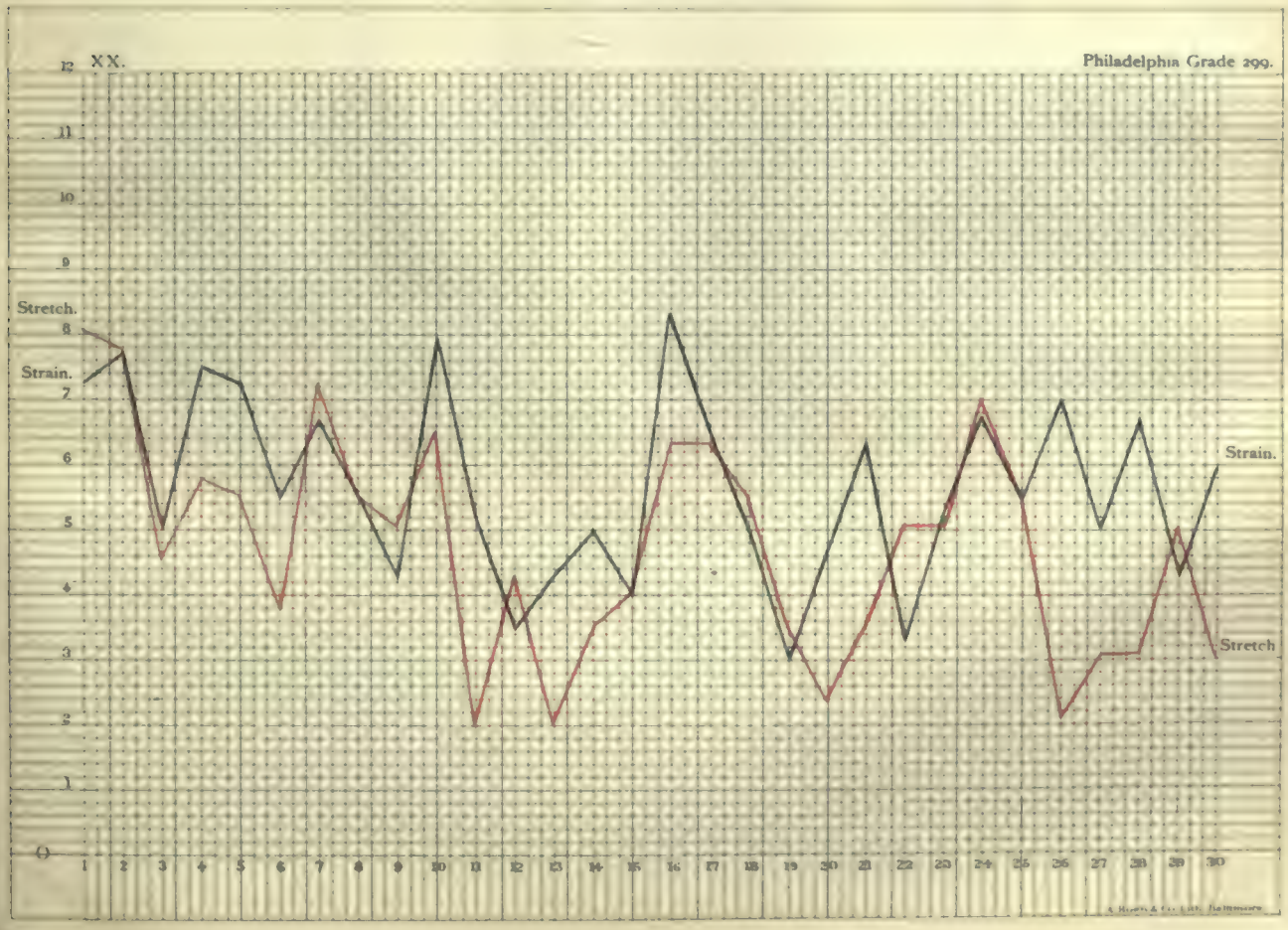

XX.
Philadelphia Grade 297.
Stretch
Strain.
Strain.
Stretch.
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30


XX.
Philadelphia Grade 299.
Stretch.
Strain.
Strain.
Stretch
0
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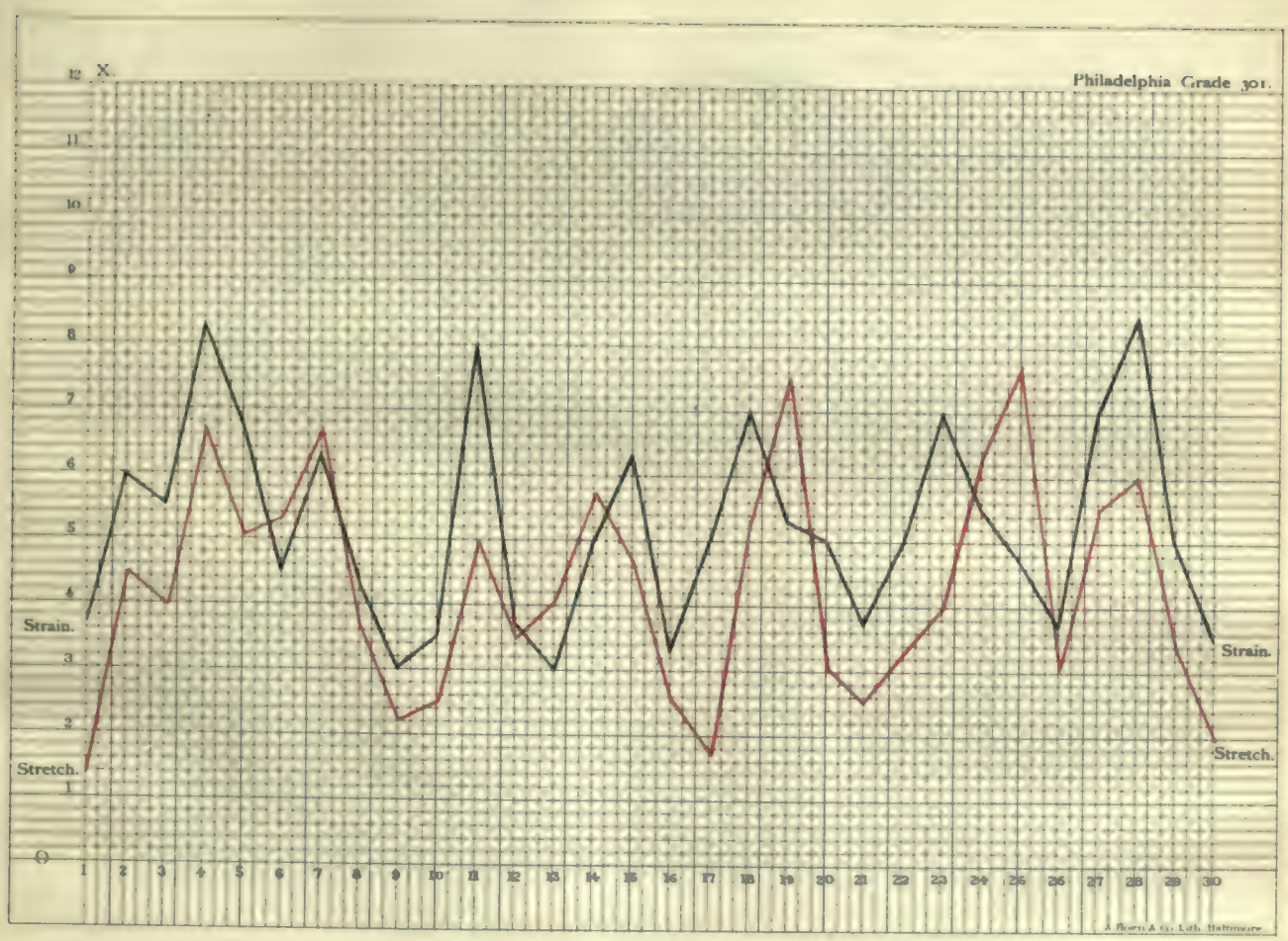
X.
Philadelphia Grade 301.
12
11
10
9
8
7
6
5
4
Strain.
3
2
Stretch.
1
0
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
Strain.
Stretch.

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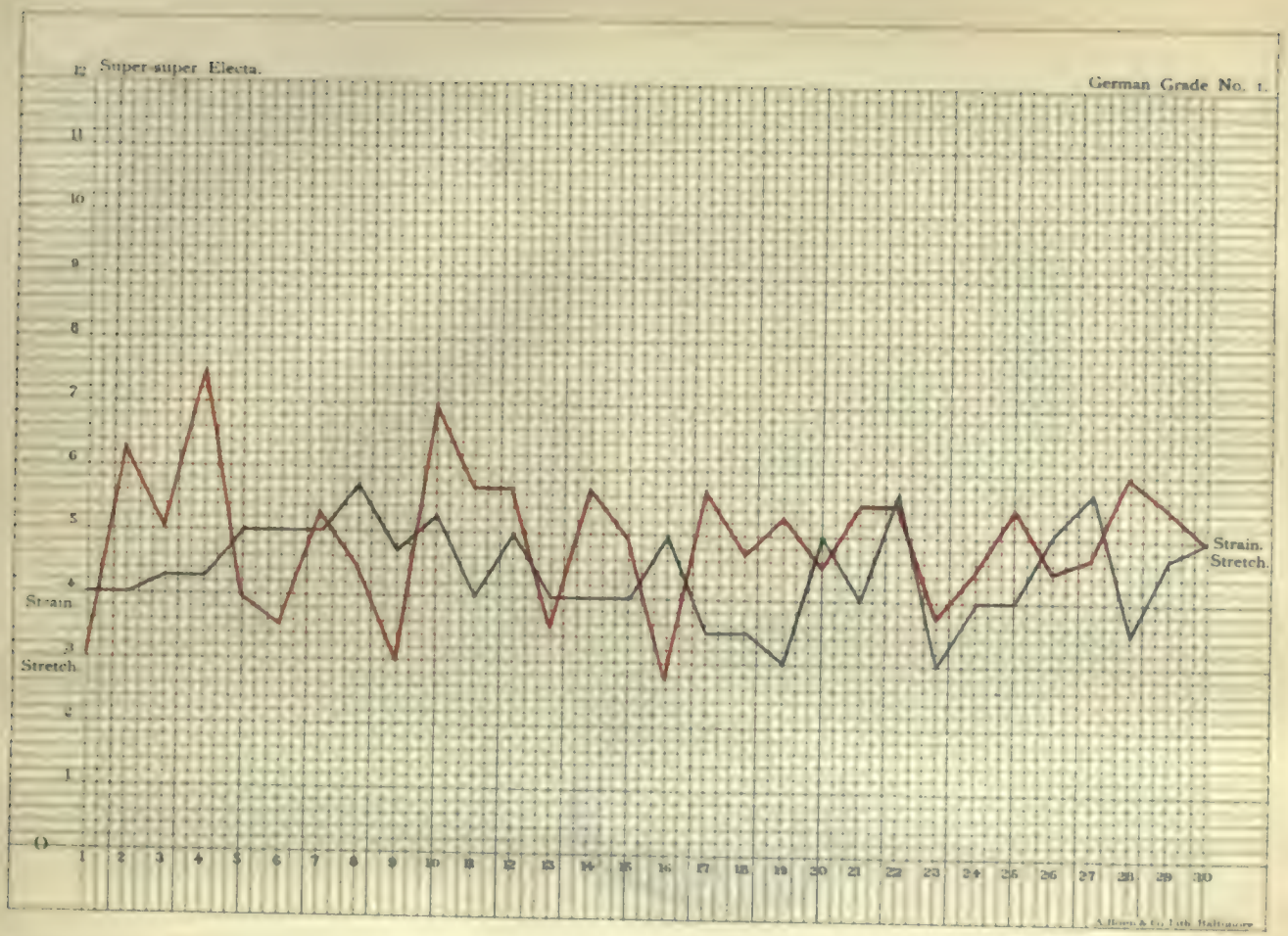
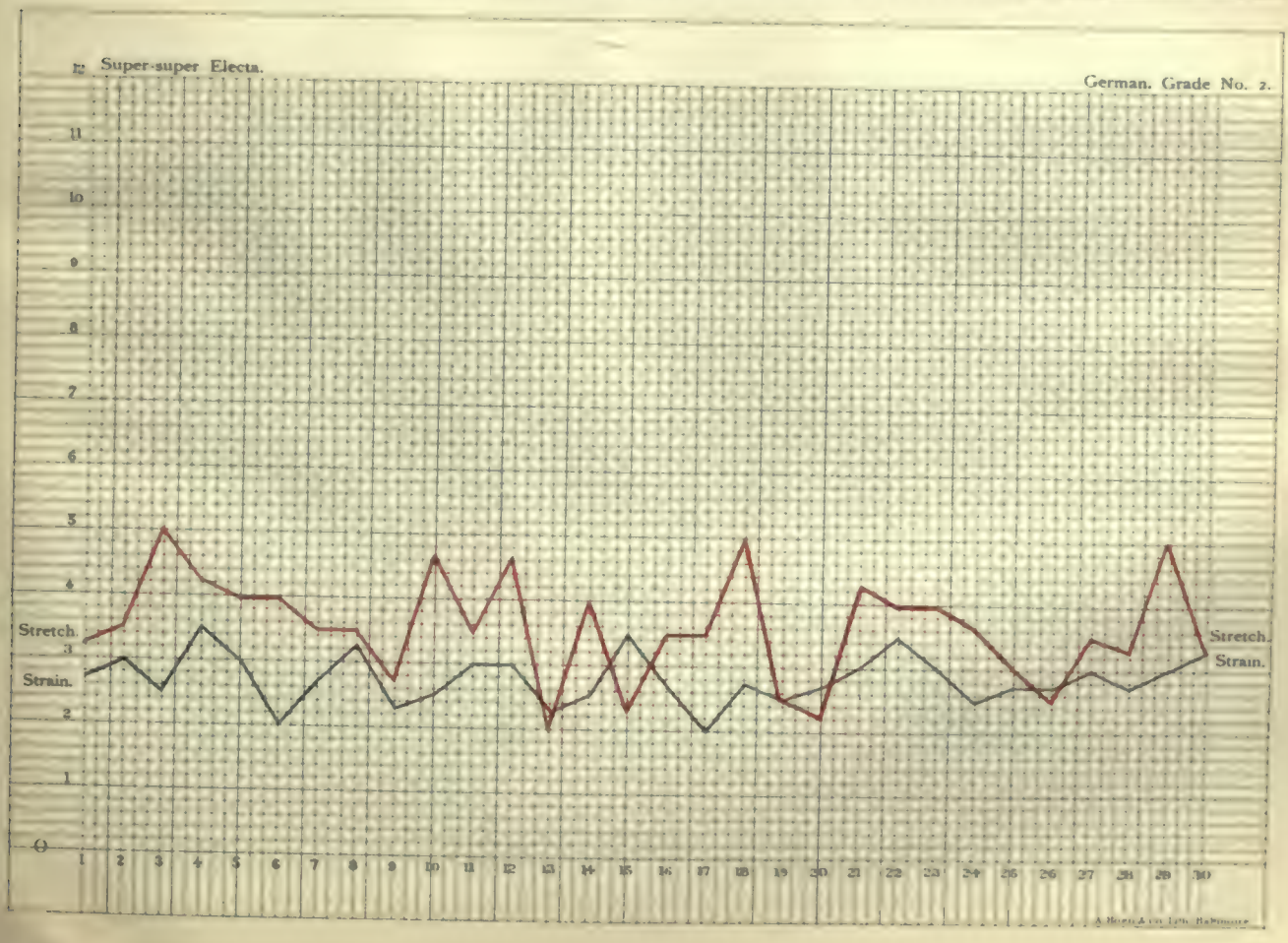

12 Super-super Electa.
German Grade No. 1.
11
10
9
8
7
6
5
4
3
2
1
0
Strain.
Stretch.
Strain.
Stretch.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30


12 Super-super Electa.
German. Grade No. 2.
11
10
9
8
7
6
5
4
3
2
1
0
Stretch.
Strain.
Stretch.
Strain.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

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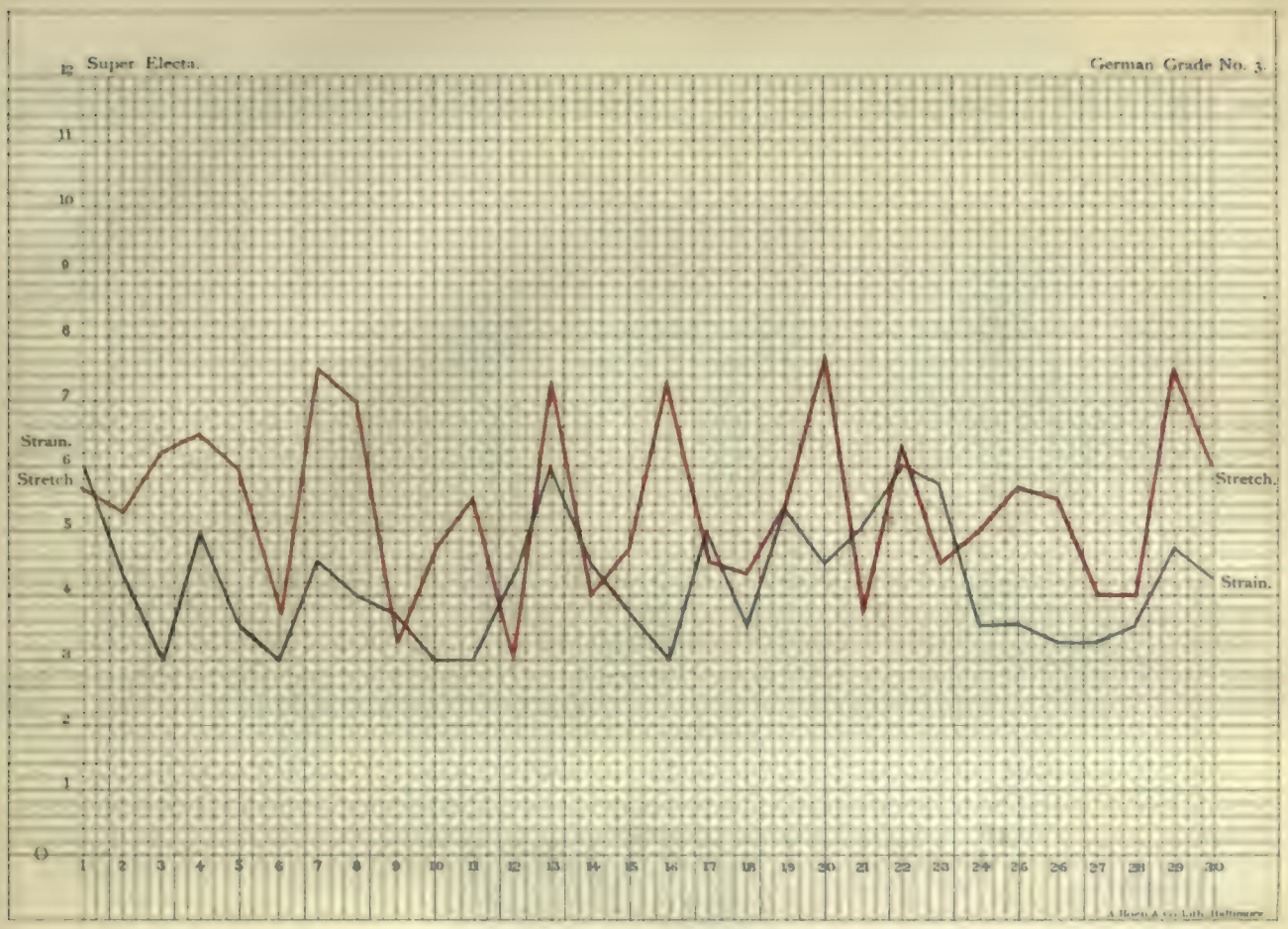
Super Electa.
German Grade No. 3.
Strain.
Stretch.
Stretch.
Strain.
0
1
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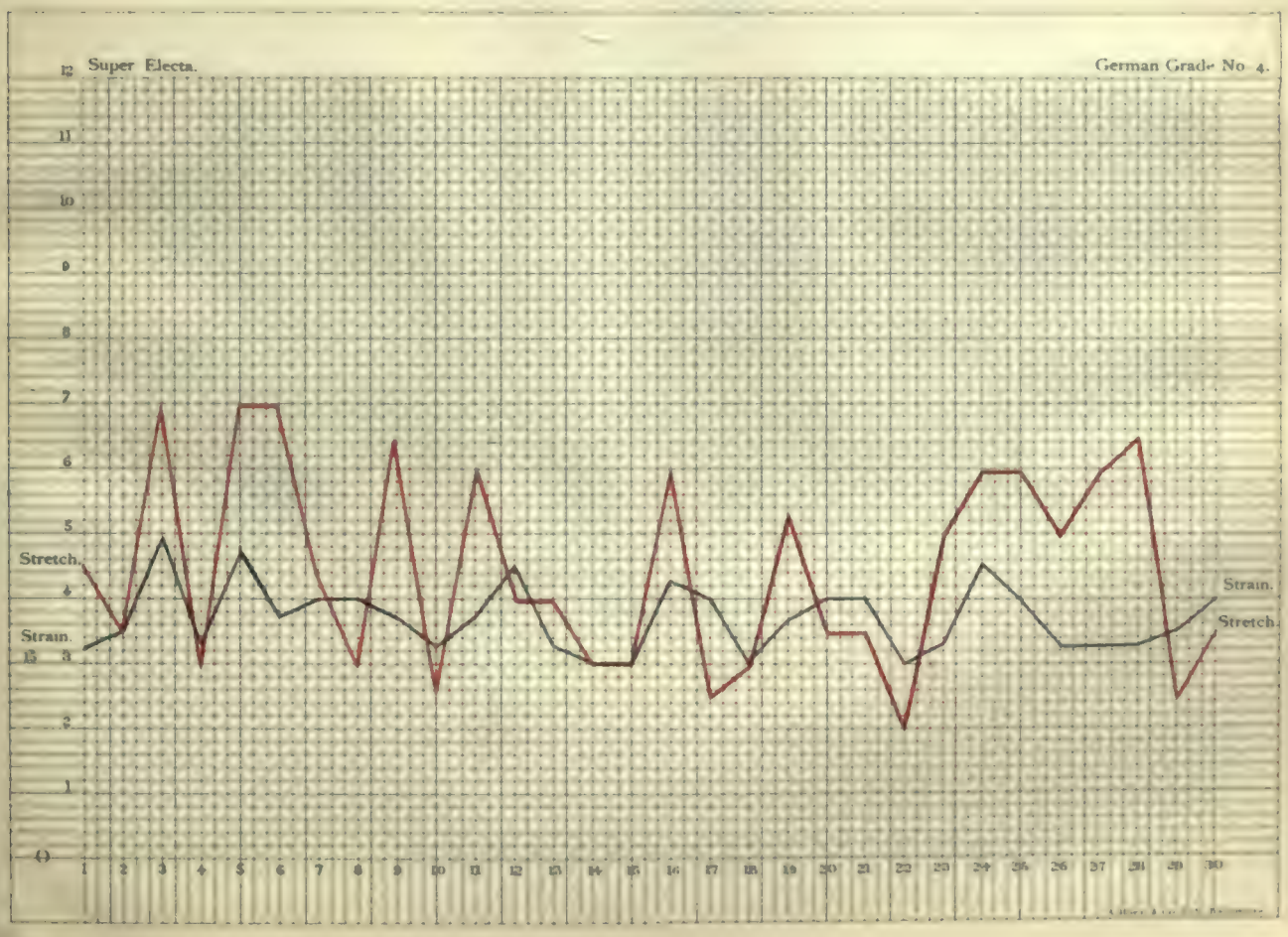
Super Electa.
German Grade No. 4.
Stretch.
Strain.
Strain.
Stretch.
0
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3
4
5
6
7
8
9
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TABLE XV.—*Results of actual tests of strain and stretch.*

COTSWOLD.

Catalogue number of samples..	34. SHOULDER.				34. SIDE.				34. HIP.				35. SHOULDER.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	26.00	6.50	28.50	6.50	42.50	7.50	33.00	2.25	31.00	6.00	41.50	8.25	33.50	5.75	27.50	7.25
	25.00	7.50	25.50	6.25	35.25	8.25	24.00	7.00	27.75	8.25	41.50	8.50	48.00	7.00	32.50	6.50
	36.00	6.00	41.00	7.50	30.25	6.25	37.00	6.50	37.50	8.00	27.50	5.25	36.50	6.25	26.50	7.25
	21.50	6.00	26.00	7.00	30.00	4.50	20.00	3.50	48.00	9.00	47.50	8.00	37.50	7.50	29.00	7.00
	29.50	8.00	28.00	6.50	32.00	7.50	27.75	9.00	27.50	7.00	36.50	7.00	25.75	7.00	25.00	8.00
	32.00	8.00	30.75	8.00	45.00	8.00	47.75	8.00	28.00	6.50	31.50	8.50	33.00	6.00	30.00	7.00
	26.00	6.50	27.50	7.50	39.75	6.50	31.75	4.00	43.50	8.50	39.75	7.00	21.00	6.50	35.50	8.00
	26.00	6.00	28.50	6.00	51.00	8.00	27.00	6.75	33.00	8.25	60.00	10.00	30.25	8.50	46.00	10.00
	28.00	7.50	21.00	5.50	30.25	2.00	46.00	8.00	48.00	8.00	35.00	7.00	28.75	7.00	36.25	8.50
	31.50	7.00	25.50	7.00	33.00	6.00	35.00	7.25	54.00	8.50	44.50	7.25	41.00	7.00	39.00	8.50
	27.50	7.00	24.00	6.00	35.50	7.00	25.75	2.00	37.50	8.25	47.50	7.25	34.00	6.50	26.50	7.75
	18.50	7.00	19.00	8.00	41.00	7.50	50.00	8.00	62.00	8.75	46.00	9.00	32.50	7.00	29.00	6.00
	17.25	2.00	29.00	5.50	37.50	5.75	25.00	1.50	54.75	9.50	35.00	10.00	55.75	9.00	35.00	8.50
	16.50	5.50	25.00	5.50	48.00	8.00	41.50	8.50	42.50	7.00	36.50	7.50	35.75	7.00	34.50	8.00
	24.50	6.00	25.00	6.00	45.00	7.00	28.25	1.25	47.50	9.50	44.00	8.25	37.50	7.00	30.00	7.75
Total	376.75	96.5	382.25	96.75	573.00	99.25	499.75	83.50	622.50	121.00	614.75	118.75	522.75	103.00	479.25	116.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	41.00	632.82	8.00	43.00	50.00	771.73	9.00	45.00	62.00	956.95	10.00	50.00	55.75	860.48	10.00	50.00
Lowest	16.50	254.67	2.00	18.00	20.00	308.69	1.25	6.25	27.50	424.45	5.25	26.25	21.00	324.13	5.75	28.75
Average	25.66	396.05	6.44	32.2	35.75	551.79	6.09	30.45	41.24	636.52	7.99	39.95	33.40	515.52	7.30	36.50
Tests above average	16		17		13		10		16		15		15		11	
Tests below average	14		13		17		19		14		11		15		19	

COTSWOLD.

Catalogue number of samples..	35. SIDE.				35. SIDE.*				35. HIP.				36. SHOULDER.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	49.00	8.50	37.00	9.00	47.00	16.00	31.75	15.00	50.00	8.25	42.00	7.50	18.50	3.50	16.00	4.50
	58.50	9.00	47.00	7.50	36.00	11.00	44.50	17.00	30.50	9.00	35.00	6.00	22.50	5.50	29.00	6.25
	57.00	8.50	45.75	9.50	43.00	6.50	36.00	15.75	50.75	9.00	45.50	7.50	25.50	7.00	17.25	6.50
	35.50	8.00	36.00	7.50	35.00	13.50	25.50	10.00	35.00	7.00	47.50	8.25	28.75	7.75	15.50	7.00
	52.75	8.50	24.00	9.00	46.00	12.00	52.50	14.50	48.00	8.00	37.00	7.25	26.50	7.50	23.50	7.00
	49.75	7.50	33.00	9.00	26.00	3.00	48.75	14.25	51.00	8.50	34.00	3.00	26.00	7.50	29.50	8.50
	50.00	8.00	37.00	5.25	27.00	4.00	22.50	13.25	48.50	7.00	47.00	8.50	30.00	7.50	19.00	3.00
	38.00	8.50	40.50	9.00	35.00	15.00	42.00	17.25	64.00	9.00	46.00	7.50	25.75	6.25	23.50	6.25
	31.00	9.00	50.00	8.50	45.25	14.50	46.00	15.25	46.75	8.50	52.00	8.50	23.00	6.50	30.50	7.00
	38.00	9.00	36.00	8.00	34.00	14.00	48.75	16.00	51.00	7.00	46.50	9.00	27.50	6.50	21.25	4.50
	34.00	3.00	33.00	4.50	52.00	14.75	31.00	16.50	39.00	8.25	41.00	7.00	31.00	7.00	27.50	8.00
	35.00	7.00	27.00	8.00	43.75	16.00	19.00	6.00	36.75	8.50	38.50	9.25	26.00	5.50	24.50	5.50
	39.75	6.00	23.00	6.50	36.00	14.75	30.00	12.75	40.00	5.25	43.00	7.75	21.00	1.50	22.00	6.00
	41.00	8.00	23.00	8.00	31.00	16.50	31.00	12.75	38.00	8.25	41.00	9.00	27.50	6.50	25.50	6.00
	35.75	8.00	25.00	1.50	34.50	15.50	27.00	13.75	43.50	9.25	33.00	7.50	27.50	6.75	19.00	3.50
Total	686.00	116.50	517.25	110.75	571.50	187.00	536.25	210.50	672.75	120.75	691.00	113.5	387.00	92.25	343.50	88.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	61.00	941.51	9.50	47.50	52.50	810.32	17.25	46.12	64.00	987.81	9.50	47.50	31.00	478.47	8.50	42.50
Lowest	23.00	354.99	1.50	7.50	19.00	293.26	3.00	7.50	30.50	470.76	3.00	15.00	14.50	239.24	1.50	7.50
Average	40.10	618.93	7.57	37.85	36.92	569.85	13.23	33.12	45.45	701.5	7.80	39.00	24.35	375.83	6.01	30.05
Tests above average	10		20		12		20		17		17		17		11	
Tests below average	20		10		18		9		13		13		13		12	

* Length of fiber tested, 4 centimeters.

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

COTSWOLD.

Catalogue number of samples..	36. SIDE.				36. HIP.				37. SHOULDER.				37. SIDE.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	29.50	7.50	22.00	4.75	23.50	3.00	31.00	7.00	32.00	7.50	44.00	8.75	20.00	2.25	30.00	7.25
	38.75	9.75	25.50	7.50	33.00	7.50	34.00	8.00	30.00	6.25	23.50	7.00	20.00	1.00	13.00	1.00
	18.00	8.75	29.00	7.25	20.00	5.25	38.00	9.00	22.25	6.00	27.00	8.00	37.50	8.25	34.50	7.25
	37.00	9.00	18.00	3.00	36.00	8.00	31.00	8.00	30.00	7.00	27.00	4.00	35.00	7.00	29.00	7.25
	31.00	7.75	29.75	7.00	32.00	8.00	24.25	5.50	28.00	4.00	32.75	6.50	15.50	1.00	36.50	7.50
	25.00	9.50	34.00	10.75	24.00	6.00	31.00	7.75	15.50	4.00	38.00	8.00	15.00	1.00	32.00	8.00
	20.50	7.50	24.75	5.00	27.50	7.00	19.75	4.75	48.00	8.75	43.50	8.25	23.00	1.25	28.75	7.00
	13.00	5.00	15.00	1.50	31.00	8.25	30.00	7.00	32.75	6.50	40.00	7.25	19.75	1.50	27.00	2.25
	17.00	2.50	25.50	7.00	22.50	2.0	30.00	7.75	42.50	8.00	29.00	6.00	33.75	8.00	28.00	6.50
	12.50	1.50	25.00	9.50	24.50	6.50	35.00	9.00	27.25	6.00	51.00	8.50	24.00	1.50	31.00	7.25
	35.00	8.50	21.75	2.25	34.00	6.50	25.00	4.75	31.00	5.75	22.00	4.50	29.25	3.25	38.00	9.00
	30.75	8.50	17.50	1.50	28.0	7.25	22.50	6.00	36.50	6.50	21.00	5.75	20.00	6.50	22.00	2.50
	15.50	2.00	19.50	2.25	30.50	8.00	28.00	7.00	25.00	6.25	41.00	7.50	24.75	5.75	30.00	6.50
	23.75	4.25	9.50	1.25	26.00	6.50	32.00	7.00	30.00	6.50	25.00	6.00	11.00	1.00	32.00	8.50
	33.25	8.25	31.00	7.75	39.00	9.00	31.00	8.00	33.50	7.50	37.00	7.50	16.00	1.00	25.50	4.50
Total	380.5	99.75	347.75	78.25	433.5	108.75	442.5	116.50	464.25	96.5	501.75	103.5	353.50	50.25	437.25	92.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	38.75	598.09	10.75	53.75	39.00	601.95	9.00	45.00	51.00	787.16	8.75	43.75	38.00	586.52	9.00	45.00
Lowest	9.50	146.63	1.25	6.25	19.75	304.83	2.00	10.00	15.50	239.24	4.00	20.00	11.00	169.78	1.00	5.00
Average	24.27	374.60	5.03	29.65	29.19	450.69	7.50	37.5	32.20	496.99	6.06	31.30	26.36	406.86	4.75	23.75
Tests above average	16		17		17		12		13		14		17		16	
Tests below average	14		13		13		17		17		16		13		14	

COTSWOLD.

Catalogue number of samples..	37. HIP.				38. SHOULDER.				38. SIDE.				38. HIP.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	36.50	8.00	31.50	3.50	23.50	5.50	38.50	8.00	42.00	9.75	32.00	4.00	37.50	8.00	53.00	9.00
	36.75	8.00	32.5	9.50	30.00	8.00	25.00	5.50	44.75	9.00	27.00	7.00	43.00	9.00	42.00	9.00
	33.25	7.50	27.00	8.00	16.00	5.00	17.00	5.00	44.25	8.50	40.00	8.50	41.00	8.00	60.00	10.00
	33.00	8.75	32.00	7.50	30.00	8.50	29.50	8.50	43.00	9.00	35.50	8.25	54.50	8.50	56.50	9.50
	36.00	9.00	40.00	9.00	33.50	6.50	29.50	7.00	31.50	10.00	38.00	6.50	41.00	8.50	38.00	3.00
	40.00	8.25	39.00	8.75	37.00	8.0	27.00	5.75	20.00	3.50	31.00	8.00	52.00	9.50	57.50	9.00
	28.50	6.50	30.00	7.00	20.00	5.75	35.00	6.50	40.00	8.00	20.00	7.50	44.00	3.50	46.00	2.00
	23.00	0.50	25.00	1.00	20.50	6.50	30.00	6.50	31.00	4.00	47.25	9.00	56.00	9.25	55.00	9.00
	20.50	6.50	20.00	3.00	23.00	6.50	40.50	7.50	52.50	7.50	26.00	5.50	41.50	8.00	43.00	8.75
	33.75	7.00	32.00	7.00	42.75	7.00	20.00	5.00	46.00	8.25	24.00	6.50	41.50	8.50	47.50	8.75
	33.00	8.00	26.00	2.50	37.25	8.50	25.00	7.00	44.00	8.50	41.00	8.75	46.00	7.75	52.50	7.00
	36.00	7.25	23.00	7.00	39.00	8.25	26.00	7.00	45.00	9.00	46.00	9.50	67.50	10.00	40.00	8.50
	33.00	7.00	30.00	9.00	47.00	8.75	32.00	6.50	42.00	9.00	39.25	8.00	50.00	9.00	20.00	7.00
	26.50	8.00	18.00	4.00	35.75	6.25	27.50	7.50	32.75	9.00	23.50	6.25	50.00	8.50	45.00	9.50
	25.00	1.50	24.00	1.00	26.00	6.00	25.00	7.00	25.00	7.00	26.75	6.50	47.50	9.00	52.00	9.00
Total	480.75	101.75	425.00	83.25	471.25	105.00	427.50	100.25	584.75	119.00	503.25	109.75	715.00	125.00	708.00	126.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	40.00	617.38	9.50	47.50	47.00	725.43	8.75	43.75	52.50	810.32	10.00	50.00	60.00	732.06	10.00	50.00
Lowest	18.00	277.82	0.50	2.50	16.00	246.95	5.00	25.0	20.00	308.69	4.00	20.00	20.00	926.08	3.00	15.00
Average	30.35	468.44	6.33	31.43	29.98	462.42	6.84	34.20	36.26	559.66	7.62	38.10	47.43	308.69	8.36	41.80
Tests above average	16		22		15		15		16		18		10		22	
Tests below average	14		8		15		15		14		12		14		0	

TABLE XV.—*Result of actual tests of strain and stretch*—Continued.

Catalogue number of samples..	COTSWOLD.															
	39. SHOULDER.				39. SIDE.*				39. SIDE.				39. HIP.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grams.	mm.	mm.	grams.	grams.	mm.	mm.	grams.	grams.	mm.	mm.	grams.	grams.	mm.	mm.
Actual measurement in grams and millimeters.	38.25	6.50	31.50	6.75	43.00	7.00	47.00	8.50	36.00	13.50	39.75	14.75	[illegible]	7.75	48.38	9.00
	46.50	[illegible]	32.00	7.25	29.50	3.25	46.00	8.25	34.00	15.50	38.00	11.50	31.00	8.00	39.00	[illegible]
	40.50	7.25	45.25	[illegible]	40.00	8.25	41.00	8.25	41.25	15.25	22.00	13.50	26.50	6.75	36.00	9.00
	41.00	[illegible]	38.50	8.50	41.00	8.25	35.00	6.25	39.75	15.00	28.00	16.00	37.00	8.00	27.50	[illegible]
	44.00	7.50	36.50	6.50	31.00	7.50	44.00	[illegible]	38.50	14.50	17.00	7.00	[illegible]	9.00	32.00	[illegible]
	19.00	6.50	26.00	7.00	42.00	9.50	41.75	9.00	36.75	16.00	44.00	14.75	28.00	[illegible]	31.75	8.50
	[illegible]	[illegible]	39.00	7.50	30.25	6.00	45.75	8.50	34.00	12.00	38.00	15.00	23.50	8.00	24.50	[illegible]
	44.00	7.50	30.50	6.25	[illegible]	9.00	57.00	9.00	43.25	14.50	40.00	14.75	31.50	[illegible]	35.00	7.50
	30.00	6.00	32.50	6.75	44.00	8.00	33.00	6.50	38.00	14.25	26.00	15.25	38.00	8.75	[illegible]	7.00
	47.75	[illegible]	37.00	8.50	46.00	[illegible]	37.00	[illegible]	36.00	15.25	35.50	[illegible]	30.00	8.00	38.00	8.00
	30.25	6.00	16.75	5.25	35.50	7.00	[illegible]	8.25	30.00	[illegible]	[illegible]	15.25	33.00	[illegible]	28.00	6.00
	30.00	6.25	32.25	6.25	29.75	[illegible]	25.50	9.25	42.75	13.50	42.00	14.25	32.50	[illegible]	[illegible]	9.00
	[illegible]	[illegible]	36.00	6.75	40.00	9.25	31.00	5.00	35.00	12.00	36.75	14.75	38.00	[illegible]	[illegible]	9.00
	16.00	6.25	[illegible]	7.00	37.50	7.75	32.50	9.00	35.00	14.75	30.00	16.50	31.00	7.75	40.00	9.00
	32.50	5.75	30.00	6.50	40.00	7.50	[illegible]	7.50	38.75	15.00	39.00	15.00	34.00	9.00	36.50	8.75
Total	534.50	102.25	495.25	102.75	576.25	[illegible]	612.25	119.75	559.00	216.00	523.00	212.25	479.50	122.50	502.25	123.75

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	47.75	737.00	8.50	42.50	[illegible]	[illegible]	9.50	[illegible]	[illegible]	[illegible]	16.50	[illegible]	[illegible]	[illegible]	9.00	[illegible]
Lowest	16.00	246.95	5.25	[illegible]	25.50	393.58	3.25	16.25	[illegible]	262.39	7.00	17.5	23.50	625.10	6.00	30.00
Average	34.32	529.72	6.83	34.16	39.61	[illegible]	7.83	39.15	36.06	556.57	14.27	35.67	32.72	302.71	8.20	[illegible]
Tests above average	14		12		[illegible]		19		17		20		15		14	
Tests below average	16		18		12		11		13		10		15		16	

Catalogue number of samples..	COTSWOLD.															
	170.				171.				172.				173.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grams.	mm.	mm.	grams.	mm.	grams.	mm.	grams.	grams.	mm.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	[illegible]	17.50	27.00	9.50	12.00	[illegible]	26.25	[illegible]	30.00	[illegible]	19.00	65.0	41.00	8.50	31.75	9.50
	[illegible]	9.00	27.00	12.00	22.50	7.00	[illegible]	1.50	10.50	1.00	14.25	[illegible]	24.25	2.00	13.00	4.00
	28.00	7.00	33.50	9.00	17.50	7.75	[illegible]	[illegible]	20.00	7.25	9.00	[illegible]	33.00	[illegible]	27.00	9.25
	[illegible]	9.00	[illegible]	10.50	12.00	[illegible]	22.50	8.25	13.00	6.25	25.50	7.75	31.00	9.00	27.00	7.00
	32.50	9.25	37.50	18.75	14.50	7.00	15.00	7.75	13.00	[illegible]	18.00	7.00	22.50	3.50	33.00	7.75
	22.50	[illegible]	37.00	8.50	16.75	7.25	26.50	8.25	21.75	7.00	16.50	7.75	24.75	5.00	36.50	7.75
	38.50	[illegible]	12.50	[illegible]	20.50	7.00	[illegible]	[illegible]	16.75	7.50	14.25	[illegible]	37.75	8.00	17.00	5.25
	[illegible]	7.75	32.50	9.75	28.75	[illegible]	[illegible]	[illegible]	[illegible]	7.25	11.50	5.00	15.00	1.25	19.00	1.75
	20.00	11.25	16.50	7.25	25.00	7.75	23.00	9.00	20.50	[illegible]	20.25	[illegible]	14.50	[illegible]	26.00	10.00
	[illegible]	16.00	36.00	[illegible]	29.50	7.25	[illegible]	4.00	20.75	6.75	19.50	8.00	27.75	7.75	39.25	9.00
	[illegible]	24.00	40.50	23.00	25.50	7.25	30.50	[illegible]	17.00	5.25	13.50	7.00	40.25	7.75	39.00	[illegible]
	26.00	7.75	[illegible]	[illegible]	20.00	7.00	17.25	[illegible]	11.00	5.00	23.50	8.25	25.00	6.50	32.50	6.75
	32.00	10.75	34.50	17.50	23.25	9.75	10.50	7.75	14.75	2.75	17.00	[illegible]	[illegible]	5.25	32.25	6.50
	32.50	8.50	25.50	9.25	18.25	[illegible]	21.75	7.75	12.25	[illegible]	13.00	7.00	34.50	[illegible]	25.50	7.75
	38.50	15.00	23.50	2.50	23.75	7.50	[illegible]	10.00	20.00	[illegible]	19.75	5.75	13.50	2.75	[illegible]	2.00
Total	476.25	179.25	448.50	154.00	309.75	108.25	301.75	112.75	260.25	90.75	254.50	100.75	410.75	88.25	424.75	102.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	44.00	679.12	24.00	120.00	30.50	470.76	10.00	50.00	30.00	463.04	10.75	53.75	44.00	679.12	[illegible]	[illegible]
Lowest	12.50	192.93	2.50	12.50	10.50	162.06	[illegible]	5.00	9.00	138.91	1.00	[illegible]	13.00	[illegible]	125.00	0.25
Average	30.83	475.85	11.11	55.55	20.38	314.56	7.40	37.00	17.16	264.86	6.38	31.90	27.85	429.85	6.36	31.80
Tests above average	18		9		15		20		14		17		14		19	
Tests below average	12		21		15		10		16		13		16		11	

* Length of fiber tested, 4 centimeters.

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

COTSWOLD.

Catalogue number of samples..	174.				175.				176.				177.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	36.00	20.50	16.00	12.00	43.50	8.50	24.00	2.00	37.00	19.00	28.00	7.25	38.25	11.75	25.75	8.75
	26.50	16.25	27.50	8.00	43.00	13.25	45.50	18.25	47.50	26.00	12.00	1.25	29.00	7.25	31.00	9.00
	30.50	18.00	34.50	17.50	18.75	8.00	48.50	24.25	47.00	25.00	39.50	20.75	39.75	17.25	20.50	9.25
	27.00	14.00	26.50	8.00	31.00	7.75	26.00	6.00	37.75	15.50	36.00	10.50	33.50	19.00	32.50	7.25
	12.50	2.50	31.75	11.00	48.75	10.25	30.75	8.00	26.00	6.25	23.75	6.25	38.50	20.50	33.75	8.25
	12.50	8.00	29.75	8.50	21.50	9.75	31.75	9.00	19.50	7.25	35.50	19.75	30.50	7.00	20.75	8.75
	35.50	10.00	29.25	9.50	47.50	10.00	35.50	19.00	40.50	17.25	26.50	8.00	40.00	21.75	21.50	2.25
	13.50	5.50	27.50	11.50	31.75	7.00	46.75	25.00	29.50	9.25	37.00	10.00	25.25	10.00	39.50	7.00
	19.50	2.00	23.75	7.50	51.50	10.75	41.50	22.50	39.50	15.25	33.00	8.25	15.50	8.75	35.00	9.75
	13.50	5.00	27.75	7.50	16.00	10.00	47.50	25.00	21.50	7.50	28.50	8.25	38.25	7.00	34.50	19.25
	22.50	3.00	36.00	9.00	30.00	18.50	31.75	8.75	35.00	8.00	39.00	9.00	33.50	18.75	25.25	10.00
	21.50	7.00	16.00	10.50	22.00	9.00	38.25	11.00	27.00	10.25	37.00	9.25	24.00	9.50	44.75	8.75
	22.50	4.50	16.75	6.50	38.25	10.25	35.00	10.00	37.50	20.25	46.00	20.00	19.75	8.75	35.00	10.75
	40.50	10.00	21.75	13.00	40.00	12.50	39.50	15.00	30.50	16.00	44.75	11.25	27.50	2.50	42.75	8.00
	17.50	8.00	39.50	13.00	31.00	7.75	29.50	10.00	29.00	16.25	16.00	2.00	33.75	7.50	25.50	9.75
Total	351.50	134.25	404.25	153.00	514.50	153.25	551.75	213.75	504.75	219.00	482.50	151.75	467.00	177.25	468.00	136.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	40.50	625.10	20.50	102.50	48.50	748.58	25.00	125.00	47.50	733.14	26.00	130.00	44.75	690.70	21.75	108.7
Lowest	12.50	192.93	2.00	10.00	16.00	246.95	2.00	10.00	12.00	185.22	1.25	6.25	15.50	239.24	2.25	11.2
Average	25.19	388.80	9.58	47.90	35.54	548.55	12.25	61.25	32.91	507.95	12.36	61.80	31.17	740.86	10.47	52.3
Tests above average	16		13		14		10		17		18		16		8	
Tests below average	14		17		16		20		13		18		14		22	

COTSWOLD.

Catalogue number of samples..	178.				179.				180.				181.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	34.00	9.00	16.50	1.75	28.25	7.50	31.00	7.25	28.00	5.00	31.00	9.00	27.00	8.75	34.50	8.00
	37.50	8.75	20.00	6.00	24.25	7.00	16.25	2.75	31.50	8.00	27.00	6.75	29.75	7.50	27.00	1.50
	27.75	8.75	39.00	8.25	38.50	8.25	20.00	2.75	26.75	8.00	38.25	7.75	32.00	8.25	37.00	8.50
	27.50	7.00	18.50	8.75	26.00	2.50	21.50	6.75	33.25	7.75	26.25	6.25	41.00	8.50	39.50	7.00
	27.25	4.00	26.25	4.00	35.00	8.00	23.25	3.75	22.25	3.50	21.00	6.75	33.75	8.00	49.00	9.50
	26.25	8.25	27.50	8.50	18.00	6.25	25.00	7.75	24.50	7.25	44.00	8.25	24.50	3.50	38.00	6.75
	39.00	7.75	20.50	8.50	24.50	6.00	26.00	7.50	25.50	7.25	29.25	6.25	49.50	9.00	32.75	7.25
	20.25	2.00	30.00	9.25	33.00	7.25	23.75	3.75	27.75	7.75	41.00	9.00	33.00	6.25	45.00	10.00
	24.00	6.75	35.00	7.75	28.75	7.75	27.00	7.00	31.00	8.00	41.25	8.75	40.50	7.50	42.00	9.00
	32.00	2.50	20.50	2.25	33.00	8.25	32.00	8.00	29.75	7.25	29.00	7.25	33.75	10.00	42.75	8.50
	12.00	1.50	45.50	10.50	32.00	7.00	27.00	8.25	31.75	7.25	36.00	8.25	35.00	9.50	24.50	2.50
	22.00	7.75	30.25	7.25	29.50	7.75	32.00	8.75	38.00	8.75	26.75	6.25	46.75	8.25	42.00	9.00
	29.00	7.00	22.00	6.50	18.50	5.50	21.00	8.25	31.50	8.00	36.00	8.75	31.00	1.25	11.00	2.00
	36.75	8.25	22.50	6.75	37.00	7.75	13.75	3.00	40.00	8.75	34.00	8.00	22.50	2.00	27.50	9.25
	18.00	9.00	18.50	5.00	25.00	7.25	24.00	6.50	20.50	1.25	31.25	6.75	38.75	8.25	40.00	7.75
Total	413.25	98.25	392.50	101.00	431.25	104.00	363.50	92.00	442.00	103.75	492.00	114.00	518.75	106.50	532.50	106.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	45.50	702.27	10.50	52.50	38.50	594.23	8.75	43.75	44.00	679.12	9.00	43.33	49.50	764.01	10.00	56.00
Lowest	12.00	185.22	1.50	7.50	13.75	212.23	2.50	12.50	21.00	324.13	1.25	6.25	11.00	169.78	1.25	6.25
Average	26.86	414.57	6.64	33.20	26.49	408.86	6.53	32.65	31.13	480.48	7.26	36.30	35.04	540.83	7.10	35.50
Tests above average	15		20		14		20		14		16		15		22	
Tests below average	15		10		16		10		16		14		15		8	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

COTSWOLD.

Catalogue number of samples..	182.				183.				184.				185.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	12.00	1.00	39.00	8.25	25.00	0.25	36.75	9.00	28.50	6.25	36.00	7.00	26.75	0.00	25.75	4.75
	20.50	5.50	31.50	8.25	20.75	1.75	32.00	7.75	20.50	1.25	30.25	7.25	33.00	8.00	20.25	1.50
	38.50	8.25	36.25	7.00	24.00	7.00	26.75	8.50	36.00	7.75	18.75	1.50	27.75	7.00	24.00	6.25
	42.00	8.00	22.00	7.50	32.25	7.50	22.75	6.50	33.75	7.75	33.75	5.75	15.00	1.00	30.75	0.00
	40.50	7.50	28.25	8.50	34.75	7.75	34.75	8.50	21.00	1.00	30.00	5.25	24.50	3.00	20.00	6.50
	37.75	7.75	27.25	7.25	20.75	6.50	15.25	7.75	35.00	6.75	37.00	6.50	27.00	7.00	34.00	7.25
	32.25	7.25	29.00	5.00	20.25	7.75	18.50	8.00	27.75	7.00	36.75	6.75	25.75	5.25	31.00	1.25
	26.00	6.25	36.50	7.75	21.75	8.25	20.50	7.00	33.75	8.25	43.75	7.25	23.75	6.00	22.75	3.75
	33.00	8.00	30.00	8.75	28.75	9.75	26.25	7.75	27.00	3.00	25.50	5.25	34.00	0.25	19.25	1.00
	19.00	7.00	25.00	4.00	22.00	8.25	12.25	6.75	38.00	6.50	27.00	5.50	28.00	6.50	27.00	6.25
	30.75	8.00	21.00	6.75	21.25	8.25	21.00	8.25	31.00	4.00	36.75	7.25	23.25	1.00	20.00	1.50
	41.00	8.00	13.50	2.25	23.00	3.75	27.00	7.25	24.00	1.75	34.25	6.00	19.00	2.00	22.00	4.00
	20.50	1.25	29.00	7.25	18.25	1.25	15.00	7.75	22.25	6.72	25.00	2.50	28.25	6.25	27.00	6.75
	30.00	7.25	24.00	1.25	30.75	7.50	29.75	7.25	33.50	6.25	36.00	6.75	26.00	4.00	23.72	2.50
	34.00	8.00	22.00	8.50	10.50	1.50	30.00	7.50	35.00	1.75	33.75	7.00	24.00	1.50	21.25	3.00
Total	449.75	99.00	409.25	98.25	354.00	93.00	368.50	116.00	447.00	75.50	490.50	87.50	383.00	70.75	360.75	62.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	42.00	648.25	8.75	43.75	36.75	567.22	9.75	48.75	43.00	66.60	8.25	41.25	34.00	524.78	8.00	40.00
Lowest	12.00	185.22	1.00	5.00	10.50	162.06	1.25	6.25	18.75	289.40	1.25	6.25	15.00	321.52	1.00	5.00
Average	28.63	441.89	6.58	32.90	24.08	371.66	6.97	34.85	31.25	482.33	5.43	27.15	24.79	382.62	4.43	22.15
Tests above average	17		22		13		23		17		20		15		16	
Tests below average	13		8		17		7		13		10		15		14	

COTSWOLD.

Catalogue number of samples..	186.				187.				188.				189.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	30.75	7.00	36.75	7.25	28.75	3.00	25.00	7.50	19.75	6.75	5.00	0.50	25.00	2.00	38.75	7.75
	27.00	3.00	25.25	2.00	22.75	5.00	35.00	8.00	30.75	7.50	14.25	1.00	20.25	4.00	27.25	6.75
	32.00	6.75	41.75	8.25	19.50	1.25	26.50	2.00	8.00	0.50	6.75	0.25	26.50	2.00	25.25	3.00
	41.00	6.25	23.22	1.00	30.75	8.25	35.00	7.75	19.00	4.00	25.50	5.75	31.25	7.50	35.00	7.25
	17.75	1.00	25.50	3.00	34.50	8.00	27.00	1.25	11.00	0.75	19.00	3.00	33.00	7.00	36.25	7.75
	27.72	1.25	31.25	7.00	28.75	3.25	39.50	8.00	16.50	1.75	21.25	5.25	39.00	7.75	33.00	7.50
	38.00	6.00	18.00	7.25	35.00	7.75	30.00	6.00	14.25	0.75	19.00	3.00	42.00	7.00	41.00	7.75
	25.50	7.50	32.00	6.25	16.50	1.00	21.25	1.00	7.00	0.25	23.00	4.25	41.50	7.50	18.00	1.00
	33.75	3.00	30.50	5.25	27.75	8.50	16.25	3.75	10.00	0.50	15.00	1.00	39.75	7.25	29.00	5.75
	28.00	2.00	42.25	8.25	31.75	8.00	40.75	8.75	17.25	2.00	6.50	0.75	31.00	7.25	36.00	6.50
	23.75	1.00	20.00	7.50	21.00	1.25	27.00	3.25	10.00	0.75	17.75	0.75	32.00	8.50	24.00	1.25
	28.00	5.75	19.50	6.00	30.00	5.00	30.75	8.00	16.75	2.00	9.00	1.00	37.00	7.50	43.20	8.00
	35.00	6.00	32.50	7.75	24.25	8.00	22.50	1.00	9.00	0.25	8.25	0.50	33.00	6.00	13.75	6.00
	18.75	5.50	21.00	3.00	20.00	3.00	25.25	7.00	16.25	3.25	16.50	1.00	33.25	7.00	30.75	5.50
	20.00	2.00	23.00	7.75	25.75	6.75	33.75	8.00	12.75	0.75	12.25	1.00	37.00	7.50	22.00	7.25
Total	111.88	64.00	422.50	92.50	397.00	75.00	435.50	81.25	218.25	31.75	219.00	29.00	507.50	93.75	453.25	89.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	42.25	652.11	8.25	41.25	40.75	628.96	8.75	43.75	30.75	476.61	7.50	37.50	43.25	667.55	8.00	40.00
Lowest	17.75	273.96	1.00	5.00	16.25	250.81	1.00	5.00	5.00	77.17	0.25	1.25	13.75	212.23	1.00	5.00
Average	27.78	428.77	5.22	26.10	27.75	428.31	5.21	26.05	14.58	225.04	2.03	16.15	32.03	494.37	6.09	30.45
Tests above average	14		19		14		15		16		9		16		20	
Tests below average	16		10		13		15		14		21		14		10	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

	COTSWOLD.				LEICESTER.				LINCOLN.							
Catalogue number of samples..	190.				113.				59. SHOULDER.				59. SIDE.			
Length of fiber tested.....	——				——				——				——			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	21.00	1.25	28.00	8.25	19.00	6.00	20.00	4.00	24.56	6.75	21.00	6.00	18.50	6.25	26.75	6.50
	27.50	7.75	39.50	8.00	22.50	6.00	24.50	6.00	36.00	7.50	30.00	8.00	30.25	8.00	36.00	9.00
	24.75	7.75	18.50	7.00	24.00	6.00	22.00	6.00	29.00	8.00	23.00	7.25	15.25	7.50	31.00	8.25
	24.00	7.00	40.00	7.00	25.25	7.00	30.00	7.25	23.25	6.00	29.50	7.50	21.00	7.75	25.00	7.25
	36.00	6.75	26.25	2.00	24.75	4.00	15.50	5.00	24.00	5.00	26.50	7.25	31.00	7.25	31.00	7.50
	13.75	1.50	30.50	3.25	26.50	4.25	29.75	5.50	27.00	6.00	18.50	5.25	19.00	7.50	31.00	9.00
	19.75	3.25	32.75	7.75	22.75	7.00	21.75	5.25	26.75	7.75	22.50	7.00	16.00	7.50	26.25	8.25
	29.75	7.25	34.00	5.00	26.25	3.00	19.75	4.75	17.00	7.50	29.50	7.00	25.75	7.50	26.00	9.00
	22.25	1.25	31.00	7.00	26.00	5.50	22.25	4.00	24.50	5.25	34.75	8.00	12.00	4.00	15.25	7.50
	28.00	6.50	36.75	7.50	21.00	6.75	29.00	7.00	28.75	7.75	24.00	7.50	10.00	4.25	19.00	7.50
	12.50	0.25	21.00	5.50	22.50	7.25	26.25	6.75	28.00	8.00	36.00	7.50	34.00	9.00	18.25	7.00
	35.25	7.75	27.75	7.00	23.75	2.50	30.00	8.00	32.50	7.25	28.25	7.25	13.00	7.50	17.00	6.50
	39.00	7.50	19.25	2.75	23.25	8.00	21.00	4.50	25.25	6.50	32.25	7.75	35.25	6.50	21.00	8.50
	28.75	7.50	25.75	2.50	24.00	7.00	21.75	4.50	21.25	5.50	21.50	5.25	30.00	9.00	31.25	9.00
	21.25	2.00	22.50	1.00	23.50	8.00	22.50	6.50	31.00	8.00	30.00	8.00	18.00	7.00	19.00	8.50
Total.....	383.50	75.25	43.50	81.50	355.00	83.25	356.00	85.00	389.75	102.75	407.25	106.75	329.00	106.50	373.75	119.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest.....	40.00	617.38	8.25	41.25	30.00	463.04	8.00	40.00	36.00	555.65	8.00	40.00	36.00	555.65	9.00	45.00
Lowest.....	12.50	192.93	0.25	1.25	15.50	239.24	2.50	12.50	17.00	262.39	5.00	25.00	10.00	154.35	4.00	20.00
Average.....	27.23	420.28	5.23	26.15	23.70	365.80	5.61	28.05	26.27	414.73	6.98	34.90	23.42	361.48	7.52	37.60
Tests above average.....	16		17		14		16		15		20		15		12	
Tests below average.....	14		13		16		14		15		10		15		18	

	LINCOLN.															
Catalogue number of samples..	59. SIDE.				59. HIP.				60. SHOULDER.				60. SIDE.			
Length of fiber tested.....	4 centimeters.				——				——				——			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	15.25	7.00	19.50	15.50	36.00	7.00	36.25	5.50	39.00	3.25	33.00	8.00	49.00	8.00	24.00	8.25
	25.25	9.75	25.25	14.25	40.50	7.00	32.50	8.75	33.75	7.00	25.00	6.00	42.50	8.50	40.00	7.50
	22.00	15.00	16.00	10.00	32.00	7.50	34.00	7.50	20.00	6.50	42.50	8.00	47.00	9.25	24.00	8.00
	29.50	14.25	27.00	16.00	37.00	7.50	32.00	7.00	35.00	7.25	33.50	7.75	42.00	9.50	29.00	8.50
	21.00	12.75	22.00	13.75	23.00	6.25	31.75	8.50	42.00	8.00	32.00	6.50	42.50	8.25	38.00	8.00
	26.00	13.00	26.25	12.00	26.00	5.50	44.00	8.00	48.50	7.75	34.75	6.00	47.75	9.50	37.50	9.00
	33.00	15.00	24.00	16.00	34.00	7.00	34.50	8.00	45.00	8.00	30.00	7.75	47.00	7.25	41.00	9.50
	17.50	6.00	16.50	15.50	44.00	8.75	25.75	7.00	34.00	6.75	27.75	7.00	42.00	8.00	32.00	8.50
	21.00	14.00	21.00	13.00	27.00	7.00	35.00	7.25	30.00	6.50	33.50	7.00	33.00	8.50	39.00	8.25
	26.00	14.00	15.25	13.50	36.25	7.50	45.00	8.00	29.00	6.25	30.00	7.75	34.75	6.50	36.50	8.00
	29.00	15.00	25.00	6.00	25.50	7.25	34.50	6.00	32.50	7.50	26.50	6.50	37.50	6.25	25.00	8.25
	25.00	12.25	32.00	14.00	34.75	8.00	32.00	5.50	34.50	8.50	37.00	8.00	52.00	10.00	39.50	8.50
	28.00	13.25	23.00	14.00	40.50	8.00	43.50	8.75	32.00	8.00	35.00	8.50	34.00	8.50	36.25	6.50
	20.00	11.75	21.25	13.00	34.25	5.00	28.00	6.00	29.50	7.50	32.00	8.50	29.75	7.00	37.75	8.75
	21.25	9.75	18.00	11.00	40.50	8.50	31.50	6.00	31.00	7.75	32.00	8.00	29.00	8.00	44.00	8.50
Total.....	359.75	182.75	332.00	197.50	511.25	107.25	520.75	107.75	515.75	111.50	495.50	110.75	609.75	113.00	523.50	124.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest.....	33.00	509.34	16.00	40.00	45.00	694.58	8.75	43.75	48.50	748.58	8.50	42.50	52.00	802.60	10.00	50.00
Lowest.....	15.00	231.52	6.00	15.00	23.00	355.00	5.00	25.00	20.00	308.69	6.00	30.00	24.00	370.42	6.25	31.25
Average.....	23.05	355.77	12.67	31.67	34.40	530.95	7.16	35.80	33.75	520.30	7.41	37.55	37.77	582.96	7.90	39.50
Tests above average.....	15		21		15		15		14		18		12		24	
Tests below average.....	15		9		15		15		16		12		17		6	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

	LINCOLN.															
Catalogue number of samples..	60. SIDE.				60. HIP.				61. SHOULDER.				61. SIDE.			
Length of fiber tested	4 centimeters.				——				——				——			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	26.25	7.25	33.25	13.00	29.50	6.00	37.00	7.50	22.00	8.00	25.75	8.25	23.50	7.50	28.00	8.50
	37.00	14.00	38.00	17.00	39.00	7.00	27.50	6.25	21.25	7.75	22.25	7.75	28.25	9.50	31.00	10.25
	29.00	13.00	28.00	14.00	41.00	8.25	46.75	8.00	27.50	8.00	21.25	9.50	27.00	9.00	19.00	8.00
	35.00	13.00	35.00	17.25	42.00	8.00	30.00	7.00	21.00	7.00	20.25	5.00	26.25	9.25	25.25	9.25
	27.00	8.25	33.00	14.00	39.50	8.25	25.25	7.00	27.50	7.50	22.75	7.00	27.00	8.50	24.50	8.25
	39.75	15.00	30.00	15.00	49.00	8.00	25.00	7.50	20.25	7.50	22.00	6.75	24.00	9.25	23.50	7.50
	36.00	13.00	31.00	14.50	38.00	8.00	33.00	8.50	24.25	7.00	22.50	7.00	18.50	9.00	24.00	8.50
	37.00	14.00	29.25	12.50	37.50	8.00	31.00	6.50	25.50	7.75	23.75	6.75	27.25	7.50	22.00	8.25
	31.00	14.00	29.50	12.50	37.00	7.75	34.00	8.00	21.50	6.00	25.75	8.00	23.00	9.00	30.00	9.00
	38.00	16.50	34.00	16.00	36.00	7.75	26.00	5.25	20.25	7.75	22.75	8.00	30.00	9.00	20.00	8.25
	25.00	13.50	33.00	17.50	38.25	6.00	37.00	7.00	29.25	8.75	20.25	7.00	26.00	7.25	27.00	8.00
	30.00	15.00	38.75	15.00	28.00	5.00	36.50	8.25	24.50	7.50	20.25	8.00	29.75	8.25	20.00	9.50
	44.00	16.50	35.00	15.00	49.00	8.00	43.75	7.75	20.75	7.50	21.75	5.00	26.00	8.75	23.25	8.25
	30.25	13.50	43.25	17.25	33.75	8.50	25.50	7.00	25.25	8.00	22.25	6.00	30.00	10.00	26.25	8.50
	35.00	15.50	30.00	14.75	36.00	8.75	35.50	7.00	25.25	9.00	23.00	6.75	28.50	9.50	26.00	9.50
Total	494.75	207.00	501.00	225.25	567.00	113.25	509.75	108.50	362.00	114.75	354.50	106.50	393.00	130.25	373.75	130.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	44.50	686.84	17.00	45.00	49.00	756.30	8.75	43.75	29.25	451.46	9.50	47.50	31.00	478.47	10.25	51.25
Lowest	25.00	385.87	7.25	18.12	25.00	385.87	5.00	25.00	20.25	312.55	5.00	25.00	18.50	285.54	7.25	36.25
Average	33.19	514.27	14.40	36.00	35.89	553.95	7.30	36.95	23.88	368.58	7.38	36.90	25.55	394.35	8.67	43.35
Tests above average	14		18		18		18		13		18		17		14	
Tests below average.....	16		12		12		12		17		12		13		16	

	LINCOLN.															
Catalogue number of samples..	61. SIDE.				61. HIP.				164.				163.			
Length of fiber tested.....	4 centimeters.															
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	27.00	16.00	17.00	12.00	37.00	8.50	35.75	9.00	20.00	3.25	32.00	7.50	25.25	8.00	16.75	8.50
	21.00	12.50	21.00	13.25	26.00	7.75	22.50	7.00	14.25	1.25	27.25	7.25	13.50	1.00	17.00	7.75
	25.00	14.00	18.00	17.00	27.00	11.00	29.75	9.00	20.75	8.50	28.50	7.75	9.75	0.75	16.00	2.00
	23.00	14.00	16.00	14.50	29.00	9.00	35.00	10.25	26.50	8.00	18.75	9.00	16.75	2.75	15.75	5.00
	27.50	17.50	24.50	16.00	22.50	9.00	36.50	10.00	28.50	7.75	27.00	8.00	24.00	8.00	18.50	5.50
	28.00	15.50	24.50	16.50	34.00	7.00	30.00	8.00	20.75	3.50	29.00	8.00	16.25	5.75	13.75	0.75
	27.00	15.25	26.25	16.00	28.25	8.00	33.50	9.50	24.50	9.25	18.00	1.50	14.00	7.75	22.00	8.00
	24.00	14.00	20.00	11.00	30.00	9.50	24.00	6.25	23.25	6.00	19.50	9.00	20.00	7.75	19.50	7.00
	27.50	15.00	25.50	13.50	31.00	7.00	42.50	8.00	23.50	7.00	17.50	5.00	24.75	7.25	18.00	4.25
	19.00	12.25	20.00	14.50	27.00	9.00	31.75	9.25	22.75	7.25	20.50	6.75	11.50	1.50	15.00	2.50
	22.75	12.25	28.00	16.00	33.00	8.25	34.00	8.00	29.50	7.00	32.25	8.75	19.75	4.50	15.00	3.50
	25.00	16.25	24.50	16.00	22.25	6.50	24.00	7.00	19.75	7.50	15.75	0.25	12.25	0.75	13.25	1.00
	27.00	13.50	26.25	15.25	26.75	8.00	23.00	7.00	16.75	2.00	25.00	7.00	12.00	2.00	20.75	7.00
	24.00	14.50	19.75	16.00	13.25	6.00	20.50	8.00	29.00	7.50	27.00	8.00	25.75	8.00	24.25	7.50
	17.00	16.50	24.00	15.00	31.50	8.00	25.00	8.50	15.75	3.50	16.75	7.25	27.50	8.00	13.00	1.25
Total	360.75	221.00	382.25	222.50	404.50	122.50	459.75	124.75	340.50	89.25	354.75	109.00	273.00	73.75	258.50	66.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	28.00	432.17	17.50	43.75	42.50	655.97	11.00	55.00	32.25	497.77	9.25	46.25	27.50	424.45	8.00	40.00
Lowest	16.00	246.95	11.00	27.50	19.25	297.12	6.00	30.00	14.25	219.94	1.25	6.25	11.50	177.50	0.75	3.75
Average	23.10	356.54	14.78	36.95	28.80	444.52	8.24	41.20	23.18	357.77	6.58	32.90	17.72	273.50	4.67	23.35
Tests above average	16		16		15		14		16		21		13		15	
Tests below average.....	14		14		15		16		14		9		17		15	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

LINCOLN.

Catalogue number of samples..	166.				167.				168.				169.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	18.00	4.50	25.00	7.00	20.25	7.25	11.25	1.00	20.50	6.25	15.50	2.50	25.50	8.00	26.00	7.75
	13.50	1.75	17.00	4.75	25.00	7.25	19.00	7.50	10.00	1.25	18.75	8.00	25.00	7.75	33.50	8.25
	25.75	8.00	24.00	7.25	23.50	7.75	33.00	9.50	10.75	1.25	23.00	8.50	11.75	8.75	22.75	11.50
	26.00	7.00	30.00	7.25	22.75	7.50	26.00	9.25	25.25	8.00	21.25	7.00	31.50	9.25	24.00	3.00
	10.75	4.00	18.75	7.00	25.00	8.00	23.25	6.25	15.25	4.50	17.75	7.25	25.25	8.25	27.25	6.50
	22.00	5.75	18.25	8.75	25.50	8.25	32.75	8.75	23.00	6.75	24.00	8.25	26.00	8.00	26.50	7.75
	25.50	6.50	19.50	2.00	22.00	5.75	26.00	7.00	14.75	6.00	17.00	7.50	22.00	8.75	25.00	8.50
	19.00	6.75	15.75	6.25	20.50	6.75	30.00	8.00	18.25	6.75	24.50	9.50	17.00	4.75	8.50	6.75
	26.50	7.75	23.25	7.00	15.25	1.25	20.00	5.00	13.00	6.00	13.00	5.75	21.50	2.50	21.25	6.50
	21.50	1.25	23.00	5.25	14.50	8.00	23.50	7.25	13.75	2.00	19.75	8.75	20.00	5.25	12.00	4.75
	24.25	8.00	7.00	2.00	22.75	6.25	27.00	8.75	20.50	8.75	14.00	4.75	13.00	6.00	28.00	12.75
	28.50	7.00	11.75	8.25	24.75	8.75	23.00	8.00	12.50	6.75	20.25	8.00	31.00	8.00	27.50	7.00
	18.00	6.50	15.00	7.50	22.00	4.75	28.25	8.75	16.50	7.75	19.50	7.50	29.00	8.00	15.75	6.75
	22.50	8.00	25.50	8.25	15.00	1.25	24.75	6.25	21.75	8.25	17.00	3.00	14.00	2.00	26.50	7.25
	24.75	7.00	18.25	6.50	18.00	5.75	18.00	3.00	16.50	5.50	15.00	6.00	14.00	7.00	24.00	7.00
Total	326.50	89.75	292.00	95.00	316.75	94.50	365.75	104.25	252.25	85.75	280.25	102.25	326.50	102.25	348.50	112.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	30.00	463.04	8.75	43.75	33.00	509.34	9.50	47.50	25.25	389.72	9.50	47.50	33.50	517.06	12.75	63.75
Lowest	7.00	108.04	1.25	6.25	11.25	173.64	1.00	5.00	10.00	154.35	1.25	6.25	8.50	131.19	2.00	10.00
Average	20.62	318.26	6.16	30.80	22.75	351.14	6.63	33.15	17.75	273.96	6.27	31.35	22.50	347.28	7.14	35.70
Tests above average	16		21		16		19		14		17		18		11	
Tests below average	11		9		12		11		15		13		12		16	

SOUTHDOWN.

Catalogue number of samples..	62. SHOULDER.				62. SIDE.				62. HIP.				63. SHOULDER.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	17.75	6.50	17.00	2.00	17.00	7.50	10.25	6.50	17.00	8.00	12.50	8.00	7.50	6.00	17.50	7.75
	13.25	4.25	11.50	2.00	8.00	3.50	12.00	6.00	13.50	6.25	15.50	6.00	13.75	7.00	18.50	5.25
	11.25	1.25	9.50	3.00	15.00	7.00	13.25	8.00	11.00	8.00	12.25	6.00	12.75	5.75	19.00	7.75
	13.00	2.75	13.50	2.75	8.50	7.25	11.50	5.00	13.25	5.00	7.50	4.75	18.25	7.50	16.75	7.25
	8.75	2.00	15.50	2.75	9.00	4.50	11.00	5.00	12.25	6.50	14.50	8.00	20.00	4.75	9.75	5.50
	9.50	1.00	11.75	5.00	9.00	6.00	8.75	5.00	13.75	4.75	18.00	8.00	15.50	7.00	8.75	6.00
	12.50	5.75	13.25	2.00	14.00	7.00	12.00	8.00	14.00	6.00	15.00	8.00	9.00	6.75	17.00	5.25
	10.75	2.50	9.00	1.25	9.00	4.50	10.50	7.00	13.00	6.75	11.75	7.00	16.00	4.50	15.50	7.00
	13.00	6.25	8.50	1.50	8.00	3.25	10.50	8.00	11.75	6.50	15.00	6.50	15.50	7.75	12.00	6.00
	10.50	6.25	13.50	4.75	15.00	7.50	15.00	3.75	14.00	8.00	11.00	4.00	15.00	6.00	10.50	5.00
	14.00	3.00	14.75	5.00	8.00	3.50	19.25	7 25	14.00	6.50	11.00	4.00	10.00	6.50	13.00	8.00
	12.50	1.50	10.00	1.00	14.00	7.50	9.50	6.25	9.75	4.00	14.50	7.00	10.75	6.75	7.50	5.00
	13.00	3.25	13.50	2.00	15.25	7.75	12.00	6.00	16.00	6.00	15.00	5.25	16.00	5.00	15.50	5.50
	12.25	3.25	13.75	1.00	9.75	6.00	9.00	5.50	15.00	6.00	9.75	6.25	12.75	6.75	10.75	4.50
	12.00	1.25	14.75	5.00	13.25	7.25	11.00	4.50	12.00	6.00	19.00	7.00	11.75	6.50	14.00	5.50
Total	184.00	50.75	189.75	41.00	172.75	90.00	175.50	91.75	200.25	94.25	202.25	95.75	204.50	94.50	206.00	91.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	17.75	273.96	6.50	32.50	19.25	297.12	8.00	40.00	19.00	293.26	8.00	40.00	20.00	308.69	8.00	40.00
Lowest	8.50	131.19	1.00	5.00	8.00	123.48	3.25	16.25	7.50	115.76	4.00	20.00	7.50	115.76	4.50	22.50
Average	12.46	192.31	3.06	15.30	11.60	179.04	6.05	30.25	13.41	206.98	6.33	31.65	13.68	211.15	6.19	30.95
Tests above average	16		11		14		15		16		15		16		14	
Tests below average	14		19		14		15		14		15		14		16	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

Catalogue number of samples..	SOUTHDOWN.															
	63. SIDE.				63. HIP.				91. SHOULDER.				91. SIDE.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	12.00	9.00	6.50	7.75	16.50	3.75	13.00	7.00	10.25	5.00	9.50	2.50	15.50	5.25	14.75	5.50
	13.25	8.00	6.50	7.50	16.00	6.00	21.00	6.75	12.00	4.25	12.75	2.00	12.00	6.00	19.50	9.00
	11.00	8.00	9.00	9.00	22.00	7.25	11.00	6.25	10.50	3.75	13.00	5.75	13.50	6.00	11.00	5.00
	10.00	3.00	10.00	7.00	19.25	6.00	21.50	5.50	10.25	1.50	14.50	5.75	12.50	6.75	15.00	7.50
	22.00	8.00	9.00	5.50	17.00	7.00	17.50	6.00	14.75	6.75	11.75	3.25	17.00	4.00	16.00	6.00
	20.25	9.50	8.00	7.50	15.75	7.75	14.00	6.00	13.25	6.50	13.50	6.50	13.00	4.50	15.00	6.50
	9.00	6.25	16.00	6.50	16.00	4.25	14.75	3.50	6.75	3.00	16.00	4.25	17.25	5.75	12.50	4.25
	9.50	8.50	12.25	8.25	13.75	6.00	12.00	4.50	8.25	2.00	12.75	2.00	8.00	5.00	8.50	5.00
	13.00	6.50	7.00	5.00	15.00	7.00	11.50	7.50	14.25	5.25	12.75	5.25	9.75	5.25	11.00	5.50
	6.00	2.50	8.00	6.00	15.00	7.00	19.50	6.00	9.75	1.25	11.75	1.75	9.50	5.25	12.00	6.00
	9.00	4.00	11.00	6.00	13.75	4.50	17.00	6.00	12.00	4.25	14.00	4.00	13.25	6.50	13.00	4.25
	18.00	10.00	12.00	4.25	17.50	6.00	20.00	7.25	11.50	7.00	11.00	5.75	12.00	5.00	14.50	6.50
	12.00	8.25	18.00	7.25	20.75	5.00	11.00	4.00	12.50	3.25	11.00	3.75	15.00	6.00	17.00	5.50
	7.00	6.50	22.00	9.00	13.00	4.00	15.00	5.00	11.00	5.50	10.00	3.00	13.50	7.25	12.00	4.50
	13.00	7.25	11.00	4.50	13.50	4.50	22.00	7.00	10.00	3.50	10.00	4.75	10.25	5.50	13.50	6.50
Total	185.00	105.25	166.25	111.25	244.75	86.00	246.25	88.75	167.00	62.75	184.25	60.25	102.00	82.00	205.25	90.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	22.00	339.56	10.00	55.60	22.00	339.56	7.75	38.75	14.75	227.66	7.00	35.00	19.50	300.97	9.00	45.00
Lowest	6.00	92.60	2.50	12.50	11.00	169.78	3.50	17.50	6.75	104.18	1.50	7.50	8.00	123.48	3.50	17.50
Average	11.70	180.59	6.88	34.40	16.33	252.05	5.81	29.05	11.71	180.74	4.10	20.50	13.24	204.35	5.75	28.75
Tests above average.....	14		16		14		10		15		15		15		12	
Tests below average.....	16		14		16		11		15		15		15		17	

Catalogue number of samples..	SOUTHDOWN.															
	91. HIP.				92. SHOULDER.				92. SIDE.				92. HIP.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	23.00	2.75	27.75	6.75	19.75	7.25	14.00	6.00	9.00	5.75	10.50	3.50	25.75	7.50	15.75	3.50
	12.00	1.00	13.25	3.00	12.75	7.00	21.75	6.75	11.25	4.00	19.25	3.50	32.00	6.50	22.00	4.75
	15.50	2.75	29.00	8.25	8.00	5.00	12.00	7.25	9.50	5.00	16.75	7.00	13.00	1.25	25.50	4.75
	22.00	6.00	11.00	4.25	13.00	8.00	17.25	6.25	9.50	4.25	9.00	3.25	24.00	3.75	17.25	6.75
	13.00	4.25	14.00	6.25	11.50	6.50	10.00	4.50	12.75	6.00	10.50	5.75	23.50	2.75	16.50	2.25
	24.00	7.50	15.00	4.25	9.25	7.50	9.00	4.75	9.00	5.75	23.00	6.75	20.75	2.75	19.00	1.50
	17.75	7.25	12.00	2.00	26.00	7.50	19.25	8.25	20.00	5.75	12.50	6.75	14.50	1.00	33.00	8.00
	17.50	4.25	13.75	1.25	8.25	4.50	10.00	5.75	11.00	4.00	21.75	7.00	17.50	3.00	23.25	3.00
	16.00	3.00	20.50	5.75	18.00	6.25	7.50	4.50	15.00	6.50	17.00	7.00	32.00	5.00	15.25	3.00
	25.50	7.00	16.00	3.50	18.50	7.50	15.50	6.75	10.75	6.50	10.00	5.25	27.50	6.50	16.25	3.50
	13.75	2.00	18.00	5.75	10.00	5.50	20.00	7.00	18.00	7.00	18.00	7.00	13.00	2.00	18.00	2.50
	11.00	2.00	19.25	1.75	22.00	6.50	21.75	4.50	9.00	4.75	15.00	6.75	18.00	6.50	22.00	6.00
	17.75	6.00	11.75	2.00	8.50	4.50	8.50	5.25	14.50	4.25	8.75	4.75	23.00	2.50	23.75	5.25
	23.50	3.00	14.50	1.50	21.00	6.25	10.25	7.00	11.50	5.25	23.00	7.00	18.50	1.75	26.25	6.00
	11.50	1.75	20.00	4.00	12.25	6.25	16.00	6.75	11.00	6.00	10.50	6.75	20.00	7.50	27.00	7.00
Total	263.75	65.50	262.75	60.25	218.75	96.00	212.75	91.25	181.75	80.75	225.50	88.00	323.00	63.25	320.75	68.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest.....	29.00	447.60	8.25	41.25	26.00	401.30	8.25	41.25	23.00	354.99	7.00	35.00	33.00	509.34	8.00	40.00
Lowest	11.00	169.78	1.00	5.00	7.50	115.76	4.50	22.50	8.75	135.05	3.25	16.25	13.00	200.65	1.00	5.00
Average.....	17.55	270.83	4.19	20.95	14.38	221.95	6.24	31.20	13.57	209.45	5.62	28.10	21.46	331.23	4.54	22.70
Tests above average.....	14		15		13		10		12		13		15		15	
Tests below average.....	16		15		17		11		18		12		15		15	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

SOUTHDOWN.

Catalogue number of samples..	93. SHOULDER.				93. SIDE.				93. HIP.				94. SHOULDER.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	10.00	4.00	15.00	5.75	14.50	2.75	13.75	3.00	11.75	2.50	14.00	4.75	8.00	4.50	15.50	6.00
	12.25	3.50	12.75	4.00	21.00	7.00	10.00	5.75	16.75	8.00	13.00	2.00	10.25	6.25	11.00	1.25
	7.50	2.50	16.50	5.50	9.50	4.50	17.25	7.75	8.00	4.75	21.00	7.00	12.50	2.00	11.00	6.75
	14.00	5.25	15.25	7.00	19.25	5.75	12.50	5.50	8.00	1.25	12.50	1.50	16.00	4.00	13.50	4.50
	10.50	1.50	10.00	4.50	16.00	4.00	18.00	5.75	21.00	5.00	9.50	1.50	10.50	5.50	11.00	6.00
	9.25	1.75	18.50	6.00	19.00	7.00	18.00	7.25	23.00	7.50	9.00	4.75	12.00	3.00	10.50	2.00
	14.00	6.00	11.50	5.25	4.25	7.75	15.00	6.25	15.00	2.00	20.00	5.00	9.50	2.00	14.00	4.50
	15.50	5.00	11.00	5.00	16.00	6.00	12.50	6.75	11.00	3.00	8.50	3.00	9.00	5.50	11.00	2.75
	17.75	8.00	10.25	2.75	10.00	4.75	14.00	7.00	12.00	3.75	14.00	3.00	8.25	2.25	11.00	4.75
	13.50	7.50	18.00	8.25	12.00	2.50	19.00	7.25	14.50	4.75	13.25	4.50	11.00	1.25	11.25	5.00
	6.50	2.50	12.00	2.25	12.00	5.00	9.25	7.00	17.50	5.00	15.00	5.50	21.50	7.75	8.00	6.50
	[illegible]	2.75	10.25	1.75	16.50	6.75	11.50	5.00	19.50	7.00	22.50	6.00	13.50	7.50	14.00	6.75
	20.00	6.75	12.50	3.50	12.75	4.00	13.75	7.00	13.25	2.75	17.00	7.00	10.25	7.00	14.00	5.25
	8.25	2.75	11.00	2.50	12.00	3.00	10.25	7.00	11.00	2.00	21.00	6.50	11.50	4.25	11.00	2.75
	10.25	5.75	14.00	7.00	11.00	4.00	14.00	4.75	12.00	3.00	10.50	3.50	15.00	7.00	13.00	6.25
Total	177.75	65.50	198.50	71.00	215.75	74.75	208.75	93.25	214.25	62.25	220.75	65.50	178.75	69.75	179.75	71.00

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grams.*	*mm.*	*per ct.*	*grams.*	*grams.*	*mm.*	*per ct.*	*grams.*	*grams.*	*mm.*	*per ct.*	*grams.*	*grams.*	*mm.*	*per ct.*
Highest	20.00	308.69	8.25	41.25	21.00	324.13	7.75	38.75	23.00	355.00	8.00	40.00	21.50	331.84	7.75	38.75
Lowest	6.50	100.32	1.50	7.50	9.25	142.77	2.50	12.50	8.00	123.48	1.25	6.25	8.00	123.48	1.25	6.25
Average	12.54	193.55	4.55	22.75	14.15	218.40	5.60	28.00	14.50	223.80	4.26	21.30	11.95	184.44	4.69	23.45
Tests above average	13		15		13		18		12		16		12		16	
Tests below average	17		15		17		12		17		14		18		14	

SOUTHDOWN.

Catalogue number of samples..	94. SIDE.				94. HIP.				95. SHOULDER.				95. SIDE.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	12.50	7.00	11.00	6.00	26.00	6.00	25.00	7.00	13.50	6.00	11.20	4.50	7.50	3.75	6.75	3.50
	14.00	7.50	9.75	5.25	17.00	5.00	9.25	4.75	12.25	5.25	11.50	7.50	14.00	5.50	4.50	1.50
	14.25	[illegible]	10.00	2.50	10.50	1.75	20.00	4.50	10.00	7.25	11.00	5.00	11.00	8.00	10.25	2.00
	13.00	5.00	9.00	2.50	20.00	6.00	17.50	2.00	9.00	7.00	9.50	6.00	10.00	5.00	11.00	5.50
	11.00	3.00	10.00	2.50	18.75	1.50	16.75	2.50	7.25	4.25	9.75	4.00	10.00	4.00	7.50	2.50
	10.00	7.00	10.50	6.00	20.00	7.00	20.25	4.75	9.00	5.75	10.50	4.50	8.50	3.50	6.25	2.25
	10.50	7.00	14.00	5.50	18.00	5.75	11.00	3.00	7.25	2.75	10.75	7.25	6.25	5.75	9.25	5.25
	11.50	2.50	17.00	7.50	19.25	5.75	19.50	2.50	12.00	7.50	15.00	7.25	8.75	5.00	11.50	8.50
	16.25	8.00	14.00	7.00	14.75	2.75	19.50	6.00	10.00	6.00	9.75	4.50	12.00	5.75	7.00	7.25
	11.50	6.75	10.00	5.00	26.50	7.00	18.25	3.50	11.00	3.00	11.00	0.00	9.25	3.50	10.50	6.50
	16.00	[illegible]	11.50	6.50	22.50	6.00	24.75	7.00	12.25	2.50	10.00	5.75	8.25	3.25	5.75	5.00
	[illegible]	7.75	17.75	5.00	23.00	5.00	19.50	6.00	10.75	4.75	13.00	8.00	11.50	7.00	8.75	6.00
	9.75	4.00	9.75	4.00	17.00	4.50	19.25	[illegible]	14.50	7.75	12.75	6.75	11.00	2.50	14.00	7.75
	10.00	4.00	9.00	3.00	15.00	1.50	16.25	6.50	10.00	5.75	7.25	2.75	11.25	4.75	11.25	6.25
	15.50	[illegible]	20.00	7.50	11.00	5.25	26.00	6.25	12.25	3.50	10.00	5.00	9.50	7.00	5.00	3.00
Total	196.75	93.75	173.25	75.75	279.25	70.75	282.75	72.25	161.00	79.00	163.00	84.75	148.75	74.25	129.25	72.75

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grams.*	*mm.*	*per ct.*	*grams.*	*grams.*	*mm.*	*per ct.*	*grams.*	*grams.*	*mm.*	*per ct.*	*grams.*	*grams.*	*mm.*	*per ct.*
Highest	21.00	324.13	8.00	40.00	26.50	409.02	7.00	35.00	15.00	[illegible]	8.00	[illegible]	14.00	216.08	8.50	42.50
Lowest	7.75	119.62	2.50	12.50	9.25	142.77	1.50	7.50	7.25	111.90	2.50	12.50	4.50	69.46	1.50	7.50
Average	12.33	190.31	5.65	28.25	18.73	289.09	4.77	23.85	10.80	166.69	5.46	27.30	9.28	142.92	4.90	24.50
Tests above average	12		17		17		17		14		16		15		17	
Tests below average	18		13		13		13		16		14		15		13	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

SOUTHDOWN.

Catalogue number of samples..	95. [illegible]		132.		133.		134.	
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	14.75	3.75	11.25	3.00	10.00	1.25	7.00	16.00
	9.00	2.00	20.25	6.75	4.50	1.25	12.00	5.75
	12.75	2.75	10.50	4.00	11.00	1.75	15.00	7.50
	17.25	7.25	18.25	4.00	13.00	4.25	18.50	6.75
	16.25	2.00	5.00	9.00	13.00	6.75	17.75	5.00
	6.25	1.75	15.00	6.75	15.50	7.25	12.75	7.75
	13.50	5.25	5.75	0.75	12.50	3.00	12.00	10.25
	17.00	4.75	10.25	6.25	11.75	3.00	9.00	16.00
	16.25	5.50	9.00	3.25	15.25	8.50	12.75	16.75
	14.75	4.00	2.50	1.00	6.50	0.50	6.75	12.50
	12.50	3.25	14.75	7.00	5.75	0.75	9.50	7.00
	12.25	4.00	22.75	1.50	10.00	4.25	9.75	7.00
	10.75	2.50	2.50	0.25	10.50	2.25	11.00	3.00
	10.00	1.00	18.00	8.25	6.50	0.75	12.75	5.25
	16.75	3.25	7.75	2.50	9.75	1.00	13.75	4.00
Total	188.00	55.00	166.50	51.50	161.00	57.50	157.50	46.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	20.00	308.69	7.25	36.25	28.00	432.17	8.25	41.25	16.25	250.81	8.50	42.50	18.50	285.54	8.00	40.00
Lowest	6.00	92.61	1.25	6.25	2.50	38.55	0.25	1.25	4.50	69.46	0.50	2.50	3.00	46.30	0.50	2.50
Average	12.73	196.48	3.69	18.45	10.92	168.55	3.63	18.15	9.99	154.09	3.45	17.25	12.73	196.48	4.34	21.70
Tests above average	15		15		12		14		10		13		16		15	
Tests below average	15		15		18		16		11		18		14		15	

SOUTHDOWN.

Catalogue number of samples..	135.		136.		137.		138.	
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	13.50	6.75	5.00	1.00	5.50	2.00	4.50	1.25
	18.00	3.75	13.75	5.25	13.50	0.25	14.25	6.00
	13.00	2.50	4.00	1.50	19.00	7.50	8.75	2.00
	16.75	6.00	14.00	3.25	15.00	3.75	11.00	1.75
	10.25	4.25	13.25	1.00	8.75	1.75	6.00	2.00
	18.00	6.00	16.50	5.25	15.50	2.25	6.75	4.75
	11.75	2.50	5.50	6.75	4.00	1.25	12.00	5.00
	23.75	6.25	10.75	0.75	17.50	7.25	10.50	6.50
	13.75	4.00	9.75	4.25	16.00	7.25	8.50	2.00
	14.00	3.25	4.50	2.00	18.50	6.25	8.00	2.00
	12.25	3.75	15.00	6.75	13.00	1.50	9.50	1.00
	6.00	0.75	12.75	5.50	10.25	2.75	9.00	1.25
	7.75	3.50	15.25	1.75	13.00	2.00	5.75	1.25
	9.75	2.50	6.00	0.25	11.00	2.25	6.50	1.50
	16.25	4.75	13.25	7.00	6.25	4.00	11.00	5.75
Total	204.75	60.50	157.25	52.25	186.75	58.00	132.00	44.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	23.75	366.57	6.75	33.75	22.00	339.56	7.75	38.75	22.50	347.28	18.00	50.00	15.50	239.23	7.25	36.25
Lowest	6.00	92.61	1.75	2.75	4.00	61.74	0.25	1.25	4.00	61.74	1.25	6.25	3.50	54.02	0.75	3.75
Average	12.79	197.40	3.62	18.10	11.64	179.67	3.93	19.65	13.82	213.31	4.54	22.70	8.11	125.17	3.03	15.15
Tests above average	14		16		15		14		14		14		13		11	
Tests below average	14		14		15		16		16		16		17		19	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

Catalogue number of samples..	SOUTHDOWN.															
	139.				140.				141.				142.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	8.25	1.75	17.50	2.25	11.00	1.00	8.00	1.25	12.75	3.25	12.25	1.00	12.75	7.75	9.00	1.75
	12.75	2.00	7.25	3.50	13.00	4.00	7.50	1.25	10.25	4.00	6.00	4.00	7.50	2.50	10.75	7.25
	11.75	3.25	5.75	1.25	11.00	5.00	12.00	7.25	22.00	7.25	7.50	2.25	6.75	2.25	18.75	8.05
	26.25	6.50	9.50	1.00	6.75	2.00	8.25	2.00	9.00	2.25	8.00	1.50	10.00	2.50	8.00	4.25
	13.00	1.50	8.00	6.25	12.75	1.50	13.50	3.00	15.25	2.50	10.75	2.00	18.00	7.50	9.00	1.50
	7.75	3.00	10.25	3.25	4.00	2.00	5.00	1.00	9.00	1.25	8.25	4.50	7.00	1.50	6.00	4.00
	10.00	3.00	3.50	2.00	9.50	5.00	12.00	6.75	16.50	2.00	15.00	6.00	11.75	2.50	3.00	0.75
	5.00	3.00	8.25	0.75	11.00	5.00	7.25	1.00	13.00	7.25	5.75	1.25	11.00	7.00	4.00	0.75
	11.00	2.25	12.50	2.50	12.00	3.00	12.50	1.50	10.25	2.25	6.25	6.25	13.50	5.75	14.00	6.00
	6.50	5.25	19.75	2.25	11.25	2.50	12.00	7.00	17.75	5.75	10.00	1.75	9.50	6.50	7.75	6.25
	4.50	1.00	18.75	8.00	9.75	1.75	9.00	2.75	8.25	4.75	13.50	3.00	5.75	2.00	6.75	3.25
	6.75	2.75	14.00	7.50	20.25	8.00	9.25	5.75	12.00	1.25	19.75	7.00	5.50	1.25	7.50	2.00
	6.25	3.75	12.50	2.50	8.75	2.00	17.25	7.00	13.75	7.25	7.75	2.00	8.00	7.50	8.25	6.25
	5.00	0.75	5.75	2.75	12.00	1.75	10.50	5.75	10.00	2.00	18.75	3.50	9.50	5.25	5.25	1.75
	24.75	8.00	13.25	7.25	6.25	2.75	7.00	6.00	5.25	3.00	22.50	5.75	6.50	2.00	11.75	4.75
Total	159.50	47.75	166.50	53.00	159.25	47.25	151.00	59.25	185.00	56.00	172.00	51.75	143.00	63.75	129.75	58.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	26.25	405.16	8.00	40.00	20.25	312.55	8.00	40.00	22.50	347.28	7.25	36.25	18.75	289.40	7.75	38.75
Lowest	3.50	54.02	0.75	3.75	4.00	61.74	1.00	5.00	5.25	81.03	1.00	5.00	3.00	46.30	0.75	3.75
Average	10.87	167.77	3.36	16.80	10.34	159.59	3.55	17.75	11.90	183.67	3.59	17.95	9.09	140.30	4.08	20.40
Tests above average	13		9		16		13		14		13		13		14	
Tests below average	17		21		14		18		16		18		18		16	

Catalogue number of samples..	SOUTHDOWN.								OXFORD.							
	143.				144.				64. SHOULDER.				64. SIDE.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	11.00	1.75	5.50	1.75	12.75	4.75	6.25	1.00	21.00	2.00	25.25	4.75	29.50	5.00	34.00	7.50
	17.75	1.75	23.50	6.25	7.75	1.25	15.75	6.75	31.25	7.00	33.00	4.75	36.25	6.50	33.00	8.00
	9.75	3.50	3.50	0.25	8.25	4.00	10.00	1.75	33.00	6.25	35.50	2.00	27.50	4.00	25.75	6.50
	13.75	1.50	15.25	2.00	8.75	2.75	15.00	8.00	43.75	7.50	31.50	1.75	32.00	7.25	47.00	9.00
	12.75	2.00	10.75	1.25	5.75	0.75	9.25	1.25	30.50	3.75	20.50	7.00	26.75	8.75	38.00	8.50
	11.50	2.75	9.25	1.50	15.00	5.25	14.50	5.50	31.00	5.00	32.00	4.75	35.00	8.00	27.00	9.00
	8.75	0.75	14.25	2.25	3.50	0.75	11.75	2.00	16.00	5.75	28.25	5.25	27.50	8.00	26.00	6.50
	15.75	4.75	6.00	1.00	12.00	4.00	4.75	1.75	35.75	6.25	25.00	4.75	29.00	7.75	33.00	9.00
	18.00	2.50	8.00	3.25	16.75	4.50	18.00	5.50	28.50	7.50	29.50	6.50	22.00	8.50	42.00	9.00
	7.50	1.25	14.00	2.50	6.75	0.25	9.00	1.00	47.75	8.00	33.50	7.00	26.00	8.25	34.75	8.50
	19.75	4.50	7.00	2.25	5.50	1.00	11.50	1.25	29.50	1.75	42.25	7.50	34.50	7.50	22.50	7.75
	21.00	5.75	23.00	6.25	11.75	1.75	10.25	2.25	28.00	4.75	28.00	1.75	28.00	10.00	36.75	6.50
	6.25	2.00	14.00	5.00	18.50	7.25	16.25	7.50	32.00	2.75	35.50	8.25	26.50	6.50	34.50	7.25
	20.75	6.25	12.75	5.25	11.75	7.00	13.25	5.25	36.25	4.75	41.00	7.75	26.25	7.25	27.00	5.50
	18.25	8.25	17.25	7.25	5.25	2.00	18.75	7.75	35.00	6.75	31.50	3.00	[illegible]	6.00	33.25	6.25
Total	212.50	49.25	184.00	48.00	150.00	47.25	184.25	58.50	479.75	79.75	478.25	76.75	435.24	109.25	494.50	114.75

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	23.50	362.71	8.25	41.25	18.75	289.40	8.00	40.00	47.75	737.00	8.25	41.25	47.00	725.44	10.00	50.00
Lowest	3.50	54.02	0.25	1.25	3.50	54.02	0.25	1.25	16.00	246.95	1.75	8.75	22.00	339.56	4.00	[illegible]
Average	13.22	204.05	3.24	16.20	11.14	171.94	3.53	17.65	31.94	492.98	5.23	26.10	30.99	478.32	7.46	[illegible]
Tests above average	15		12		16		14		14		15		14		13	
Tests below average	15		18		14		16		16		15		16		12	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

	OXFORD.															
Catalogue number of samples..	64. SIDE.				64. HIP.				65. SHOULDER.				65. SIDE.			
Length of fiber tested	4 centimeters.				——				——				——			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	49.25	13.00	32.00	14.00	36.00	6.50	42.50	9.25	27.50	8.50	31.25	7.50	21.00	7.75	13.00	7.25
	29.25	15.25	32.00	14.00	25.00	2.50	44.25	7.25	30.50	7.75	29.25	6.00	23.00	7.00	19.50	8.00
	34.00	14.25	27.50	13.00	27.00	4.25	33.25	8.25	31.00	6.50	21.50	4.25	18.00	7.00	27.50	7.50
	34.00	17.00	30.50	8.50	33.00	8.00	37.00	7.50	26.50	6.25	33.06	7.75	20.50	4.50	15.00	7.50
	32.25	14.00	19.00	9.50	43.00	8.00	27.50	6.50	25.50	4.50	24.50	5.00	23.25	8.50	20.00	8.25
	25.00	10.00	26.25	13.25	21.00	3.00	38.00	8.00	24.50	7.00	33.50	7.75	12.00	7.50	19.75	5.25
	20.00	11.00	27.25	15.50	32.00	5.75	38.00	6.50	27.00	5.75	26.75	6.75	32.25	7.50	25.00	7.00
	34.00	13.00	28.75	12.25	45.00	9.50	25.00	1.25	42.25	8.50	30.00	5.50	22.25	8.00	13.50	7.00
	31.00	14.75	31.25	17.00	30.00	5.25	35.00	7.00	23.50	7.00	31.75	6.50	19.00	7.00	18.50	8.00
	26.25	9.25	29.00	16.00	25.00	7.00	32.00	6.00	26.75	4.50	24.75	4.75	16.50	8.00	23.25	7.50
	33.00	14.25	30.50	14.25	29.50	2.75	27.00	3.00	34.50	7.75	36.75	8.00	28.50	8.25	21.00	5.50
	31.00	15.00	36.75	14.50	22.00	6.00	27.50	2.00	25.50	5.00	34.25	7.75	24.00	8.75	12.00	5.00
	24.25	10.00	33.75	17.00	39.00	7.00	30.50	7.00	35.50	7.50	33.00	8.00	23.00	7.50	13.00	5.00
	20.00	12.25	27.00	13.00	50.25	8.00	23.75	5.25	37.75	9.00	40.25	7.25	18.00	8.00	23.00	8.00
	40.00	17.22	29.50	12.25	40.00	8.00	27.00	6.00	24.75	4.75	31.50	6.25	12.00	5.50	13.00	5.50
Total	442.25	201.25	443.00	200.50	503.75	92.50	488.25	91.00	443.00	100.25	456.00	93.00	312.25	125.75	279.00	102.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	40.00	617.38	17.25	43.12	50.25	775.59	9.50	47.50	42.25	652.11	9.00	45.00	32.00	493.91	8.75	43.75
Lowest	19.00	293.26	8.00	20.00	21.00	324.13	1.25	6.25	20.75	320.27	4.25	21.25	12.00	185.21	4.50	22.50
Average	29.50	455.32	13.39	33.47	33.08	510.58	6.11	30.55	29.97	462.57	6.64	33.20	19.70	304.06	7.03	35.15
Tests above average.....	15		17		13		18		16		16		14		17	
Tests below average.....	14		13		17		12		14		14		14		13	

	OXFORD.															
Catalogue number of samples..	65. HIP.				66. SHOULDER.				66. SIDE.				66. SIDE.			
Length of fiber tested	——				——				1 centimeter.				2 centimeters.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	28.50	8.00	20.00	6.75	19.75	4.75	16.75	2.00	21.50	5.00	30.00	5.00	16.50	8.50	28.00	10.25
	20.00	8.00	16.00	3.50	21.25	7.25	27.75	5.75	13.00	4.75	31.00	5.00	18.75	9.50	22.00	8.00
	36.00	8.00	33.25	8.00	16.50	2.25	18.00	0.00	21.00	5.00	25.25	5.00	29.00	9.00	32.50	9.00
	32.00	8.00	37.75	8.00	19.00	5.00	19.50	4.50	20.00	4.00	31.00	4.75	23.00	9.25	29.25	8.25
	29.50	4.00	33.50	6.00	19.25	6.50	28.25	7.50	14.50	4.00	23.50	5.00	22.50	8.75	37.00	10.25
	26.00	8.00	29.00	7.00	23.50	7.25	25.25	4.00	14.00	4.25	21.00	6.00	14.00	8.00	34.75	8.00
	20.00	2.50	22.00	1.50	17.25	6.50	18.75	6.50	32.00	5.75	21.00	5.50	19.00	7.00	23.50	10.00
	24.50	3.50	19.75	4.50	12.00	6.00	26.25	7.00	32.50	5.00	26.25	4.25	20.50	9.50	19.50	7.50
	42.50	8.25	27.00	5.00	17.25	6.50	20.25	4.75	16.50	4.00	20.00	3.75	13.00	7.00	30.00	8.00
	46.75	9.00	27.00	5.50	31.00	8.50	17.00	4.50	20.25	4.75	36.00	5.00	16.25	8.50	22.50	7.25
	19.75	2.75	27.00	7.00	22.25	6.50	22.00	4.00	36.50	5.00	25.25	5.00	20.50	9.50	27.50	8.25
	31.50	7.00	24.00	2.50	23.25	7.00	12.00	3.50	27.50	5.50	20.00	4.50	11.50	7.50	39.75	9.00
	22.00	8.00	36.00	7.00	15.50	5.50	22.75	3.75	24.00	4.00	19.75	4.25	34.00	10.25	33.00	7.50
	25.00	8.25	32.00	8.25	20.50	6.75	29.25	7.00	18.50	4.50	36.00	6.00	17.75	8.50	28.00	9.50
	18.50	4.00	20.00	1.50	21.50	7.25	17.50	3.25	20.00	6.00	20.00	5.75	17.75	6.00	24.00	8.50
Total	432.50	97.25	407.25	82.00	305.75	93.50	321.25	74.00	330.25	71.50	388.00	74.75	300.00	124.75	445.25	129.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	46.75	721.87	9.00	45.00	31.00	478.47	8.50	42.50	36.00	555.65	6.00	60.00	39.75	613.52	10.25	51.25
Lowest	18.50	285.54	1.50	7.50	12.00	185.22	2.00	10.00	13.00	200.65	3.75	37.50	11.50	177.50	6.00	30.00
Average.....	27.09	532.01	5.97	29.85	20.90	322.58	5.58	27.90	23.87	368.42	4.87	48.70	24.84	383.40	8.46	42.30
Tests above average.....	14		18		13		17		13		17		14		17	
Tests below average.....	16		12		17		13		17		13		16		13	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

OXFORD.

Catalogue number of samples	66. SIDE.				66. SIDE.				66. SIDE.				66. SIDE.			
Length of fiber tested	3 centimeters.				4 centimeters.				5 centimeters.				6 centimeters.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	31.60	12.50	22.00	10.25	23.50	15.00	30.00	16.50	27.00	20.00	30.25	13.75	21.00	21.00	26.75	23.75
	17.00	10.00	24.00	10.00	17.00	13.25	26.00	18.50	21.50	14.25	35.00	19.00	32.00	25.00	22.25	17.50
	24.25	12.50	23.00	11.00	22.00	14.25	17.50	16.75	40.00	22.75	20.50	18.50	19.00	20.00	14.00	11.50
	24.50	12.25	31.50	12.25	18.25	17.25	26.00	14.75	19.00	17.00	20.50	14.50	20.00	25.00	24.00	20.00
	16.00	9.00	30.50	12.50	16.50	9.50	22.00	13.25	33.75	16.50	36.00	17.25	15.00	14.75	17.00	13.50
	25.50	13.00	24.75	13.50	37.00	17.50	21.00	16.00	25.25	17.00	20.00	10.25	16.00	14.00	14.00	18.50
	17.50	11.00	22.00	8.00	24.75	14.00	23.25	15.75	17.00	16.00	29.25	18.50	24.00	21.50	17.50	12.00
	15.00	11.75	19.00	10.25	19.50	12.00	24.00	18.00	22.00	17.75	27.00	17.25	23.00	25.50	18.00	21.25
	18.00	13.00	23.00	12.00	20.00	7.00	12.00	9.25	18.50	12.00	25.00	17.00	14.00	19.75	23.00	14.00
	22.00	12.50	16.00	11.00	13.00	11.75	20.50	15.25	17.75	16.00	31.00	18.00	16.00	12.00	20.75	21.50
	15.00	12.00	18.00	10.50	32.00	17.25	21.75	12.50	22.50	20.00	26.00	17.75	20.55	17.00	30.00	19.75
	22.00	5.00	23.00	12.00	31.25	15.00	15.00	15.25	32.50	19.25	27.00	18.00	31.00	21.50	26.00	18.50
	15.00	11.50	18.00	11.25	35.00	14.50	13.00	12.50	36.00	21.00	19.00	14.00	27.00	22.00	19.00	18.50
	30.75	15.00	22.50	11.00	24.75	14.50	18.00	15.50	27.00	16.75	25.25	19.50	19.00	21.00	18.00	11.00
	25.25	11.00	31.00	11.75	24.00	17.00	26.00	14.75	26.00	17.00	33.00	19.00	21.25	15.00	21.00	16.00
Total	327.75	172.00	348.25	167.25	359.50	209.75	316.00	224.50	385.75	263.25	404.75	252.25	327.75	295.00	321.25	256.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	30.75	613.52	13.50	45.00	37.00	571.08	18.50	46.25	40.00	617.38	22.75	45.50	32.00	493.91	25.50	42.50
Lowest	15.00	231.52	5.00	16.67	12.00	185.22	7.00	17.50	17.00	262.39	10.25	20.50	14.00	216.08	11.00	18.33
Average	22.53	347.74	11.30	37.67	22.51	347.43	14.47	36.18	26.35	406.70	17.28	34.56	21.63	333.85	18.52	30.86
Tests above average	15		16		15		19		13		14		12		17	
Tests below average	15		14		15		11		17		16		18		13	

OXFORD.

Catalogue number of samples	66. HIP.				67. SHOULDER.				67. SIDE.				67. HIP.			
Length of fiber tested	——				——				——				——			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	20.75	3.00	25.00	4.00	49.75	7.25	34.00	5.25	44.25	6.50	31.00	7.50	37.00	6.25	49.00	8.25
	20.00	2.25	24.00	6.50	34.75	5.75	33.50	7.75	28.50	8.00	40.00	8.50	48.00	7.00	33.00	6.00
	20.75	3.00	31.00	6.00	38.75	6.00	41.00	6.00	41.00	6.50	44.00	8.50	38.00	7.00	33.75	7.00
	35.50	8.00	29.75	6.00	38.75	6.25	40.50	4.00	40.00	7.50	43.50	9.00	36.75	7.00	59.00	7.00
	38.00	7.50	34.50	6.25	31.50	7.00	51.00	8.50	25.50	7.50	54.00	10.00	36.25	6.50	38.00	7.75
	34.00	7.00	30.50	6.50	33.25	5.75	40.00	7.25	47.50	7.50	54.00	7.50	46.50	8.25	25.25	5.25
	32.00	8.25	25.00	6.00	44.50	5.25	39.50	6.50	47.00	8.50	47.00	8.00	21.00	2.00	20.50	4.75
	25.00	8.00	23.25	6.25	40.75	7.00	48.75	7.00	51.00	8.00	35.00	8.50	43.75	7.00	43.00	7.00
	20.00	7.00	28.00	6.25	30.75	4.50	34.00	6.25	32.00	7.50	42.00	8.25	26.50	7.00	53.00	7.00
	28.00	5.25	24.25	7.00	41.25	4.25	48.00	7.25	39.00	7.50	31.00	5.50	43.00	7.00	47.00	7.25
	32.00	6.50	21.50	6.75	40.25	4.25	39.50	6.50	51.00	8.00	46.50	7.00	41.00	6.25	33.00	7.50
	24.00	7.00	21.75	6.00	37.00	4.75	44.00	6.75	29.00	5.25	49.00	7.50	32.00	2.25	33.00	7.00
	23.00	7.00	19.25	3.00	36.50	4.25	42.00	8.00	51.00	9.00	28.00	8.00	27.50	5.25	40.50	2.75
	23.00	7.00	23.75	7.00	31.25	5.25	37.50	7.00	49.00	8.50	32.50	9.00	36.00	5.25	31.50	7.00
	23.00	7.00	35.50	9.00	47.00	6.75	49.50	6.75	49.00	7.75	38.00	7.50	43.00	7.00	34.50	7.00
Total	399.00	93.75	397.00	92.50	576.00	84.25	622.75	100.75	630.75	113.50	615.50	130.25	556.25	91.00	574.00	98.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	38.00	586.52	9.00	45.00	51.00	787.17	8.50	42.50	57.00	879.77	10.00	50.00	59.00	910.64	8.25	41.25
Lowest	19.25	297.12	2.25	11.25	30.75	474.61	4.00	20.00	25.50	393.50	5.50	27.50	20.50	316.41	2.60	10.00
Average	26.53	409.48	6.20	31.00	39.96	616.77	6.17	30.85	41.54	641.15	8.11	40.50	37.67	581.42	6.31	31.55
Tests above average	12		20		15		17		15		10		14		[illegible]	
Tests below average	18		10		15		13		15		20		16		10	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

	MERINO.															
Catalogue number of samples..	30. NECK, TOP OF WRINKLE.				30. NECK, BETWEEN WRINKLE.				30. SHOULDER.				30. SIDE.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	10.50	5.25	12.75	6.00	7.25	4.25	9.25	7.00	5.50	3.75	12.25	5.50	6.00	5.75	9.00	4.25
	9.25	6.25	13.00	4.75	10.75	5.00	8.00	3.75	6.00	5.25	6.75	7.00	8.00	3.00	6.75	2.75
	12.00	5.75	14.25	6.25	11.00	4.25	8.00	5.00	5.25	6.00	6.00	6.00	10.00	5.00	9.25	6.25
	12.00	5.75	13.75	5.75	7.75	7.00	9.50	5.25	11.75	7.75	6.75	5.50	11.00	6.00	9.00	4.00
	13.00	5.00	15.75	6.75	9.75	5.25	8.25	5.25	6.50	5.00	7.00	5.00	13.00	5.00	8.00	4.25
	14.75	6.00	12.25	5.75	6.75	3.75	9.75	6.75	8.25	5.00	8.50	5.25	11.25	4.00	7.25	5.25
	16.00	3.25	16.25	7.75	10.00	4.00	9.50	4.50	7.75	5.75	9.00	6.00	7.50	2.25	12.75	6.50
	16.50	5.75	13.00	6.00	7.00	5.75	8.00	4.00	10.00	5.25	10.25	7.00	8.00	5.00	7.00	4.75
	12.25	4.25	12.00	4.25	11.00	8.75	9.75	4.25	5.50	3.75	8.00	7.00	9.75	6.00	6.00	4.00
	9.25	3.50	18.25	3.75	7.00	5.50	8.00	4.75	10.00	5.00	8.50	7.25	14.00	6.75	9.75	7.00
	9.00	3.00	10.00	5.75	8.25	7.75	10.75	6.50	13.75	8.25	11.50	4.50	8.00	6.00	14.00	7.00
	14.00	6.00	16.00	6.25	10.75	5.75	11.00	7.75	11.25	5.25	12.50	5.75	10.25	6.25	12.00	8.75
	16.50	6.25	14.00	4.00	8.00	6.25	8.00	6.00	7.00	4.25	6.00	5.00	9.00	3.50	7.00	4.25
	20.00	6.50	12.50	3.50	11.25	3.25	11.50	4.75	7.25	6.25	11.50	7.50	6.75	7.75	9.25	6.50
	9.75	8.25	15.75	6.50	9.75	5.00	12.25	7.25	10.00	7.50	5.75	3.25	8.00	8.00	10.75	9.00
Total	201.75	79.75	206.50	88.00	136.75	81.50	138.50	82.75	125.75	85.00	128.25	87.50	138.50	83.25	137.25	81.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	20.00	308.69	8.25	41.25	12.25	189.07	8.75	43.75	13.75	212.21	8.25	41.25	14.00	216.08	8.75	43.75
Lowest	9.00	138.91	2.50	12.50	6.50	100.23	3.25	16.25	5.50	84.89	3.25	16.25	6.00	92.61	2.25	11.25
Average	13.61	210.07	5.43	27.15	9.18	141.69	5.48	27.40	8.47	130.73	5.75	28.75	9.19	141.84	5.49	27.45
Tests above average	15		19		16		13		14		13		14		16	
Tests below average	15		11		14		17		16		15		16		14	

	MERINO.															
Catalogue number of samples..	30. HIP.				41. NECK.				41. SIDE.				41. HIP.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	10.50	5.00	7.00	7.00	4.25	6.00	3.5	2.25	6.00	5.00	8.00	2.50	8.00	7.00	5.50	7.00
	8.75	4.75	7.00	5.00	6.25	5.00	4.00	7.00	8.25	6.25	8.50	7.50	6.00	6.00	10.00	5.00
	9.00	5.25	11.00	6.75	10.00	7.25	5.75	3.00	5.5	6.00	5.00	5.50	7.25	7.00	7.00	4.75
	11.50	5.00	10.00	6.00	6.25	5.00	6.25	4.00	9.75	5.75	6.00	6.25	8.75	5.00	6.75	5.00
	8.75	4.25	5.75	5.75	4.00	2.00	3.25	3.25	7.00	7.25	7.00	6.00	7.25	7.00	6.25	4.00
	9.25	7.25	9.00	5.25	4.00	0.00	4.00	4.00	6.25	5.00	3.75	1.75	6.00	5.00	0.50	0.25
	7.00	4.25	9.00	5.00	8.75	3.50	4.00	2.75	5.50	2.50	5.75	8.00	5.00	6.25	4.25	5.50
	12.25	6.25	8.00	5.00	3.75	3.75	7.5	0.00	4.00	4.50	12.00	5.00	7.00	4.50	0.25	2.00
	9.50	6.75	6.75	6.00	4.00	3.00	4.75	2.00	6.50	7.00	5.25	3.00	7.00	0.50	8.00	7.00
	7.00	3.75	7.75	5.25	3.75	3.75	0.25	5.25	7.50	8.75	5.00	2.50	6.75	7.00	10.50	6.00
	9.75	4.50	11.00	6.25	5.50	4.25	4.5	5.25	5.00	7.50	8.75	7.50	8.00	0.50	8.00	4.75
	7.25	8.25	12.00	5.75	4.50	3.00	4.75	2.00	10.00	8.00	6.75	9.25	7.00	6.75	0.50	8.00
	6.00	5.00	11.00	4.00	3.75	3.25	4.25	4.25	7.50	5.00	10.00	7.00	8.50	6.50	0.50	7.00
	10.00	6.75	8.75	2.75	4.25	3.00	5.00	3.00	5.50	7.00	5.75	7.00	7.00	8.00	8.00	8.75
	7.25	6.25	6.00	6.50	7.25	4.75	7.00	4.3	5.75	5.25	11.00	7.50	8.00	8.00	6.00	8.00
Total	132.75	86.25	130.00	84.25	75.25	65.00	74.75	63.50	100.00	95.75	76.5	91.75	107.5	100.00	112.00	98.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	12.25	189.07	8.25	41.25	10.00	154.35	8.00	40.00	12.00	185.22	8.75	43.75	10.50	162.06	8.75	43.75
Lowest	5.75	88.75	2.75	13.75	3.25	50.16	2.00	10.00	3.75	57.88	1.75	8.75	4.25	65.60	4.00	20.00
Average	8.76	135.21	5.68	28.40	5.00	77.17	4.28	21.40	5.88	90.76	6.25	31.25	7.31	112.83	6.60	33.00
Tests above average	18		16		19		18		18		16		12		18	
Tests below average	12		14		19		18		12		11		18		14	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

Catalogue number of samples.	MERINO.															
	45. NECK, TOP OF WRINKLE.				45. NECK, BETWEEN WRINKLE.				45. SIDE.				45. HIP.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	8.00	5.25	13.00	7.25	15.50	6.75	7.75	7.25	7.75	6.25	7.00	2.75	15.50	7.50	9.50	6.50
	7.00	6.75	10.25	6.00	6.75	5.00	5.50	6.25	6.25	4.75	8.75	3.50	10.00	7.50	8.00	2.50
	7.50	4.50	5.00	5.00	11.50	3.00	4.50	3.75	6.50	4.25	9.75	4.00	5.50	0.50	14.00	4.00
	4.00	3.50	6.00	3.75	8.00	6.00	10.25	5.00	8.00	8.50	7.50	5.25	15.00	4.00	9.75	4.00
	6.50	5.00	7.00	5.25	6.75	6.25	6.25	6.75	11.00	7.50	11.25	8.00	16.00	6.00	10.00	3.50
	4.75	3.75	5.00	5.75	11.75	3.50	7.00	7.00	7.50	7.75	5.75	5.00	10.75	1.00	9.00	4.50
	6.00	5.25	9.25	7.25	4.50	5.75	4.25	5.00	7.00	9.00	8.00	6.25	8.75	1.50	11.00	2.50
	15.00	7.75	9.50	7.00	4.25	2.25	4.25	6.50	7.00	8.75	8.00	9.00	7.00	2.00	12.50	3.50
	6.25	7.00	4.25	4.75	4.25	1.50	11.00	5.00	6.50	8.75	14.00	9.00	14.00	3.00	20.00	8.00
	6.75	7.75	6.00	4.00	6.75	4.75	7.25	6.25	12.00	7.00	7.00	4.50	10.00	2.00	10.50	2.00
	12.00	3.25	7.50	4.50	5.25	6.25	13.50	2.75	6.75	5.00	6.00	6.25	19.00	4.00	12.50	5.00
	6.25	3.75	8.25	5.25	11.50	3.75	6.00	4.25	8.00	8.50	11.00	7.00	13.00	2.00	18.50	7.50
	8.00	8.00	7.00	3.25	5.50	5.00	5.75	4.25	11.00	7.25	6.75	4.25	19.00	7.50	15.00	7.00
	11.25	6.75	14.75	7.5	5.75	4.00	11.25	4.50	14.00	8.00	9.00	5.25	7.25	4.00	8.75	7.00
	7.00	7.50	10.25	5.00	15.00	7.75	14.50	5.00	7.50	7.50	7.50	4.00	23.00	3.00	11.00	3.50
Total	116.25	85.75	123.00	81.50	123.00	71.50	118.50	79.50	126.75	108.75	127.25	91.00	193.75	55.50	180.00	71.00

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	15.00	231.52	8.00	40.00	15.50	239.24	7.75	38.75	14.00	216.08	9.00	45.00	20.00	308.69	8.00	40.00
Lowest	4.00	61.74	3.25	16.25	4.25	65.60	1.50	7.50	5.75	88.75	4.00	20.00	5.50	84.89	0.5	2.50
Average	7.98	123.17	5.58	57.90	8.05	124.25	5.03	25.15	8.46	130.58	6.65	33.25	12.45	192.16	4.21	21.05
Tests above average	12		13		11		12		10		11		14		11	
Tests below average	11		17		20		18		20		11		10		11	

Catalogue number of samples.	MERINO.															
	46. SHOULDER.				46. SIDE.				46. HIP.				47. SHOULDER.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	4.25	6.00	6.00	6.25	4.00	3.00	10.00	7.00	12.50	3.00	11.00	7.00	6.50	7.50	5.25	4.75
	7.00	3.75	5.50	6.75	11.50	9.00	6.50	7.00	6.25	3.00	9.00	3.50	5.50	7.25	5.50	1.50
	8.75	6.25	5.25	5.25	4.75	6.75	6.00	4.75	10.75	5.00	11.25	8.00	5.00	4.50	12.00	7.00
	3.75	5.00	6.00	2.00	5.00	4.25	14.00	9.00	12.00	2.00	5.50	4.50	6.25	6.00	6.00	5.25
	6.75	6.25	4.50	5.75	11.75	9.25	6.25	6.00	11.75	3.00	11.50	5.00	9.00	2.00	11.00	5.00
	5.25	4.75	5.00	3.00	8.00	9.00	4.75	3.50	12.00	7.00	13.50	5.00	5.00	3.25	5.00	7.25
	6.25	6.50	4.50	7.50	9.00	2.00	4.50	8.50	10.00	3.50	6.00	2.00	5.25	4.75	4.50	2.00
	4.25	3.00	6.00	5.50	9.75	4.50	9.00	10.00	10.25	7.00	4.00	7.00	4.25	5.00	4.25	3.75
	4.50	1.75	4.00	4.00	5.00	4.75	4.75	9.00	10.25	6.00	5.50	6.25	6.50	2.00	4.00	4.25
	5.00	1.50	6.90	7.50	8.75	2.50	12.25	7.50	10.50	6.50	11.50	8.00	12.50	6.25	8.00	4.75
	7.50	6.50	4.00	5.25	6.00	7.25	5.50	7.00	9.25	5.00	11.50	4.50	5.25	4.25	5.00	4.75
	9.50	8.00	6.00	5.75	5.00	1.50	5.50	3.50	8.00	7.50	10.50	7.00	4.00	3.50	4.25	3.50
	3.50	7.00	6.00	6.75	6.25	6.25	7.00	2.50	6.00	3.00	10.50	3.00	8.00	4.75	5.00	3.50
	7.00	7.00	4.50	2.00	6.50	8.00	6.00	6.25	11.00	5.25	5.0	4.00	7.50	7.00	5.00	6.00
	6.00	7.25	3.50	1.50	6.50	8.25	10.75	8.75	11.25	5.25	8.25	5.50	4.50	5.00	6.00	4.75
Total	89.25	80.50	76.75	75.00	107.75	86.25	112.75	100.25	151.75	72.00	135.00	80.25	95.00	66.25	90.75	68.00

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	9.50	146.63	8.00	40.00	14.00	216.08	10.00	50.00	13.50	208.37	8.00	40.00	12.50	192.93	7.25	36.25
Lowest	3.50	54.02	1.50	7.50	4.00	61.74	1.50	7.50	4.00	61.74	2.00	10.00	4.00	61.74	0.75	3.75
Average	5.53	85.35	5.17	25.85	6.35	113.44	6.21	31.05	9.55	147.40	5.07	25.35	6.19	95.54	4.48	22.40
Tests above average	15		19		11		18		19		14		10		11	
Tests below average	15		11		19		12		11		16		20		12	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

Catalogue number of samples..	MERINO.															
	47. SIDE.				47. HIP.				48. SHOULDER, TOP OF WRINKLE.				48. SHOULDER, BETWEEN WRINKLE.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	7.50	6.25	7.00	6.00	12.00	2.00	19.00	4.00	12.00	5.00	18.00	7.00	13.00	5.25	5.25	2.75
	10.50	8.25	11.00	6.25	14.50	4.00	13.00	4.75	12.75	5.00	5.00	2.00	5.25	5.75	11.25	5.50
	8.00	8.00	5.50	6.00	18.50	7.00	12.75	6.00	9.75	5.00	8.50	5.00	4.75	5.00	10.75	6.00
	7.00	6.00	6.00	8.25	17.50	2.00	9.00	4.00	9.75	7.00	7.00	6.00	5.25	7.75	10.25	7.50
	13.75	8.00	6.75	8.25	23.50	6.75	17.00	5.00	6.50	7.25	5.25	4.75	9.00	7.75	5.25	5.00
	7.00	3.25	7.50	8.25	14.25	4.25	5.75	3.00	5.75	6.00	11.00	8.25	5.00	6.75	6.00	6.50
	8.00	8.00	8.00	9.25	11.00	4.75	8.50	6.50	7.50	2.75	12.25	7.50	6.50	4.75	12.25	7.50
	9.50	8.50	4.00	3.25	24.00	4.75	27.00	5.00	6.25	6.25	6.50	3.00	9.50	7.00	7.00	5.50
	6.75	5.25	9.00	5.25	15.00	6.00	10.00	4.00	13.00	3.50	4.00	2.25	13.00	8.00	7.75	8.00
	10.50	5.00	5.00	3.50	13.75	3.00	22.50	3.50	8.75	4.25	9.25	2.50	4.25	4.25	4.50	6.00
	8.50	8.00	6.00	3.00	7.00	3.50	12.25	8.00	3.75	4.00	13.50	7.00	6.00	5.25	7.00	4.00
	5.00	3.00	6.00	3.75	12.75	2.00	4.75	2.00	7.00	6.75	3.50	6.00	4.00	4.00	9.50	7.25
	7.00	4.50	5.00	3.75	11.00	3.00	5.00	6.00	3.50	2.00	6.50	7.00	7.25	8.25	8.50	8.25
	8.75	6.25	7.00	7.75	5.00	6.00	6.00	5.00	4.25	2.25	10.50	7.75	11.00	5.25	5.75	8.50
	9.25	7.25	11.00	8.50	10.00	2.75	8.50	4.50	15.75	7.00	7.50	5.00	4.00	5.00	13.25	8.25
Total	127.00	98.50	103.75	96.00	312.75	61.75	184.00	77.25	123.25	75.00	125.25	84.00	110.25	96.00	124.50	94.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	13.75	212.23	9.25	46.25	27.00	416.73	8.00	40.00	15.75	243.09	8.25	41.25	13.25	204.51	8.25	41.25
Lowest	4.00	61.74	3.00	15.00	4.75	73.31	2.00	10.00	3.50	54.02	2.00	10.00	4.00	61.74	2.75	13.75
Average	7.72	119.15	6.48	32.40	13.22	204.05	4.63	23.15	8.28	127.80	5.30	26.50	7.83	120.78	6.35	31.75
Tests above average	13		15		13		14		13		15		12		16	
Tests below average	17		15		18		18		17		14		18		14	

Catalogue number of samples..	MERINO.															
	48. SIDE.				48. HIP.				51. SHOULDER.				51. SIDE.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	5.00	3.00	8.50	4.00	5.25	3.00	9.00	4.00	4.00	6.25	6.50	7.75	8.00	8.25	5.75	3.50
	10.25	5.75	12.50	7.00	9.50	1.25	5.00	3.00	10.75	5.75	5.25	5.00	6.00	3.00	6.75	6.00
	12.00	8.00	9.75	6.50	15.00	5.00	12.00	4.00	7.75	6.50	7.00	6.75	4.75	3.00	5.25	4.25
	15.75	7.50	13.50	7.50	20.00	7.00	21.75	7.00	8.50	7.50	10.50	7.50	10.00	7.00	4.00	4.25
	5.00	4.50	7.00	8.00	23.00	5.25	19.00	4.00	11.75	7.50	4.00	4.50	6.50	7.50	4.50	5.50
	4.00	5.75	10.50	6.50	10.25	2.00	9.75	1.00	7.00	3.25	5.00	11.00	12.00	7.25	5.75	5.50
	4.00	3.00	6.00	8.25	12.00	5.25	11.50	3.25	22.00	5.50	6.50	7.75	9.50	6.50	8.50	5.50
	12.00	8.50	7.50	8.25	6.00	3.50	17.00	2.50	16.50	10.75	11.75	8.00	4.00	5.50	7.50	6.00
	5.00	3.50	6.25	7.00	13.75	2.00	16.50	3.00	7.25	8.00	17.00	9.00	8.75	7.00	6.50	5.50
	7.00	3.00	15.00	7.00	6.00	6.00	7.50	5.00	6.00	5.00	10.50	4.00	4.00	7.00	7.00	4.00
	7.00	9.00	5.75	6.50	23.00	5.25	6.00	4.75	10.00	5.00	22.00	8.00	13.00	7.50	6.50	7.50
	7.00	9.75	9.00	8.75	12.50	5.00	7.50	5.00	14.00	8.50	10.00	6.25	10.25	7.50	5.75	6.50
	9.75	7.25	4.00	3.75	23.50	5.00	7.50	3.00	7.25	8.75	8.00	8.25	6.50	8.50	4.00	5.00
	13.00	7.25	9.00	8.00	5.50	5.00	4.50	5.00	7.25	7.50	6.50	7.50	8.50	5.50	6.50	8.00
	6.00	8.25	5.00	9.25	6.50	5.00	7.25	5.00	7.50	6.50	5.25	5.00	7.00	3.50	9.50	6.50
Total	123.75	94.50	129.25	92.00	191.75	68.00	161.75	64.50	145.50	100.25	133.75	101.25	115.75	92.50	93.75	83.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	15.75	243.09	9.75	48.75	23.50	362.71	8.25	41.25	22.00	339.56	10.75	53.75	12.00	185.21	8.25	41.25
Lowest	4.00	61.74	3.00	15.00	4.50	69.46	1.00	5.00	4.00	61.74	3.25	16.25	4.00	61.74	3.00	15.00
Average	8.43	130.11	6.41	32.05	11.78	181.82	4.41	22.05	9.31	143.70	6.72	33.60	6.98	107.73	5.53	27.65
Tests above average	14		19		13		17		12		15		13		16	
Tests below average	16		11		17		13		18		15		17		14	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

Catalogue number of samples	MERINO. 51. HIP.				52. SHOULDER.				52. SIDE.				52. HIP.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	12.50	2.50	4.25	4.00	3.50	8.50	3.25	6.50	3.50	8.00	4.00	4.00	4.50	3.00	3.00	5.00
	6.50	5.00	8.25	5.25	3.50	5.50	3.25	9.00	5.75	4.50	5.00	8.50	4.25	6.00	6.75	1.50
	8.25	1.00	10.50	8.00	3.50	6.50	3.75	4.00	3.50	6.50	4.25	8.25	3.75	1.50	11.00	5.50
	11.75	7.00	6.50	7.25	3.25	7.75	3.25	6.25	3.00	5.00	4.75	8.00	3.25	4.00	9.00	7.00
	26.50	6.50	8.50	8.00	5.25	6.75	3.25	8.25	5.50	8.00	3.25	8.00	7.00	3.00	6.00	3.25
	16.50	6.00	7.00	6.50	3.50	7.50	5.25	6.50	5.00	8.25	5.25	4.00	4.00	1.00	3.50	1.50
	23.00	5.50	12.00	2.00	2.50	7.00	2.50	8.25	4.00	8.50	4.00	8.00	4.75	4.75	4.00	5.00
	20.50	6.00	5.50	3.00	4.25	5.00	3.00	5.00	4.00	7.25	4.25	7.50	4.50	5.00	8.50	7.00
	4.75	5.00	11.25	2.00	3.50	7.00	5.00	6.75	6.00	9.00	3.00	5.50	2.75	2.00	4.75	5.25
	4.50	3.50	14.00	3.00	3.00	5.50	4.00	8.00	3.00	3.50	7.50	8.50	2.50	3.00	3.00	2.00
	17.50	4.00	19.00	4.50	4.25	8.50	3.75	6.50	4.00	4.50	4.50	9.00	8.50	4.00	3.50	3.00
	10.50	5.00	8.50	4.00	5.00	6.25	3.00	6.25	3.75	6.50	5.00	6.00	4.00	4.75	4.50	6.00
	4.75	5.00	9.75	6.00	3.25	6.00	2.50	8.25	6.75	7.25	3.25	7.00	4.25	5.75	4.75	6.00
	8.00	5.25	6.00	4.00	2.50	3.50	3.50	6.50	6.00	7.00	3.50	7.50	4.25	3.50	5.50	6.00
	7.50	6.50	7.25	7.50	2.00	8.00	2.50	5.50	5.25	7.00	5.50	6.00	4.25	7.00	3.50	5.50
Total	183.00	73.75	138.25	75.00	52.75	99.25	51.75	101.50	69.00	101.25	67.00	105.75	66.50	58.75	81.25	69.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	26.50	409.02	8.00	40.00	5.25	81.03	8.50	42.50	7.50	115.76	9.00	45.00	11.00	169.78	7.00	35.00
Lowest	4.25	65.60	1.00	5.00	2.00	30.87	3.50	17.50	3.00	46.30	3.00	15.00	2.50	38.59	1.00	5.00
Average	10.70	165.15	4.95	24.75	3.48	54.71	6.69	33.45	4.53	69.92	6.90	34.50	4.92	75.94	4.27	21.35
Tests above average	11		18		15		14		12		19		8		17	
Tests below average	19		12		15		15		18		11		22		13	

Catalogue number of samples	MERINO. 53. SHOULDER.				53. SHOULDER, TOP OF WRINKLE.				53. SHOULDER, BETWEEN WRINKLE.				53. SIDE.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	3.50	7.50	3.00	7.00	7.00	6.00	13.00	6.75	3.25	4.75	7.25	5.00	4.50	6.00	3.00	6.00
	2.00	6.50	3.00	8.75	6.50	3.25	10.00	5.00	8.50	5.50	5.00	4.25	5.25	6.00	4.25	3.75
	2.50	5.25	3.00	7.50	10.50	5.25	7.25	5.50	4.75	4.00	6.25	0.00	3.00	2.00	6.00	7.75
	3.25	9.00	2.50	5.00	7.25	3.50	11.25	6.50	6.00	6.00	7.00	3.50	3.00	4.00	5.00	5.50
	2.25	5.00	3.25	7.50	6.50	4.50	7.50	5.50	6.50	5.00	5.50	3.00	2.75	2.50	3.00	2.50
	4.00	5.75	3.50	7.00	7.50	5.00	10.00	3.25	6.00	7.00	4.00	3.25	6.25	8.50	4.75	6.25
	3.25	7.00	3.00	5.25	8.75	0.25	10.00	6.75	5.00	6.50	3.75	3.75	4.50	5.50	5.00	4.00
	2.50	8.75	2.50	5.75	7.00	4.75	12.75	5.50	5.50	5.00	5.00	5.75	5.00	5.50	4.50	8.50
	3.00	7.25	4.00	4.00	25.00	7.00	11.25	6.25	6.25	2.00	6.00	3.25	8.00	7.25	3.00	1.50
	3.00	4.75	3.50	6.00	7.00	4.00	9.00	6.00	7.00	5.50	3.50	3.00	5.00	6.00	3.50	4.50
	3.50	7.50	5.00	5.00	9.00	5.00	9.00	7.00	5.50	5.50	6.00	5.00	5.00	6.50	4.50	5.75
	3.25	6.50	5.00	5.25	15.25	6.00	10.25	5.50	7.25	5.50	6.00	7.00	3.50	6.00	6.00	7.00
	2.50	5.25	5.50	4.00	15.50	6.50	11.50	5.75	8.50	7.75	7.00	3.75	5.00	8.50	5.00	8.75
	2.25	6.50	4.25	6.50	10.25	3.50	12.00	3.50	6.50	6.00	6.25	4.75	4.25	8.50	4.00	6.25
	2.50	6.25	4.50	6.25	13.50	5.75	9.00	7.50	4.25	4.75	4.50	3.00	4.00	5.00	4.00	7.00
Total	43.25	98.75	55.50	90.75	156.50	77.25	159.75	88.25	90.75	80.75	82.00	64.25	69.00	87.75	65.50	85.00

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	5.50	84.89	9.00	45.00	25.00	385.86	7.50	37.50	8.50	131.19	7.75	38.75	8.00	123.48	8.50	42.50
Lowest	2.00	30.87	4.00	20.00	6.50	100.32	3.25	16.25	3.25	50.16	2.00	10.00	3.00	46.30	1.50	7.50
Average	3.29	50.78	6.82	31.60	10.54	162.68	5.45	27.25	5.76	88.90	4.83	24.15	4.48	69.14	5.75	28.75
Tests above average	11		15		10		19		16		14		17		17	
Tests below average	19		15		20		11		14		16		13		12	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

MERINO.

Catalogue number of samples..	53. HIP.				53. HIP, TOP OF WRINKLE.				53. HIP, BETWEEN WRINKLE.				54. SHOULDER, TOP OF WRINKLE.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	7.75	4.00	2.00	4.00	25.50	5.00			6.25	2.50	2.50	4.00	18.00	7.50	15.00	7.75
	[illegible]	3.00	[illegible]	[illegible]	23.00	[illegible]			4.00	5.00	4.50	1.50	10.50	4.00	9.00	2.00
	4.00	1.50	2.75	5.25	25.00	5.50			3.25	2.00	[illegible]	[illegible]	8.25	2.25	4.00	2.75
	4.00	1.00	4.50	4.00	28.00	7.00			5.25	0.75	8.50	7.50	12.50	[illegible]	[illegible]	[illegible]
	4.75	[illegible]	[illegible]	[illegible]	19.00	6.50			4.50	[illegible]	7.50	7.75	5.00	2.50	9.00	2.50
	4.00	2.00	5.00	[illegible]	14.00	3.50			4.50	3.00	7.25	4.00	[illegible]	3.50	13.00	[illegible]
	5.00	0.00	[illegible]	1.00	15.00	[illegible]			[illegible]	0.50	3.00	3.00	5.25	1.75	11.75	4.25
	4.50	7.00	2.00	5.00	14.50	5.00			0.50	4.00	4.50	4.00	9.25	1.00	15.50	4.75
	4.00	5.00	4.50	5.00	32.50	6.50			5.50	[illegible]	8.5	5.25	[illegible]	3.00	29.00	8.50
	[illegible]	5.25	7.75	[illegible]	17.50	3.00			7.00	4.00	6.75	4.75	10.00	[illegible]	9.75	[illegible]
	7.50	0.50	5.50	[illegible]	7.75	2.00			6.50	[illegible]	5.25	5.00	[illegible]	3.00	18.50	6.00
	7.00	4.75	3.00	4.00	11.00	5.50			[illegible]	5.00	5.50	3.00	20.00	4.00	4.25	3.50
	4.75	2.50	[illegible]	5.00	8.25	4.00			6.25	7.00	5.50	5.00	10.25	3.00	8.50	3.50
	6.00	2.00	4.50	6.00	14.75	5.00			9.00	6.00	3.25	4.75	12.25	[illegible]	6.00	6.50
	5.50	2.00	5.75	5.00	[illegible]	3.50			9.50	6.00	3.75	5.00	7.5	2.00	[illegible]	2.50
Total	84.25	58.00	60.00	[illegible]	270.75	76.00			86.50	68.00	[illegible]	70.50	153.75	53.00	165.25	62.75

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	8.00	123.46	7.00	35.00	[illegible]	501.62	[illegible]	40.00	9.50	146.63	7.75	38.75	29.00	447.60	8.50	42.50
Lowest	2.00	30.87	1.00	5.00	7.75	119.62	2.00	10.00	2.50	38.59	1.50	7.50	4.00	[illegible]	1.00	5.00
Average	4.89	74.08	4.14	20.70	18.05	278.59	5.06	25.30	5.62	86.74	4.61	23.05	10.63	164.07	3.86	19.30
Tests above average	12		15		6		7		14		17		13		11	
Tests below average	18		15		9		8		16		13		17		19	

MERINO.

Catalogue number of samples..	54. SHOULDER, BETWEEN WRINKLE.				54. HIP, TOP OF WRINKLE.				54. HIP, BETWEEN WRINKLE.				55. SHOULDER, TOP OF WRINKLE.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	6.25	8.00	6.50	4.50	12.00	2.50	9.00	[illegible]	3.75	1.50	5.00	[illegible]	14.00	[illegible]	6.75	[illegible]
	6.50	7.75	4.00	[illegible]	17.00	[illegible]	7.25	[illegible]	4.50	4.00	8.25	[illegible]	8.75	4.50	9.50	6.75
	3.00	3.50	4.50	6.25	13.75	4.50	[illegible]	[illegible]	4.50	[illegible]	6.50	4.50	7.50	[illegible]	5.25	4.0
	4.25	5.00	4.75	4.75	7.00	[illegible]	[illegible]	[illegible]	10.00	4.50	4.25	3.00	9.00	4.50	16.50	7.5
	5.00	4.75	2.75	5.25	18.00	4.00	6.00	2.00	5.00	3.00	3.50	[illegible]	10.50	4.50	9.00	6.00
	7.00	[illegible]	5.00	3.75	12.50	3.50	[illegible]	2.00	7.25	[illegible]	9.00	[illegible]	8.75	[illegible]	[illegible]	6.00
	7.25	[illegible]	7.50	[illegible]	9.00	2.00	6.00	1.50	[illegible]	5.00	8.25	2.50	9.50	[illegible]	6.50	7.00
	5.50	7.50	4.75	4.00	5.00	[illegible]	4.00	3.00	8.00	4.00	5.50	5.25	9.75	6.50	6.25	[illegible]
	6.50	7.25	5.00	[illegible]	10.75	[illegible]	20.00	5.00	7.00	2.00	3.75	4.25	14.50	6.75	13.00	7.50
	4.50	6.25	5.50	4.25	[illegible]	[illegible]	9.00	3.00	4.75	2.00	8.25	3.50	5.00	4.00	[illegible]	5.50
	3.00	3.75	[illegible]	6.75	10.25	[illegible]	[illegible]	2.00	7.75	[illegible]	7.25	5.00	6.75	4.00	5.50	4.00
	5.75	3.00	4.50	2.50	[illegible]	[illegible]	9.75	2.00	7.00	4.75	5.25	[illegible]	7.00	4.75	9.25	7.25
	5.00	1.75	5.50	4.25	10.50	1.25	17.50	3.50	4.25	3.25	4.50	[illegible]	16.50	7.75	7.50	8.00
	5.75	[illegible]	5.75	0.50	8.75	5.00	8.75	2.00	5.00	2.50	[illegible]	2.50	9.50	4.00	7.75	[illegible]
	4.75	4.25	5.75	[illegible]	19.5	[illegible]	16.00	3.00	3.75	2.25	6.00	5.50	7.75	4.00	9.00	[illegible]
Total	[illegible]	80.00	78.25	73.00	181.00	48.25	149.25	35.00	88.50	51.75	89.25	58.50	144.75	80.25	123.75	104.75

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	7.50	115.76	[illegible]	40.00	20.00	308.69	[illegible]	30.00	10.00	154.35	[illegible]	30.00	16.50	254.67	8.25	41.25
Lowest	2.75	42.44	1.75	8.75	4.00	[illegible]	1.00	5.00	3.50	54.02	1.50	7.50	5.00	77.17	4.00	20.00
Average	5.28	81.49	5.10	25.50	11.08	171.02	2.77	13.85	5.92	91.37	3.67	18.35	8.95	138.14	[illegible]	30.80
Tests above average	15		13		11		15		14		[illegible]		14		[illegible]	
Tests below average	15		17		[illegible]		15		[illegible]		14		16		18	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

MERINO.

Catalogue number of samples..	55. SHOULDER, BETWEEN WRINKLE.				55. SIDE.				55. HIP, TOP OF WRINKLE.				55. HIP, BETWEEN WRINKLE.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	4.50	6.25	4.25	4.00	3.50	2.25	4.00	2.00	2.50	2.00	3.75	4.00	8.75	9.00	5.50	3.25
	5.25	5.50	6.25	6.75	5.00	2.25	5.50	7.50	2.00	1.00	4.00	2.00	8.00	3.75	3.50	1.50
	5.00	6.50	4.50	4.50	3.00	3.00	4.00	3.00	7.75	3.25	6.00	4.00	3.75	4.00	3.00	4.75
	4.25	7.25	4.00	6.00	7.00	8.25	3.25	4.00	9.75	5.00	5.50	6.50	8.50	7.75	4.50	5.00
	5.25	5.00	7.50	7.50	10.00	7.50	11.00	9.00	4.50	6.00	6.00	6.25	3.00	1.50	6.50	7.00
	6.25	7.00	6.50	5.50	4.00	3.50	3.50	4.00	7.00	3.25	9.50	4.50	6.00	6.25	8.00	6.00
	4.00	5.00	4.00	5.00	5.75	4.00	3.00	3.50	3.75	2.00	6.50	8.50	3.75	5.00	6.00	5.50
	6.00	7.00	4.00	4.25	6.00	7.00	7.50	6.50	4.50	5.25	5.25	1.00	4.75	3.00	9.00	5.00
	7.25	7.25	6.25	6.50	3.75	2.50	7.25	7.75	3.50	3.00	4.50	1.00	7.75	5.00	3.00	2.00
	6.75	6.00	5.00	7.00	6.75	5.75	3.25	4.00	5.75	4.00	6.50	6.50	4.75	5.00	3.50	2.25
	7.50	5.50	4.50	6.00	4.25	4.00	8.00	8.25	11.50	6.25	8.00	2.25	2.75	3.00	9.00	7.00
	5.25	4.00	5.50	7.75	5.50	7.50	4.00	6.00	4.75	1.00	7.00	2.00	4.00	1.50	5.00	6.00
	4.00	4.50	5.50	6.50	6.00	9.50	4.00	7.50	5.25	2.25	5.25	7.50	3.25	4.00	5.50	7.00
	5.00	5.75	4.25	4.75	5.00	6.00	5.50	6.00	5.75	7.00	4.00	3.50	6.00	7.00	5.50	2.25
	6.25	6.50	5.75	7.00	7.50	8.50	7.50	7.50	8.00	2.50	4.25	6.00	7.00	4.75	4.25	3.00
Total	82.50	89.00	77.50	89.00	83.00	81.50	81.25	86.50	86.25	53.75	86.00	65.50	82.00	70.50	81.75	67.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	7.50	115.76	7.75	38.75	11.00	169.78	9.50	47.50	11.50	177.50	8.50	42.50	9.00	138.91	9.00	45.00
Lowest	4.00	61.74	4.0	20.00	3.00	46.30	2.00	10.00	2.00	30.87	1.00	5.00	2.75	42.44	1.50	7.50
Average	5.33	82.27	5.93	29.65	5.47	84.43	5.42	27.10	5.74	88.59	3.97	19.85	5.45	84.12	4.60	23.00
Tests above average	18		17		15		17		14		15		15		17	
Tests below average	17		13		15		13		16		15		15		18	

MERINO.

Catalogue number of samples..	56. NECK, TOP OF WRINKLE.				56. SHOULDER, BETWEEN WRINKLE.				56. SIDE.				56. HIP, TOP OF WRINKLE.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	20.00	6.75	19.00	8.00	6.50	7.50	5.50	8.25	3.75	2.00	7.25	7.25	11.25	5.00	10.00	7.00
	18.50	7.00	8.00	4.25	5.75	7.00	4.50	5.00	5.75	5.00	7.75	4.75	9.50	4.00	8.25	5.25
	15.25	7.00	14.00	4.75	7.75	8.00	4.75	6.00	7.50	6.75	3.00	3.00	7.75	5.00	3.75	2.00
	18.00	6.25	18.50	7.00	4.25	4.25	6.75	7.50	5.00	2.25	8.25	4.00	5.50	5.00	5.50	3.00
	18.75	6.25	12.25	5.00	8.00	5.25	6.50	7.25	5.25	5.25	5.25	4.00	6.50	7.00	4.25	2.00
	9.25	4.75	8.50	5.00	5.00	5.00	6.00	5.25	5.75	6.75	5.50	6.00	12.00	7.75	5.50	4.00
	15.50	7.50	12.25	7.00	3.25	4.75	5.50	7.00	5.50	5.00	5.00	5.50	9.00	2.00	12.50	8.00
	15.00	7.25	9.00	5.75	5.00	3.00	4.25	7.50	7.00	3.00	8.50	7.25	7.00	2.00	10.00	8.50
	9.75	5.50	8.00	5.00	4.50	4.75	5.50	5.00	9.50	8.00	3.50	5.25	8.00	5.00	7.25	6.75
	8.00	5.25	12.00	7.00	9.00	8.00	5.00	5.50	4.75	7.00	8.50	7.25	4.50	2.00	10.75	5.5
	11.00	5.00	15.50	7.00	6.75	7.50	3.50	3.50	3.00	2.50	8.00	8.00	10.00	7.75	8.00	6.00
	12.50	6.50	11.00	5.50	4.75	5.00	5.00	3.00	3.50	4.00	4.00	2.00	5.50	6.00	12.00	8.00
	13.00	4.75	12.00	6.75	5.50	3.75	3.50	3.50	9.00	8.00	4.50	3.50	4.50	4.00	4.75	2.00
	8.50	4.00	13.00	7.00	7.50	5.75	6.50	4.25	4.50	5.50	7.50	7.00	6.50	7.00	8.25	4.00
	14.75	4.00	18.00	7.50	4.25	6.25	6.25	3.00	7.00	4.50	5.75	5.50	5.25	7.00	9.75	5.00
Total	208.25	87.75	191.00	92.50	87.75	85.75	79.00	81.50	86.75	75.50	92.25	80.25	112.75	77.00	120.50	77.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	20.00	308.69	8.00	40.00	9.00	138.91	8.25	41.25	9.00	138.91	8.00	40.00	12.50	192.93	8.50	42.50
Lowest	8.00	123.48	4.00	20.00	3.25	50.16	3.00	15.00	3.00	46.30	2.00	10.00	3.75	57.88	2.00	10.00
Average	13.31	205.43	6.01	30.05	5.56	85.82	5.58	27.90	5.96	91.99	5.19	25.94	7.77	119.93	5.13	25.65
Tests above average	13		16		12		13		12		10		15		15	
Tests below average	17		14		18		17		18		14		15		15	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

	MERINO.															
Catalogue number of samples..	56. HIP, BETWEEN WRINKLE.				57. SHOULDER, TOP OF WRINKLE.				57. SHOULDER, BETWEEN WRINKLE.				57. HIP.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	9.00	3.50	7.00	3.75	6.25	4.25	11.75	7.25	4.50	7.75	8.00	7.00	6.00	4.50	8.50	4.00
	9.50	6.50	5.75	8.75	13.00	4.00	11.50	8.00	5.00	8.00	3.50	5.00	6.75	6.00	8.00	3.75
	12.50	6.00	7.00	6.25	8.25	3.00	6.00	4.50	5.25	4.00	4.00	5.50	11.00	6.50	13.50	7.00
	10.75	6.75	5.00	3.00	14.00	8.00	5.00	5.00	8.25	6.25	6.25	7.50	12.00	7.50	8.75	2.75
	4.75	5.00	9.50	5.00	11.00	7.00	5.00	4.25	8.50	6.50	3.50	6.00	6.25	2.75	5.75	4.00
	6.00	6.00	7.25	6.00	10.75	6.00	10.00	3.00	5.00	6.50	6.50	5.00	8.50	6.00	12.00	6.75
	6.25	4.75	6.50	3.00	20.00	8.25	20.00	8.25	4.25	9.50	5.50	5.00	2.75	6.75	8.75	7.00
	7.50	6.50	6.00	6.00	7.00	6.25	22.00	8.50	7.00	5.00	4.50	5.00	9.00	5.25	7.00	3.00
	9.25	4.50	4.50	2.50	13.00	7.00	6.25	3.00	6.00	4.00	3.50	5.50	5.00	5.00	8.75	4.50
	4.00	3.00	5.75	7.00	12.25	6.50	27.00	8.00	3.25	4.00	5.75	8.00	14.00	6.50	7.75	8.25
	6.50	6.75	12.25	8.00	7.00	4.25	8.50	7.50	3.50	6.50	4.25	6.50	8.00	5.00	7.25	6.25
	10.25	5.25	5.75	6.50	5.50	3.00	10.25	4.50	7.00	7.50	7.50	5.00	7.00	5.25	9.50	5.00
	3.75	6.00	7.00	7.25	13.00	2.25	9.00	7.50	8.25	7.00	4.50	7.00	8.50	4.25	6.00	4.00
	10.00	4.75	8.50	6.00	7.25	7.00	12.50	5.00	7.00	8.25	4.25	7.25	9.75	5.00	7.75	4.00
	8.50	5.25	3.50	3.25	14.00	6.00	12.50	3.00	6.25	5.25	6.00	6.75	10.00	5.00	6.75	4.00
Total	118.50	80.50	101.25	82.25	162.25	82.75	177.25	90.25	89.00	101.25	77.50	95.00	133.50	84.25	126.00	75.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	12.50	192.93	8.75	43.75	27.00	416.73	8.50	42.50	8.50	131.19	9.50	47.50	14.00	216.02	8.25	41.25
Lowest	3.50	54.02	2.50	12.50	5.00	77.17	2.25	11.25	3.25	50.16	4.00	20.00	5.75	88.75	2.75	13.75
Average	7.32	112.98	5.42	27.10	11.31	174.56	5.83	29.15	5.55	85.66	6.54	32.70	8.63	133.51	5.31	26.55
Tests above average.....	12		16		11		17		16		11		13		13	
Tests below average.....	18		14		19		13		14		15		17		17	

	MERINO.															
Catalogue number of samples..	58. SHOULDER, TOP OF WRINKLE.				58. SHOULDER, BETWEEN WRINKLE.				58. HIP, TOP OF WRINKLE.				58. HIP, BETWEEN WRINKLE.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	10.50	6.75	8.75	3.50	6.00	6.00	7.50	8.00	9.00	6.00	7.50	7.00	8.00	7.00	4.50	2.75
	4.50	3.50	4.25	5.00	7.25	5.00	5.75	6.75	7.00	8.25	5.25	4.00	10.75	6.00	8.75	6.00
	6.50	7.00	8.25	2.00	6.25	1.25	3.25	3.25	5.00	2.50	4.25	2.00	8.25	5.50	9.00	5.50
	7.25	2.50	7.75	2.00	5.75	3.00	4.75	4.00	11.25	6.00	5.75	1.75	5.00	3.50	3.50	3.50
	5.00	5.00	5.75	4.75	7.25	5.50	4.75	5.00	5.75	4.75	9.75	2.50	3.00	4.75	8.00	5.25
	7.50	5.75	8.25	6.50	5.00	5.00	5.25	7.50	12.00	6.00	7.00	3.00	8.75	5.00	4.75	5.25
	9.25	7.00	5.00	2.75	8.25	7.00	7.75	7.75	5.00	2.00	9.75	2.50	7.25	4.50	5.00	3.00
	6.25	5.00	6.50	4.75	5.50	3.50	3.25	3.00	7.00	5.00	5.25	4.00	4.25	2.75	5.25	2.00
	6.75	7.50	5.25	3.75	5.25	4.25	4.75	5.25	7.00	1.75	10.00	4.00	5.50	2.50	5.00	2.00
	3.25	3.00	5.75	1.50	5.50	7.00	6.00	4.00	6.50	4.50	7.75	5.00	7.00	2.00	4.75	6.50
	5.75	1.75	8.50	6.25	6.50	6.00	4.50	4.00	4.50	2.00	7.25	4.00	5.00	5.00	7.00	4.50
	6.25	6.00	7.75	6.00	9.25	5.50	5.25	4.75	7.50	3.00	5.75	3.00	5.00	3.75	4.50	2.00
	3.25	3.00	5.50	7.00	4.25	7.00	3.00	5.25	7.00	3.00	9.50	5.25	7.50	5.00	5.00	2.00
	8.50	5.00	5.00	3.00	4.00	3.25	9.00	6.50	13.00	3.00	6.00	2.00	8.50	5.00	3.50	2.50
	3.25	5.50	4.50	6.00	3.25	3.50	5.50	5.00	5.00	4.75	6.25	4.00	5.25	5.00	5.00	2.00
Total	93.75	75.25	91.75	64.75	89.25	76.75	81.25	81.00	113.50	59.50	107.00	55.00	92.00	61.25	81.50	54.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	10.5	162.06	7.50	37.50	9.25	142.77	8.00	40.00	13.00	200.65	7.00	35.00	10.75	165.92	6.50	32.50
Lowest	3.25	50.16	1.50	7.50	3.00	46.30	1.25	6.25	4.25	65.60	1.75	8.75	4.00	46.30	2.00	10.00
Average	6.18	95.39	4.67	23.35	5.68	87.68	5.26	26.30	7.35	113.44	3.81	19.05	5.78	89.21	3.86	19.30
Tests above average.....	15		18		14		15		11		11		11		14	
Tests below average.....	15		12		16		15		19		14		19		16	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

MERINO.

Catalogue number of samples.	68. SHOULDER.				68. SIDE.				68. HIP.				69. SHOULDER.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	5.25	7.25	8.00	6.75	6.50	7.00	11.75	8.50	15.00	6.00	9.00	6.50	5.25	3.75	10.00	9.00
	5.25	6.75	6.25	6.25	9.00	6.00	7.00	7.25	9.50	5.00	10.25	5.00	6.25	6.25	6.50	5.00
	6.75	4.50	5.50	6.75	8.00	8.75	4.00	3.00	11.50	4.00	12.00	6.00	6.50	6.50	5.50	3.75
	6.50	6.50	7.00	7.25	6.00	9.00	5.25	7.50	13.50	7.50	9.00	4.75	5.00	7.00	9.00	7.50
	12.00	5.75	6.00	4.75	6.00	3.00	4.50	5.50	12.00	6.50	9.75	6.00	5.25	1.75	5.50	4.75
	5.50	6.75	5.25	3.75	12.00	6.00	4.00	4.50	12.00	5.50	9.00	2.00	6.00	6.75	7.50	7.50
	6.25	5.75	5.75	6.75	7.25	7.50	7.00	9.00	9.75	5.00	11.00	8.00	5.50	7.00	6.50	6.75
	7.75	4.25	11.00	5.25	7.75	7.50	8.50	6.50	14.00	7.25	7.00	7.00	9.00	8.25	7.50	7.50
	8.75	6.75	5.25	3.75	6.25	7.50	4.00	3.75	10.50	8.25	12.00	6.00	6.25	8.00	10.00	7.25
	4.25	4.00	5.75	5.75	4.00	7.75	6.50	4.00	7.50	7.00	18.25	6.00	4.25	5.25	7.75	5.50
	8.00	9.00	10.25	3.25	4.75	5.00	11.75	7.00	8.25	5.00	9.00	6.00	5.00	2.25	6.25	6.25
	6.75	7.75	5.00	5.50	7.50	7.50	7.50	8.50	17.75	8.00	14.75	8.00	4.75	6.75	6.25	7.00
	4.50	4.00	6.50	6.50	6.50	7.75	6.00	8.75	9.00	4.75	9.50	3.00	7.25	5.25	5.00	4.25
	5.00	7.25	4.00	5.00	5.50	5.25	8.00	7.50	9.50	7.00	7.50	6.25	8.25	2.75	5.50	7.00
	7.50	5.75	9.00	7.75	8.00	2.00	8.00	8.25	14.75	6.00	19.00	8.75	4.25	2.00	6.50	8.00
Total	102.00	92.00	100.50	85.00	104.50	97.50	103.75	99.50	174.50	92.75	167.00	89.25	88.75	79.50	105.25	97.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	12.00	185.22	9.00	45.00	12.00	185.22	9.00	45.00	19.00	293.26	8.75	43.75	10.00	154.35	9.00	45.00
Lowest	4.00	61.74	3.25	16.25	4.00	61.74	2.00	10.00	7.50	115.75	3.00	15.00	4.25	65.60	1.75	8.75
Average	6.75	104.18	5.90	29.50	6.94	107.12	6.50	32.80	11.38	175.65	6.06	30.30	6.47	99.86	5.88	29.40
Tests above average	11		15		15		18		13		11		13		18	
Tests below average	18		15		15		12		17		17		17		12	

MERINO.

Catalogue number of samples.	69. SIDE.				69. HIP.				70. SHOULDER.				70. SIDE.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	4.25	4.25	5.50	7.00	19.25	6.00	6.00	4.50	11.50	6.50	4.00	4.50	8.00	3.00	5.50	7.00
	6.00	7.50	4.00	6.00	13.50	6.00	12.00	5.50	5.25	3.00	4.00	3.00	5.50	6.00	6.00	7.00
	11.25	7.50	9.00	6.75	15.00	4.00	14.00	5.00	8.50	3.25	5.00	5.25	9.00	3.50	10.00	9.00
	5.50	6.00	15.00	9.00	11.75	8.00	7.00	6.00	4.00	6.50	5.00	3.75	5.25	7.50	5.00	7.50
	6.50	6.25	7.00	5.25	15.50	4.00	13.00	5.75	3.50	5.75	9.25	6.25	6.00	5.00	6.00	7.00
	6.25	7.50	7.50	5.50	5.25	2.50	12.00	6.75	5.75	2.75	6.00	7.75	4.00	6.00	3.75	4.00
	4.00	3.25	6.50	6.00	7.00	2.75	12.50	5.00	11.00	6.75	4.50	7.00	5.50	3.25	4.00	4.50
	6.00	7.25	7.50	8.25	8.00	4.00	8.00	2.00	9.75	3.50	9.25	2.00	8.00	2.25	7.50	7.00
	9.25	6.75	7.00	7.00	6.00	6.00	9.75	4.00	4.50	6.25	5.75	2.25	4.50	7.25	6.00	7.50
	10.00	8.00	6.00	6.00	10.00	5.00	15.00	7.00	4.25	5.50	7.75	4.00	4.00	5.00	5.50	7.50
	4.00	3.75	7.00	4.75	12.50	5.25	13.00	5.00	10.00	6.00	4.75	4.50	8.00	6.50	4.00	5.50
	5.00	4.50	5.50	6.00	8.75	4.00	7.50	3.50	6.00	3.00	4.50	5.75	6.00	2.50	6.00	4.00
	7.00	8.00	10.00	9.00	11.50	3.00	9.00	4.75	5.25	3.75	7.50	2.75	6.25	4.50	5.50	4.25
	5.50	4.50	8.00	7.25	8.75	6.25	7.00	4.00	6.50	6.50	7.75	3.25	5.50	8.50	6.00	6.50
	5.50	4.50	5.25	4.25	14.00	4.00	7.50	4.50	4.00	4.00	3.75	4.25	6.25	5.50	4.50	7.00
Total	96.00	89.50	111.00	98.00	166.75	70.75	153.25	73.25	99.75	73.00	88.75	66.25	91.75	85.75	85.00	95.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	15.00	231.52	9.00	45.00	19.25	297.12	8.00	40.00	11.50	177.50	7.75	38.75	10.00	154.35	9.00	45.00
Lowest	4.00	61.74	3.25	16.25	5.25	81.04	2.00	10.00	3.50	54.02	2.00	10.00	3.75	57.88	2.25	11.25
Average	6.90	106.50	6.35	31.75	10.66	164.53	4.80	24.00	6.28	96.93	4.64	23.20	5.89	90.90	6.03	30.15
Tests above average	13		11		15		15		11		13		16		15	
Tests below average	17		17		15		15		19		17		14		15	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

MERINO.

Catalogue number of samples..	70. HIP.				71. SHOULDER.				71. SIDE.				71. HIP.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	15.00	231.52	8.00	40.00	7.75	119.62	7.75	38.75	9.00	138.91	9.00	45.00	13.00	200.65	7.00	35.00
Lowest	4.00	61.74	1.00	5.00	3.00	46.30	2.25	11.25	4.00	61.74	2.00	10.00	4.00	61.74	1.00	5.00
Average	7.98	123.17	3.45	17.25	4.98	76.86	5.13	25.65	5.80	90.45	6.08	30.40	8.10	125.02	3.63	18.15
Tests above average	16		13		14		14		15		17		14		16	
Tests below average	14		17		16		16		15		13		17		14	

Actual measurement in grams and millimeters.

70. HIP.				71. SHOULDER.				71. SIDE.				71. HIP.			
Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
15.00	231.52	8.00	40.00	7.75	119.62	7.75	38.75	9.00	138.91	9.00	45.00	13.00	200.65	7.00	35.00
4.00	61.74	1.00	5.00	3.00	46.30	2.25	11.25	4.00	61.74	2.00	10.00	4.00	61.74	1.00	5.00
12.75	196.80	5.25	26.25	6.00	92.59	6.50	32.50	5.25	81.04	6.00	30.00	7.00	108.04	2.50	12.50
10.00	154.33	3.00	15.00	4.75	73.31	4.25	21.25	4.50	69.46	6.00	30.00	7.00	108.04	4.75	23.75
8.00	123.46	4.00	20.00	7.00	108.04	3.75	18.75	5.50	84.89	5.50	27.50	10.25	158.21	4.00	20.00
12.00	185.19	5.50	27.50	4.75	73.31	5.00	25.00	7.00	108.04	6.25	31.25	9.75	150.53	5.00	25.00
5.00	77.17	3.00	15.00	4.00	61.74	2.50	12.50	5.00	77.17	7.25	36.25	5.00	77.17	3.25	16.25
5.00	77.17	1.00	5.00	3.75	57.87	4.75	23.75	5.00	77.17	8.50	42.50	5.25	81.04	2.00	10.00
4.75	73.31	2.00	10.00	3.00	46.30	3.25	16.25	4.75	73.31	6.50	32.50	11.25	173.64	3.25	16.25
9.50	146.63	1.50	7.50	3.25	50.16	6.00	30.00	8.25	127.32	7.50	37.50	5.00	77.17	2.25	11.25
6.25	96.45	4.00	20.00	5.75	88.73	7.50	37.50	9.00	138.91	8.50	42.50	8.00	123.46	3.75	18.75
12.75	196.80	4.00	20.00	5.00	77.17	4.75	23.75	6.00	92.59	5.50	27.50	5.00	77.17	2.50	12.50
7.50	115.75	2.00	10.00	5.00	77.17	6.25	31.25	4.50	69.46	7.25	36.25	12.25	189.10	4.50	22.50
4.50	69.46	2.00	10.00	5.00	77.17	5.25	26.25	4.00	61.74	7.00	35.00	11.00	169.76	4.00	20.00
5.00	77.17	3.00	15.00	6.25	96.45	7.00	35.00	5.00	77.17	7.00	35.00	6.75	104.18	3.00	15.00
122.00	1883.17	53.25	266.25	72.50	1119.02	72.25	361.25	84.75	1308.03	94.25	471.25	118.50	1829.01	49.75	248.75
117.50	1813.71	50.50	252.50	76.75	1184.33	81.50	407.50	91.25	1408.49	88.25	441.25	124.50	1921.39	59.25	296.25

MERINO.

Catalogue number of samples..	72. SHOULDER.				72. SIDE.				72. HIP.				73. SHOULDER.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	7.00	108.04	7.50	37.50	9.50	146.63	7.25	36.25	16.75	258.53	6.00	30.00	13.50	208.37	8.25	41.25
Lowest	3.25	50.16	2.50	12.50	3.00	46.30	3.00	15.00	5.00	77.17	2.00	10.00	5.00	77.17	3.00	15.00
Average	4.60	72.39	4.03	23.15	5.20	80.28	4.65	23.25	9.20	141.99	3.37	16.85	8.22	126.87	5.77	28.85
Tests above average	12		14		15		15		11		14		12		14	
Tests below average	18		16		15		15		19		16		18		16	

Actual measurement in grams and millimeters.

72. SHOULDER.				72. SIDE.				72. HIP.				73. SHOULDER.			
Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
4.00	61.74	2.75	13.75	9.50	146.63	3.00	15.00	9.50	146.63	3.00	15.00	6.25	96.45	5.25	26.25
3.50	54.01	3.75	18.75	5.00	77.17	4.00	20.00	5.00	77.17	2.25	11.25	10.00	154.33	4.25	21.25
3.00	46.30	3.75	18.75	4.00	61.74	5.00	25.00	9.00	138.91	2.25	11.25	7.00	108.04	4.75	23.75
4.00	61.74	5.50	27.50	4.00	61.74	5.00	25.00	14.00	216.08	4.00	20.00	11.00	169.76	5.75	28.75
4.25	65.60	2.50	12.50	3.50	54.01	3.00	15.00	9.25	142.77	3.75	18.75	7.00	108.04	6.00	30.00
6.00	92.59	5.50	27.50	6.25	96.45	4.75	23.75	7.00	108.04	2.50	12.50	5.75	88.73	4.00	20.00
6.50	100.32	7.00	35.00	3.50	54.01	5.00	25.00	5.50	84.89	2.50	12.50	10.25	158.21	5.00	25.00
3.25	50.16	2.50	12.50	3.00	46.30	4.50	22.50	12.75	196.80	6.00	30.00	6.00	92.59	7.00	35.00
3.50	54.01	4.25	21.25	6.50	100.32	5.50	27.50	5.00	77.17	3.00	15.00	10.50	162.05	4.75	23.75
4.25	65.60	3.50	17.50	3.75	57.87	6.50	32.50	13.25	204.51	2.00	10.00	8.00	123.46	6.25	31.25
3.75	57.87	3.75	18.75	4.00	61.74	3.00	15.00	12.00	185.19	2.25	11.25	11.00	169.76	7.00	35.00
4.50	69.46	5.25	26.25	4.25	65.60	3.00	15.00	6.00	92.59	3.00	15.00	8.75	135.04	7.25	36.25
5.50	84.89	4.50	22.50	5.50	84.89	3.50	17.50	7.25	111.90	2.25	11.25	6.75	104.18	3.75	18.75
4.25	65.60	7.00	35.00	7.00	108.04	6.00	30.00	5.75	88.73	5.00	25.00	5.50	84.89	5.50	27.50
4.25	65.60	3.50	17.50	5.50	84.89	3.75	18.75	2.25	34.73	3.50	17.50	5.00	77.17	7.00	35.00
67.00	1034.19	64.00	320.00	79.25	1223.03	65.50	327.50	155.75	2403.63	50.25	251.25	115.75	1786.39	82.75	413.75
73.25	1130.49	75.00	375.00	77.00	1188.34	74.00	370.00	139.50	2153.07	54.00	270.00	127.75	1972.09	90.25	451.25

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

MERINO.

Catalogue number of samples..	73. SIDE.				73. HIP.				74. SHOULDER.				74. SIDE.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	12.25	8.00	4.50	4.25	7.75	3.00	8.00	3.00	6.00	4.00	5.75	4.75	8.00	9.50	6.00	5.00
	6.75	4.00	8.25	6.25	10.00	4.00	7.00	2.50	11.00	6.00	10.25	5.25	6.50	7.50	11.00	8.25
	8.00	8.00	6.50	7.00	6.50	5.25	11.00	2.75	7.00	5.00	9.25	6.25	10.00	7.00	11.25	6.00
	7.00	5.00	8.75	5.00	9.00	5.00	5.50	4.75	11.25	8.00	5.50	5.50	9.50	8.50	6.50	7.50
	5.00	4.00	8.00	8.00	7.00	3.00	6.75	3.00	5.50	4.75	12.25	7.75	5.25	5.00	6.00	5.25
	5.75	6.00	8.50	4.00	6.25	4.00	8.75	6.00	5.75	4.50	9.00	6.75	7.50	7.50	8.00	6.75
	9.00	7.00	7.00	7.50	8.00	2.75	8.75	3.75	8.00	6.00	11.00	8.00	7.00	8.00	8.00	8.25
	4.00	7.75	8.75	8.00	6.25	3.00	9.00	6.00	7.00	4.75	9.50	7.00	10.00	9.00	9.75	7.50
	9.00	7.50	7.75	6.00	8.00	3.50	4.75	3.25	7.25	6.75	7.00	5.50	6.00	4.25	7.00	7.25
	6.50	4.25	6.00	7.00	10.50	5.00	8.00	1.75	13.50	8.00	6.50	5.00	5.00	5.25	7.00	7.50
	7.75	4.25	6.00	5.00	8.75	5.25	9.00	1.00	14.00	7.50	12.50	6.00	8.75	7.75	8.00	6.75
	6.00	6.50	8.00	4.00	10.25	3.00	5.25	2.00	11.50	7.00	8.00	5.00	7.50	8.00	5.00	5.00
	5.00	6.50	5.75	4.00	14.00	5.00	11.50	3.00	5.00	6.00	12.50	6.50	7.00	9.50	5.00	7.00
	7.50	7.50	5.00	4.25	8.00	5.50	10.50	7.00	6.00	5.00	10.00	4.00	8.50	7.75	5.00	5.25
	8.75	6.00	7.00	7.00	6.00	5.25	6.50	4.00	7.25	4.75	7.25	5.00	9.50	7.00	5.50	8.00
Total	108.25	98.75	106.75	87.25	126.25	62.50	120.25	53.75	126.00	88.00	136.25	88.25	116.00	111.50	109.00	101.25

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	12.25	189.07	8.00	40.00	14.00	216.08	7.00	35.00	14.00	216.08	8.00	40.00	11.25	173.64	9.50	47.50
Lowest	4.00	61.74	4.00	20.00	5.25	81.03	1.00	5.00	5.00	77.17	4.00	20.00	5.00	77.17	4.25	21.25
Average	7.16	110.51	6.20	31.00	8.21	126.72	3.87	19.35	8.74	134.90	5.88	29.40	7.50	115.76	7.09	35.45
Tests above average	15		15		13		14		14		15		13		17	
Tests below average	15		15		17		16		16		15		15		13	

MERINO.

Catalogue number of samples..	74. HIP.				75. SHOULDER.				75. SIDE.				75. HIP.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	13.75	6.00	9.75	2.75	[illegible]	3.25	8.75	5.50	6.50	7.00	5.00	4.25	10.00	4.00	10.00	4.75
	14.00	6.75	11.75	7.00	5.75	3.25	12.75	7.00	10.50	5.50	7.25	7.50	7.00	2.25	11.25	7.00
	10.00	6.00	8.00	3.00	6.50	3.25	6.00	2.50	8.00	6.00	7.25	5.00	7.00	3.00	8.00	7.00
	11.25	7.00	12.25	6.25	7.00	6.25	9.06	3.50	8.00	7.25	5.00	7.00	8.00	6.25	14.00	6.00
	17.25	5.75	9.75	4.00	8.75	2.50	9.00	5.50	7.25	5.75	11.00	8.50	7.00	3.75	11.00	6.00
	17.25	6.00	12.00	5.00	8.00	3.25	8.00	4.75	7.00	8.00	6.50	5.00	6.50	4.75	15.00	6.00
	12.75	7.00	10.00	4.75	6.75	2.50	6.50	4.00	8.00	7.50	7.50	7.00	7.00	4.00	7.00	6.00
	9.50	6.00	20.00	7.00	7.00	2.25	8.25	2.75	7.00	5.00	10.00	7.00	6.25	4.00	14.75	6.00
	10.00	5.00	8.50	5.25	12.75	6.50	5.50	2.50	7.50	7.50	9.00	6.25	10.50	5.00	7.00	3.00
	15.00	5.00	13.00	6.50	9.50	3.75	8.75	3.00	10.00	7.75	8.00	6.00	6.00	2.25	8.00	2.75
	15.00	3.00	12.75	5.75	9.00	4.75	6.75	3.50	7.25	6.50	5.00	7.00	8.00	6.00	10.25	4.00
	11.00	7.00	9.25	7.00	6.00	3.00	5.75	5.75	7.50	6,75	8.00	7.25	9.00	3.00	7.50	2.50
	8.00	5.00	13.00	5.00	7.00	3.25	6.00	4.00	9.50	6.00	7.50	6.00	9.75	6.25	6.00	2.00
	11.50	4.00	20.00	6.50	7.00	4.00	7.50	4.00	5.00	6.00	5.75	8.50	17.75	7.00	7.50	3.00
	10.00	6.00	14.25	8.25	7.50	6.75	7.00	4.25	11.00	7.50	10.00	6.25	13.50	7.00	8.50	5.00
Total	186.25	85.50	184.25	84.00	115.00	55.50	115.50	62.50	120.00	100.00	112.75	98.50	133.25	68.50	145.75	71.00

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	20.00	308.69	8.25	41.25	12.75	196.79	7.00	35.00	11.00	169.78	8.50	42.50	17.75	273.96	7.00	35.00
Lowest	8.00	123.48	2.75	13.75	5.50	84.89	2.25	11.50	5.00	77.17	4.25	21.25	6.00	92.61	2.00	10.00
Average	12.35	190.62	5.65	28.25	7.68	118.54	3.93	19.65	7.75	119.62	6.51	32.55	9.30	143.54	4.65	23.25
Tests above average	13		18		12		13		13		10		11		16	
Tests below average	17		12		18		17		17		14		18		14	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

MERINO.

Catalogue number of samples..	76. SHOULDER.				76. SIDE.				76. HIP.				77. SHOULDER.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	5.50	3.00	10.25	1.75	5.00	4.50	7.00	7.25	11.75	2.00	10.00	4.50	5.75	5.75	8.00	5.25
	6.00	5.00	7.25	1.75	6.00	7.00	5.25	5.00	6.00	3.75	12.00	5.75	8.25	4.75	7.25	4.25
	8.50	2.25	6.50	1.50	7.25	5.00	7.00	4.75	7.00	3.00	11.00	2.75	5.00	6.50	5.00	5.00
	14.75	5.00	12.00	2.00	4.00	5.25	5.00	8.00	6.75	4.25	9.00	4.00	5.75	4.50	5.00	5.75
	10.00	1.25	10.00	5.00	5.75	4.50	5.00	5.50	6.50	5.25	10.50	3.75	5.00	3.75	6.25	5.25
	8.25	2.50	9.25	4.00	4.00	3.50	5.00	6.50	13.25	3.50	11.00	5.75	5.25	4.25	6.00	6.25
	8.25	2.00	13.00	2.75	8.25	3.25	5.00	3.75	12.25	6.00	8.00	5.50	6.00	4.00	5.00	7.50
	10.00	5.25	5.75	2.00	6.75	7.25	5.00	3.25	6.50	3.00	9.00	4.75	5.50	3.50	7.75	8.00
	8.00	1.75	8.75	2.25	6.25	6.00	4.00	5.50	10.00	5.50	12.00	5.00	5.00	5.50	7.00	7.00
	8.00	1.00	12.00	5.00	5.00	5.25	6.50	7.00	12.50	4.00	5.75	1.50	4.25	5.25	6.25	6.50
	5.50	2.25	8.25	3.50	8.25	5.00	4.00	4.00	7.25	4.75	7.00	3.00	9.00	4.75	6.50	6.50
	12.75	3.75	9.50	1.25	5.50	5.75	4.00	6.00	9.00	2.00	6.50	2.50	10.50	7.00	8.00	8.00
	5.50	4.50	7.50	3.00	5.50	5.25	6.00	6.50	6.25	6.00	7.00	4.00	5.75	5.00	9.00	5.00
	8.75	1.75	8.00	2.00	7.00	7.00	4.25	6.00	10.00	4.00	10.75	5.75	7.50	5.25	4.25	8.50
	7.75	1.50	9.25	1.50	5.25	5.25	4.50	5.00	9.50	4.00	7.00	3.50	6.50	5.50	7.25	5.75
Total	134.75	42.75	137.25	39.25	89.75	97.50	77.50	84.00	134.75	61.00	136.50	62.00	85.00	74.75	98.50	90.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	14.75	227.66	5.25	26.25	8.25	127.34	8.00	40.00	13.50	208.37	6.00	30.00	10.50	162.03	8.00	40.00
Lowest	5.50	84.89	1.00	5.00	4.00	61.74	3.25	16.25	5.75	88.75	1.50	7.50	4.25	65.60	3.50	17.50
Average	9.07	139.99	2.73	13.65	5.57	85.97	6.05	30.25	9.04	139.53	4.10	20.50	6.12	94.46	5.51	27.55
Tests above average	13		12		12		8		14		13		15		13	
Tests below average	17		18		18		22		16		17		15		17	

MERINO.

Catalogue number of samples..	77. SIDE.				77. HIP.				78. SHOULDER.				78. SIDE.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	5.50	6.50	8.50	5.00	5.75	5.25	13.50	4.75	5.00	4.00	5.00	1.75	5.00	4.50	5.25	7.25
	4.25	6.00	4.00	8.50	5.75	6.00	6.50	3.00	5.50	2.75	5.25	4.25	5.25	5.75	5.50	4.50
	5.25	5.50	5.00	8.25	9.25	5.25	5.00	3.75	6.00	5.00	5.50	3.25	8.00	6.75	5.75	6.25
	5.75	7.50	4.00	8.00	10.00	3.00	3.25	6.00	5.50	1.75	5.00	6.00	5.25	4.75	11.00	8.75
	5.25	8.75	5.25	6.50	7.00	4.75	10.75	4.00	6.50	5.75	6.25	5.75	7.25	7.50	5.00	6.25
	5.75	5.75	5.50	8.00	10.00	5.50	6.00	3.00	4.50	3.25	4.50	1.75	6.50	4.25	6.00	6.25
	4.00	5.25	4.75	5.00	4.25	4.00	7.00	5.60	9.50	6.00	6.75	5.00	6.50	8.50	5.00	7.00
	6.25	7.00	5.60	7.25	9.00	5.75	7.00	3.25	5.25	3.00	7.75	6.50	7.25	8.25	4.50	5.00
	4.00	5.00	4.25	7.60	11.25	5.25	13.50	4.50	6.25	5.00	5.25	5.25	5.00	7.25	4.50	8.25
	4.50	5.00	11.00	7.00	7.75	7.00	6.75	3.00	7.75	7.25	7.75	5.00	5.50	5.00	4.75	7.50
	4.25	8.25	6.50	7.25	4.75	5.00	5.00	4.25	9.25	6.25	7.75	6.50	7.00	8.00	6.25	4.00
	4.25	7.50	4.75	7.50	5.75	3.50	9.00	6.75	6.00	3.75	5.25	3.25	7.25	6.00	7.00	5.00
	6.00	7.00	5.00	5.50	14.00	6.75	8.00	5.25	5.25	2.25	7.25	5.25	6.50	4.75	6.25	8.00
	5.00	6.25	5.50	8.50	11.50	4.50	4.50	4.75	7.75	6.75	5.00	3.00	6.00	7.00	11.00	7.75
	7.00	7.75	5.00	7.50	6.00	3.00	11.00	5.50	5.75	4.75	6.00	5.25	5.50	8.00	5.75	4.00
Total	77.00	102.00	84.00	106.75	122.00	74.50	115.70	66.75	95.75	67.50	89.25	67.75	96.75	92.75	78.50	93.75

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	11.00	169.78	8.75	43.75	14.00	216.08	7.00	35.00	9.50	146.63	7.25	36.25	11.00	169.78	8.75	43.75
Lowest	4.00	61.74	5.00	25.00	4.25	65.60	3.00	15.00	4.25	65.60	1.75	8.75	4.50	69.46	4.00	20.00
Average	5.36	82.73	6.95	34.75	7.92	122.24	4.70	23.50	6.17	95.23	4.51	22.53	5.67	87.51	6.21	31.05
Tests above average	11		19		13		17		12		17		13		16	
Tests below average	19		11		17		13		18		13		12		14	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

MERINO.

Catalogue number of samples..	78. HIP.				79. SHOULDER.				79. SIDE.				79. HIP, TOP OF WRINKLE.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	12.00	6.00	6.00	5.25	5.75	5.00	5.00	5.50	8.50	8.25	4.75	6.00	7.75	3.00	7.75	4.00
	5.00	3.75	5.00	5.00	5.00	6.75	6.00	4.25	5.00	5.25	5.25	6.25	7.75	6.00	10.00	7.00
	7.50	3.25	6.75	7.00	4.00	4.00	6.25	7.00	8.00	8.00	5.00	7.25	5.25	4.00	7.50	6.00
	11.50	3.00	10.75	6.00	5.25	3.75	5.50	3.75	6.50	8.50	4.00	7.00	8.50	5.50	8.75	5.50
	7.00	4.75	9.50	6.25	7.00	4.75	6.75	6.00	9.00	6.00	4.25	6.25	10.75	7.00	9.50	4.25
	5.75	4.50	7.00	6.00	4.75	2.25	7.25	4.00	5.00	6.25	4.50	5.75	10.50	4.75	5.75	3.50
	6.75	5.50	8.25	3.25	6.00	5.00	4.75	6.00	4.25	3.50	5.25	5.75	8.75	5.75	7.00	4.75
	9.00	4.00	4.75	2.50	6.75	7.25	4.75	5.75	6.00	3.25	5.25	6.00	7.00	3.00	6.00	6.00
	5.00	[illegible]	11.25	5.00	5.00	7.50	6.25	6.00	7.50	7.75	4.25	7.00	6.00	3.50	7.00	7.00
	5.75	3.75	9.25	4.00	6.00	4.75	5.00	5.75	5.00	7.00	5.50	6.25	6.50	4.50	6.75	3.75
	10.50	4.00	6.00	3.00	6.50	7.25	5.50	6.50	6.25	6.00	4.25	3.25	6.75	4.50	9.00	4.00
	9.00	4.25	10.50	3.00	5.50	5.75	9.00	7.25	7.00	7.00	9.00	7.00	6.25	4.00	7.00	4.00
	8.25	6.00	7.00	4.00	6.00	5.25	6.00	6.00	5.25	6.00	4.25	5.00	10.00	4.50	6.75	3.75
	7.25	6.00	7.50	3.00	7.50	4.75	4.75	5.00	5.00	9.00	4.25	6.00	6.50	4.50	9.75	3.50
	8.75	[illegible]	12.75	4.00	8.25	8.00	5.50	4.50	4.50	4.00	5.50	7.25	7.50	4.75	7.50	4.00
Total	119.00	67.00	122.25	67.25	89.25	82.00	88.25	83.25	92.75	95.75	76.25	92.00	115.75	69.25	116.00	71.00

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	12.75	196.79	7.00	35.00	9.00	138.91	8.00	40.00	9.00	138.91	9.00	45.00	10.75	165.92	7.00	35.00
Lowest	5.00	77.17	3.00	15.00	4.00	61.74	2.25	11.25	4.25	65.60	3.25	16.25	5.25	81.03	3.00	15.00
Average	8.04	124.09	4.47	22.35	5.92	91.37	5.51	27.55	5.63	86.90	6.25	31.25	7.72	119.15	4.67	23.35
Tests above average	14		14		15		15		9		12		13		12	
Tests below average	16		16		15		15		21		14		17		18	

MERINO.

Catalogue number of samples..	79. HIP, BETWEEN WRINKLE.				80. SHOULDER.				80. SIDE.				80. HIP.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	6.25	4.25	9.75	6.00	6.75	7.00	5.75	8.00	4.00	7.75	3.50	6.25	5.50	5.75	4.00	4.00
	8.00	5.25	5.00	5.75	8.50	7.75	6.00	6.50	4.25	9.00	5.50	8.00	4.25	7.00	7.75	5.25
	6.00	3.25	10.00	5.25	4.25	7.00	4.25	5.00	4.50	9.25	4.00	7.75	5.25	3.00	6.25	6.00
	10.25	5.25	5.50	5.00	4.00	7.00	6.50	5.50	3.50	8.00	5.25	5.00	6.00	4.50	4.00	2.75
	7.75	7.00	10.75	3.00	3.00	5.00	7.00	6.50	3.75	9.00	3.50	5.00	6.50	6.00	4.00	5.00
	6.00	4.00	6.50	6.00	5.00	6.25	4.75	8.50	3.25	7.25	3.75	5.25	4.75	6.75	7.00	5.00
	5.50	3.00	10.00	6.25	6.00	5.50	6.25	7.75	5.00	8.50	3.75	6.00	4.25	6.00	4.00	7.00
	6.00	3.00	7.00	5.00	5.25	6.25	3.50	5.50	5.00	7.00	6.00	9.00	3.00	3.00	5.25	4.75
	7.50	[illegible]	5.50	3.00	5.25	8.00	5.00	4.00	5.00	6.25	4.00	6.75	4.50	6.00	4.00	4.75
	8.00	4.75	5.75	3.50	4.00	7.25	5.25	8.00	4.00	8.25	5.25	7.00	5.25	4.75	6.25	7.00
	10.00	7.00	7.25	7.00	5.25	5.75	4.75	7.25	5.00	7.75	4.25	6.50	3.25	3.00	4.75	4.50
	6.75	4.75	12.50	6.25	3.75	6.00	6.00	7.00	6.25	6.50	5.00	7.00	6.00	5.75	5.00	3.00
	7.25	5.25	5.00	3.00	5.00	8.00	3.00	5.00	6.00	8.00	4.75	7.50	5.00	6.75	4.00	7.00
	9.50	6.75	6.00	6.25	5.00	6.25	5.50	8.00	4.00	8.00	5.00	6.50	8.00	4.50	5.50	7.00
	9.00	6.00	6.75	3.75	7.25	5.75	5.25	7.50	5.50	6.75	8.50	7.75	4.75	5.00	4.50	4.50
Total	113.75	75.50	113.25	75.00	78.25	98.75	78.75	100.00	69.00	117.25	72.00	101.25	76.25	77.75	76.25	77.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	12.50	192.93	7.00	35.00	8.50	131.19	8.50	42.50	8.50	131.19	9.25	46.25	8.00	123.48	7.00	35.00
Lowest	5.00	77.17	3.00	15.00	3.00	46.30	4.00	20.00	3.25	50.16	5.60	25.00	3.00	46.30	2.75	13.75
Average	7.56	116.69	5.01	25.05	5.23	80.72	6.63	33.15	4.70	72.54	7.28	36.40	5.08	78.41	5.17	25.85
Tests above average	12		16		16		13		15		15		13		14	
Tests below average	18		14		14		15		15		15		17		16	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

MERINO.

Catalogue number of samples..	81. SHOULDER.				81. SIDE.				81. HIP.				82. SHOULDER.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Actual measurement in grams and millimeters.	10.25	6.75	7.25	4.25	8.25	7.75	5.25	7.00	5.00	4.00	8.00	3.25	4.75	2.25	5.50	4.75
	6.25	8.75	7.00	5.25	6.25	9.00	6.50	6.75	8.75	3.50	7.00	4.50	6.25	6.75	6.75	4.00
	8.00	5.00	9.00	7.25	11.50	7.25	8.00	6.50	13.00	8.00	9.25	4.25	6.75	2.25	8.25	5.75
	8.00	5.00	11.75	7.50	5.00	6.25	6.00	8.00	12.75	2.75	7.75	2.00	6.50	5.25	7.50	6.50
	7.50	7.75	5.50	6.00	9.50	7.25	4.75	8.25	8.50	7.00	7.00	7.00	6.25	3.25	9.25	6.50
	7.75	4.00	13.75	7.25	4.75	8.00	5.00	8.50	14.75	5.75	11.00	4.00	5.75	4.00	6.00	3.75
	8.00	5.75	11.25	6.75	4.00	7.25	5.00	7.00	11.00	5.25	14.75	6.00	5.00	3.75	5.00	3.00
	8.50	7.75	5.75	4.00	10.50	8.00	5.00	6.00	5.75	2.00	7.75	3.00	9.75	6.00	7.00	4.25
	9.50	8.00	7.75	4.00	10.00	8.50	7.75	5.00	6.00	2.50	14.00	6.00	5.00	4.50	5.50	4.00
	6.50	7.75	5.25	5.00	5.00	7.00	15.00	6.50	9.50	5.25	7.75	4.50	8.25	6.75	6.00	2.75
	7.75	4.50	7.75	5.75	6.25	5.00	5.00	6.00	6.50	3.50	6.50	5.75	7.25	5.00	6.25	6.00
	6.25	7.25	6.25	4.50	4.50	8.25	4.75	7.25	12.25	3.25	10.75	7.00	7.25	5.50	6.75	3.50
	6.50	5.50	9.25	4.75	5.50	5.00	7.00	6.00	6.50	2.50	9.50	5.00	7.25	2.75	7.75	5.75
	6.50	4.00	6.50	4.75	4.00	6.75	4.50	6.00	7.50	3.75	12.75	5.00	8.75	5.75	7.00	6.25
	6.00	4.00	6.75	4.00	5.00	6.25	8.50	6.25	11.75	7.00	7.50	4.00	5.50	6.25	7.75	5.75
Total	113.25	91.75	117.75	81.00	100.00	107.50	93.00	101.50	140.50	67.00	145.25	71.25	100.25	70.00	102.25	72.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	11.75	181.36	8.75	43.75	11.50	177.50	9.00	45.00	14.75	227.66	8.00	40.00	9.75	150.49	6.75	33.75
Lowest	5.25	81.03	4.00	20.00	4.00	61.74	5.00	25.00	5.00	77.17	2.00	10.00	4.75	73.31	2.25	11.25
Average	7.70	118.85	5.76	28.80	6.43	99.24	6.86	34.30	9.63	147.09	4.61	23.05	6.75	104.18	4.75	23.75
Tests above average	15		12		11		17		12		13		13		15	
Tests below average	15		18		19		13		18		17		18		14	

MERINO.

Catalogue number of samples..	82. SIDE.				82. HIP.				83. SHOULDER.				83. SIDE.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Actual measurement in grams and millimeters.	5.50	2.00	6.00	3.50	5.00	3.00	5.00	4.00	7.50	3.50	8.00	6.75	5.00	4.00	4.25	3.50
	5.50	8.00	8.00	7.25	11.25	7.25	5.00	3.00	7.25	3.25	8.00	4.75	5.00	5.25	8.50	5.50
	4.75	2.00	6.00	4.00	9.50	5.50	5.00	3.00	6.50	5.00	4.50	5.75	4.00	3.00	6.75	4.00
	11.00	6.50	6.00	3.00	8.25	3.25	5.00	3.00	6.75	6.00	6.50	6.25	5.75	5.00	5.25	5.75
	7.50	2.00	4.00	5.00	16.75	5.00	6.00	4.50	8.25	4.75	5.50	5.75	5.50	4.50	4.00	3.50
	5.75	6.00	7.50	6.00	13.75	3.00	7.00	5.50	5.00	3.00	5.50	5.75	6.50	7.25	6.00	4.00
	6.25	3.00	5.50	2.25	9.00	4.00	7.25	5.75	4.50	6.50	4.50	6.25	4.00	5.00	8.50	5.00
	8.00	7.00	6.00	2.00	8.00	3.00	8.50	4.75	5.75	7.00	9.75	5.25	6.00	6.75	7.25	5.50
	5.00	2.50	5.50	6.00	6.00	4.00	12.50	3.00	12.25	5.00	13.25	7.50	7.00	6.50	4.50	4.75
	4.00	5.75	6.50	4.25	8.50	6.00	7.00	5.50	9.50	5.00	7.50	3.75	5.00	6.50	4.25	4.00
	5.25	4.25	9.00	5.00	6.00	6.75	14.00	5.00	13.75	8.00	7.00	3.75	6.00	6.00	6.00	7.25
	10.00	4.25	8.50	6.75	9.75	3.75	16.50	6.75	6.25	6.25	7.75	4.00	4.00	5.75	5.00	7.50
	4.75	9.50	7.00	7.00	7.00	6.25	5.25	3.25	5.75	4.50	8.00	6.75	9.00	5.75	6.75	6.00
	5.00	4.25	5.50	8.50	7.50	4.75	9.50	5.00	6.25	3.25	7.00	4.50	4.00	5.00	3.75	4.00
	5.50	3.50	9.75	6.25	12.00	6.00	18.25	7.25	8.00	5.00	11.75	4.75	5.50	7.50	5.50	7.00
Total	93.75	65.50	98.25	71.75	135.25	71.50	131.75	69.25	113.25	81.00	111.50	81.50	82.25	87.25	86.25	77.75

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	11.00	169.78	8.00	40.00	18.25	281.68	7.25	36.25	13.75	212.23	8.00	40.00	9.00	138.91	7.50	37.50
Lowest	4.00	61.74	2.00	10.00	5.00	77.17	3.00	15.00	4.50	69.46	3.25	16.25	3.75	57.87	3.50	17.50
Average	6.40	98.78	4.57	22.85	8.90	137.37	6.69	33.45	7.49	115.61	5.42	27.10	5.61	86.59	5.50	27.50
Tests above average	19		14		12		16		14		14		12		14	
Tests below average	20		16		18		14		18		16		18		14	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

MERINO.

Catalogue number of samples..	83. HIP.				84. SHOULDER. (17 months.)				84. SHOULDER.				84. SIDE.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	18.00	6.50	19.75	3.00	4.25	5.50	5.00	4.00	4.50	2.00	5.50	3.25	5.00	1.50	3.00	2.00
	10.75	1.50	4.00	4.00	5.00	7.00	4.25	5.75	4.00	1.25	3.75	2.25	3.00	1.00	5.00	5.25
	11.50	2.50	15.00	3.00	6.75	6.50	4.00	5.75	6.50	2.75	6.25	3.75	6.00	4.50	4.50	4.25
	17.00	4.00	10.25	3.00	5.25	7.75	4.00	5.00	5.50	1.75	3.75	3.25	4.00	1.50	3.50	2.00
	5.00	2.25	11.50	2.00	5.25	6.00	3.75	6.00	3.25	2.50	3.50	1.50	3.50	2.00	6.25	2.25
	13.25	3.25	10.50	2.25	5.00	6.75	6.00	6.25	3.25	1.75	3.75	2.25	7.50	6.25	4.25	3.75
	9.00	3.00	12.50	2.25	5.50	6.25	6.00	7.00	6.25	4.75	3.25	2.00	5.00	4.50	3.25	1.50
	22.25	7.50	11.25	3.00	7.00	5.25	5.00	6.25	4.50	2.00	4.50	3.25	3.50	2.00	5.50	2.50
	3.00	2.75	5.00	5.00	5.50	6.00	4.00	8.25	6.25	5.00	5.25	1.75	3.00	1.00	2.75	3.25
	24.00	3.00	4.50	2.75	4.25	4.75	4.75	6.75	3.75	3.25	4.00	3.75	4.75	5.00	4.00	2.50
	12.00	3.50	16.50	5.25	4.50	7.00	4.00	7.50	5.50	2.25	5.00	3.75	7.25	3.00	5.50	4.00
	7.50	3.00	10.50	2.50	6.25	6.75	3.00	5.75	4.25	1.75	4.25	2.50	3.00	2.50	5.00	4.25
	4.75	1.75	12.00	3.00	7.00	5.50	3.25	5.50	3.75	1.50	4.25	2.75	3.00	1.00	4.75	4.75
	6.00	4.00	6.25	4.25	3.50	5.50	5.50	5.75	4.00	3.75	6.00	3.25	4.00	3.75	6.00	5.00
	3.50	1.50	12.00	2.25	3.75	5.00	4.50	6.50	4.75	3.75	6.50	3.00	3.00	1.00	4.00	4.50
Total	167.50	50.25	161.50	48.50	78.75	91.51	67.00	92.00	7.00	40.00	69.50	42.25	65.50	40.50	67.25	51.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	24.00	370.43	7.50	37.50	7.00	108.04	8.25	41.25	6.50	100.32	5.00	25.00	7.50	115.76	6.25	31.25
Lowest	3.00	46.30	1.50	7.50	3.00	46.30	4.00	20.00	3.25	50.16	1.25	6.25	2.75	42.44	1.00	5.00
Average	14.30	220.71	3.29	16.45	4.86	75.01	6.12	30.60	4.65	71.77	2.74	13.70	4.42	68.22	3.07	15.35
Tests above average	7		9		15		14		12		15		13		14	
Tests below average	23		21		15		16		18		15		17		16	

MERINO.

Catalogue number of samples..	84. HIP.				85. SHOULDER.				85. SIDE.				85. HIP.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	6.00	1.50	5.00	2.00	5.25	5.25	4.00	5.00	4.50	7.50	5.00	8.50	5.25	5.00	5.00	5.50
	4.00	1.25	4.25	3.00	3.50	6.25	3.75	5.75	5.00	8.25	4.00	6.00	4.50	6.75	3.00	1.75
	3.00	2.50	3.00	2.25	3.75	7.00	4.25	9.00	4.00	4.50	3.00	7.00	6.00	6.00	5.25	3.00
	6.00	2.75	4.25	1.75	5.00	4.50	3.50	4.50	4.00	9.25	3.00	5.25	4.50	2.75	4.75	5.25
	5.75	3.25	4.50	2.50	4.50	9.00	3.75	5.50	4.00	6.00	4.00	7.00	6.00	4.00	5.50	4.25
	4.75	3.00	5.25	1.25	3.00	6.00	3.50	5.75	5.50	9.50	3.50	8.00	3.25	6.00	5.00	6.00
	3.75	1.00	5.50	3.00	2.75	5.00	2.75	5.75	6.25	8.75	3.75	7.50	4.00	5.25	4.25	2.25
	6.25	1.50	4.75	2.00	3.50	6.00	2.75	6.50	3.00	6.00	3.25	6.25	4.50	5.50	4.50	3.00
	6.50	2.00	4.00	3.00	3.25	6.50	4.00	7.00	4.00	5.75	3.00	4.75	3.00	2.50	4.00	1.50
	5.00	4.00	4.75	1.75	3.00	7.00	3.75	4.50	3.00	5.50	3.25	4.50	3.75	1.00	3.25	5.00
	2.50	1.75	3.75	1.50	3.00	5.50	4.00	8.75	3.00	7.50	6.00	7.00	4.25	3.25	3.00	5.00
	5.00	4.50	3.50	2.25	2.75	7.75	3.75	5.00	4.00	9.00	3.00	4.50	4.00	2.75	3.50	1.00
	4.50	1.25	4.00	2.50	4.25	8.00	3.00	4.00	3.50	7.00	3.00	7.00	4.75	5.75	4.25	5.75
	2.25	2.00	8.25	5.25	4.00	5.00	5.00	8.00	4.25	7.50	4.25	8.50	5.50	2.25	4.50	5.00
	6.50	3.50	8.00	1.75	3.25	6.50	4.75	7.00	3.00	7.00	3.50	6.00	3.00	3.25	3.00	1.25
Total	71.75	35.75	72.75	35.75	54.75	95.25	56.50	92.00	61.00	109.00	55.50	98.00	65.25	62.00	62.75	55.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	8.25	127.34	5.25	26.25	5.25	81.03	9.00	45.00	6.25	96.47	9.50	47.50	6.00	92.61	6.75	33.75
Lowest	2.25	34.73	1.00	5.00	2.75	42.45	4.00	20.00	3.00	46.30	4.50	22.50	3.00	46.30	1.00	5.00
Average	4.82	74.39	2.38	11.90	3.71	57.26	6.24	31.20	3.88	59.89	6.92	34.60	4.27	65.91	3.92	19.60
Tests above average	13		12		16		14		15		17		15		16	
Tests below average	17		18		14		16		15		13		15		14	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

MERINO.

Catalogue number of samples..	86. SHOULDER.				86. SIDE.				86. HIP.				87. SHOULDER.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	4.50	7.75	4.00	6.75	10.25	3.75	7.50	3.75	4.00	5.00	4.50	6.00	5.00	6.75	6.25	6.00
	3.25	5.75	5.50	7.50	8.00	7.25	4.00	3.00	3.00	3.50	3.00	2.25	6.00	8.75	5.50	8.00
	5.25	8.25	3.25	4.75	4.00	3.25	5.50	3.00	5.00	1.75	4.25	3.25	3.75	7.75	5.50	4.75
	4.75	6.00	5.50	8.75	6.50	3.00	4.00	6.00	4.25	4.00	4.00	3.00	5.00	7.25	4.25	4.75
	6.25	8.00	3.50	7.75	4.25	2.00	10.50	7.25	15.00	8.50	3.75	4.25	4.75	6.45	5.75	8.00
	3.75	7.50	4.50	6.55	3.00	3.25	5.00	3.00	6.50	2.25	4.50	3.00	3.75	6.75	5.00	7.00
	4.75	4.75	5.25	7.00	5.00	3.00	8.00	7.50	7.25	3.50	5.00	3.50	4.75	4.75	6.00	6.00
	3.75	4.25	5.00	5.75	3.00	2.25	4.00	3.50	4.00	2.00	4.50	4.00	7.75	5.75	4.75	6.25
	4.00	5.75	3.25	5.50	4.50	6.00	3.25	4.50	4.75	2.75	12.75	4.00	6.00	7.00	6.25	7.00
	5.75	8.25	4.50	6.25	8.50	6.00	5.00	7.00	8.00	5.75	11.00	3.75	4.75	5.75	5.50	7.75
	5.00	6.75	6.00	7.75	3.50	5.00	4.75	4.50	7.50	4.00	11.50	6.25	4.50	7.00	4.75	5.50
	5.25	7.25	4.00	6.00	5.00	2.25	4.25	4.00	3.75	4.00	4.00	5.00	4.25	6.75	4.50	6.50
	3.75	4.25	4.50	6.50	4.25	5.00	7.00	6.75	5.25	6.00	4.50	4.50	6.25	6.75	5.25	5.25
	4.00	4.25	5.00	8.25	6.75	4.25	5.00	6.50	6.50	6.25	6.25	5.00	5.00	7.50	5.25	7.00
	5.25	6.25	5.50	5.75	6.75	7.75	8.50	7.00	5.00	7.50	4.50	4.00	5.25	8.00	4.75	4.75
Total	69.00	92.00	69.25	100.50	88.25	70.50	81.25	87.25	89.75	66.75	88.00	62.75	79.25	103.25	80.25	95.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	6.25	96.47	8.75	43.75	10.50	162.06	8.00	40.00	15.00	231.52	8.50	42.50	7.75	119.62	8.75	43.75
Lowest	3.25	50.16	4.25	21.25	3.00	46.30	2.25	11.25	3.00	46.30	1.75	8.75	4.25	65.60	4.75	23.75
Average	4.62	71.31	6.42	32.10	5.65	87.21	5.25	26.25	5.93	91.53	4.32	21.60	5.32	82.11	6.61	33.05
Tests above average	15		14		11		11		10		11		14		18	
Tests below average	15		16		19		19		20		19		16		12	

MERINO.

Catalogue number of samples..	87. SIDE.				87. HIP.				88. SHOULDER.				88. SIDE.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	5.25	6.25	5.75	7.00	4.50	3.00	7.00	4.00	4.00	6.75	5.50	7.00	6.50	7.75	4.50	6.25
	5.75	8.00	5.00	5.50	5.50	5.50	5.75	5.25	5.00	5.50	5.50	7.00	4.50	5.25	3.50	4.00
	6.50	7.50	5.25	7.00	5.00	4.00	6.50	6.00	5.25	6.50	4.75	5.00	3.75	5.25	4.75	6.00
	5.00	7.50	4.50	5.00	5.25	5.25	9.75	5.00	4.25	6.00	4.50	4.75	4.75	5.50	5.25	6.50
	5.00	6.75	4.25	5.50	7.00	7.00	8.00	4.00	4.75	5.75	5.25	5.75	4.50	6.00	3.50	5.00
	4.50	7.00	5.75	5.00	5.50	2.25	4.75	4.75	6.50	4.75	5.50	7.25	4.25	7.50	5.75	7.50
	5.25	6.50	4.75	7.00	3.50	4.75	6.75	5.00	4.00	5.75	6.00	9.00	5.50	4.25	4.50	6.00
	4.50	5.00	5.00	7.00	4.75	5.00	8.50	6.00	4.25	5.25	5.50	6.50	5.25	7.00	4.00	4.00
	4.50	5.75	5.75	7.25	5.00	2.00	4.00	3.00	3.25	3.75	5.50	7.75	5.00	5.75	3.50	3.25
	7.00	7.25	5.25	7.00	4.00	2.00	4.00	1.60	5.25	7.25	5.00	5.25	5.00	4.25	3.75	3.75
	6.00	7.00	5.50	7.25	5.00	4.50	5.75	6.50	4.25	5.00	5.25	6.75	4.75	6.25	3.50	6.50
	5.00	6.25	5.00	7.00	5.75	6.50	5.00	7.00	4.00	6.00	3.50	7.25	5.00	6.25	4.00	4.50
	6.00	7.00	5.75	7.50	5.00	3.00	4.00	1.50	3.75	6.00	3.00	4.00	5.00	8.75	6.50	7.00
	5.75	6.50	5.00	6.50	8.25	7.00	5.75	3.50	4.50	6.00	3.00	4.50	6.25	8.00	4.75	6.50
	5.00	5.25	4.75	7.50	5.50	1.00	5.00	5.25	3.50	6.50	4.50	4.00	5.75	6.25	3.75	7.00
Total	81.00	95.25	80.25	97.00	79.00	61.25	87.50	66.25	69.50	86.75	70.25	91.75	75.25	87.00	65.50	83.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	8.00	123.48	8.00	40.00	9.75	150.49	7.00	35.00	8.25	127.34	9.00	45.00	6.50	100.32	7.75	38.75
Lowest	4.25	65.60	3.00	15.00	3.50	54.02	1.00	5.00	3.00	46.30	3.75	18.75	3.50	54.02	3.25	16.25
Average	5.37	82.88	6.40	32.00	5.55	85.66	4.25	21.25	4.66	71.92	5.95	29.75	4.69	72.36	5.69	28.45
Tests above average	12		21		13		15		14		16		15		13	
Tests below average	18		9		17		15		16		14		14		12	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

Catalogue number of samples..	MERINO.															
	88. HIP.				89. SHOULDER.				89. SIDE.				89. HIP.			
	Strain.		Strain.		Strain.		Strain.		Strain.		Strain.		Strain.		Strain.	
	Stretch.		Stretch.		Stretch.		Stretch.		Stretch.		Stretch.		Stretch.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	6.50	3.00	4.25	5.50	5.00	3.75	6.50	4.00	9.00	4.00	4.25	3.00	11.00	6.50	4.25	5.25
	8.00	5.00	6.75	6.00	4.25	8.00	4.25	1.25	7.75	3.25	6.75	7.50	5.50	7.00	6.00	4.00
	11.50	5.75	6.25	2.25	4.00	8.25	5.25	5.25	8.25	8.00	4.00	3.00	5.00	5.50	5.00	5.50
	5.75	7.75	4.00	1.00	4.25	6.25	9.00	4.25	4.50	5.00	4.00	6.75	4.75	3.00	7.00	3.75
	5.00	4.25	4.50	5.00	7.50	7.25	4.25	5.75	5.00	5.50	4.25	5.75	5.00	3.00	5.00	6.25
	5.50	7.25	7.75	7.75	6.75	8.00	5.50	4.00	5.50	7.00	5.25	5.00	4.50	2.25	6.00	7.00
	6.00	1.75	7.00	5.00	8.00	5.00	3.00	4.25	4.75	5.25	8.00	6.75	4.00	5.75	5.75	6.75
	3.00	4.75	7.00	3.00	3.00	4.25	5.50	5.00	4.00	6.00	5.50	6.50	6.25	2.75	6.50	1.50
	6.50	1.50	14.00	5.00	6.00	1.25	4.50	6.75	11.00	5.00	5.25	7.75	6.25	4.25	6.00	1.75
	5.00	1.00	6.75	3.75	4.00	7.75	4.00	5.75	4.00	5.00	6.50	7.25	7.75	4.75	4.25	4.00
	11.00	6.25	8.25	1.75	6.00	9.50	5.00	8.25	8.00	8.00	4.75	6.00	10.00	6.50	7.00	7.50
	5.50	6.00	9.50	6.25	5.00	3.00	4.25	7.75	4.00	4.50	4.00	7.75	5.50	6.00	7.50	7.50
	9.00	2.00	5.50	2.75	3.25	5.00	5.25	4.00	4.00	4.00	5.00	6.00	12.75	6.50	7.00	3.75
	5.50	2.50	7.50	1.75	6.25	7.50	3.00	7.50	5.25	6.25	4.75	6.75	5.00	2.25	4.75	1.50
	6.75	2.75	7.50	4.75	4.50	7.75	4.25	5.00	4.50	7.00	5.75	7.75	5.50	3.00	8.50	2.75
Total	100.00	61.50	106.50	61.50	77.75	92.50	73.50	78.75	89.50	83.75	78.00	93.50	98.75	69.00	90.50	68.75

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	14.00	216.08	7.75	38.75	9.00	138.91	9.50	47.50	11.00	169.78	8.00	40.00	12.75	196.79	7.50	37.50
Lowest	3.00	46.30	1.00	5.00	3.00	46.30	1.25	6.25	4.00	61.74	3.25	16.25	4.00	61.74	1.50	7.50
Average	6.88	106.19	4.10	20.50	5.04	83.35	5.71	28.55	5.58	86.12	5.90	29.50	6.31	97.39	4.59	22.95
Tests above average	12		16		12		15		9		17		10		15	
Tests below average	18		14		18		15		21		13		20		15	

Catalogue number of samples..	MERINO.															
	90. SHOULDER.				90. SIDE.				90. HIP.				96.			
	Strain.		Strain.		Strain.		Strain.		Strain.		Strain.		Strain.		Strain.	
	Stretch.		Stretch.		Stretch.		Stretch.		Stretch.		Stretch.		Stretch.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	5.50	5.25	5.25	5.75	5.00	5.00	6.00	6.00	4.75	2.00	7.50	6.50	1.25	2.50	3.00	2.75
	5.25	4.75	5.00	4.25	5.00	5.25	8.00	6.00	6.25	2.75	7.00	6.75	3.50	7.50	2.00	5.25
	4.00	4.75	5.25	5.25	6.50	4.50	5.00	2.50	6.00	1.00	4.50	5.00	3.00	8.00	2.50	6.00
	6.50	5.50	7.50	7.75	10.25	7.00	5.00	5.75	9.25	5.00	8.00	2.00	3.50	5.50	3.00	7.25
	5.00	3.25	3.25	2.00	8.00	6.50	4.00	6.50	10.75	4.75	4.75	3.25	2.50	6.00	2.00	4.50
	3.25	2.75	5.50	5.00	5.75	4.00	6.00	7.00	5.00	1.50	9.00	3.25	2.50	5.00	2.50	7.50
	3.50	3.25	3.25	3.00	6.50	2.75	6.75	7.00	7.00	4.75	6.00	2.75	3.25	5.25	1.50	2.25
	3.50	2.25	6.50	3.50	6.00	7.25	5.50	2.50	7.50	3.75	7.00	6.00	2.25	2.00	1.50	5.25
	6.50	6.00	6.25	6.25	5.00	5.25	5.75	7.50	7.00	5.75	12.00	4.50	3.25	9.00	2.00	4.75
	5.00	3.75	6.50	4.50	6.00	4.75	6.50	4.00	5.00	4.25	6.00	1.75	2.00	2.25	2.75	6.00
	6.25	6.75	4.00	3.25	5.25	4.50	5.25	5.00	4.25	2.50	9.50	2.75	3.25	5.75	1.75	7.00
	3.25	3.75	5.50	4.50	4.50	3.50	4.75	4.50	5.00	4.00	11.25	5.00	3.00	6.25	2.00	6.75
	4.50	5.75	6.25	5.00	4.50	2.50	6.50	6.00	6.75	1.75	5.75	2.25	2.00	4.50	2.50	7.25
	4.50	5.25	4.00	4.50	5.00	5.25	4.75	2.25	5.00	1.00	4.75	2.25	3.25	7.25	3.00	5.00
	6.25	3.75	3.25	3.25	9.00	6.25	6.25	4.25	10.25	2.00	6.00	2.00	1.75	6.75	2.25	8.00
Total	72.75	66.75	77.25	67.75	92.25	74.25	86.00	76.75	99.75	46.75	109.00	56.00	40.25	82.50	34.25	85.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	7.50	115.76	7.75	38.75	10.25	158.20	7.50	37.50	12.00	185.22	6.75	33.75	3.50	54.02	9.00	45.00
Lowest	3.25	50.16	2.00	10.00	4.00	61.74	2.25	11.25	4.25	65.60	1.00	5.00	1.25	19.29	2.00	10.00
Average	5.00	77.17	4.48	22.40	5.94	91.68	5.03	25.15	6.96	107.43	3.43	17.15	2.48	38.28	5.60	28.00
Tests above average	15		17		14		15		14		13		17		15	
Tests below average	12		13		16		15		16		17		13		15	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

MERINO.

Catalogue number of samples..	97.				98.				99a.				99.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	2.75	[illegible]	2.00	2.25	4.50	[illegible]	3.00	7.25	3.00	6.75	3.50	8.75	3.25	3.50	3.00	4.00
	2.50	5.00	1.50	1.50	2.00	2.50	3.25	6.25	2.00	2.50	1.25	3.75	2.50	3.50	3.00	7.25
	2.75	7.00	2.75	5.25	4.25	8.75	2.00	4.50	2.25	7.25	2.25	3.00	2.75	5.50	4.00	8.00
	1.50	4.75	4.25	8.75	2.00	4.00	2.50	5.50	1.50	2.00	2.50	8.00	3.25	4.25	1.50	5.75
	2.00	3.00	2.75	5.75	3.75	7.50	1.50	5.00	4.50	2.00	1.25	5.00	2.00	4.50	4.00	4.25
	2.75	5.25	2.50	6.00	3.00	7.00	3.00	8.00	3.00	8.00	3.25	6.75	2.50	2.00	3.25	5.25
	3.75	3.00	2.25	4.75	1.50	1.00	3.50	6.50	2.50	7.00	3.00	4.75	2.25	3.00	4.25	7.75
	2.25	5.75	4.00	8.00	3.25	5.00	3.75	8.00	2.75	4.00	3.75	4.50	2.00	2.00	2.75	9.00
	3.25	8.00	1.75	5.50	2.50	4.75	1.75	5.75	3.00	6.50	1.00	4.75	1.75	4.00	3.00	8.50
	3.25	8.50	1.50	2.00	1.75	2.00	3.25	4.00	2.00	7.75	3.50	7.25	2.00	4.25	3.00	9.00
	2.00	4.75	2.25	5.75	2.25	6.75	3.50	6.00	1.25	7.00	3.00	6.25	4.25	7.75	3.00	4.00
	2.25	5.75	2.25	5.75	3.00	4.00	3.00	8.25	3.50	7.50	3.00	6.25	3.00	5.75	3.00	3.00
	3.00	3.75	1.50	5.00	3.00	7.00	3.00	8.00	3.50	8.00	2.75	7.00	2.75	7.00	2.25	6.75
	2.50	6.50	2.25	6.75	4.00	7.25	2.50	7.00	2.25	3.00	4.00	7.00	3.25	7.50	2.00	8.50
	3.00	4.25	2.00	1.75	3.00	7.50	3.75	7.50	3.50	7.25	3.00	4.25	2.25	3.00	3.25	7.50
Total	37.50	88.25	35.50	74.75	43.75	83.00	43.25	93.00	41.50	93.00	41.00	87.00	39.75	70.00	44.25	98.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	4.25	65.60	8.75	43.75	4.50	69.46	8.75	43.75	4.50	69.46	9.00	45.00	4.25	65.60	9.00	45.00
Lowest	1.50	23.15	1.50	7.50	1.00	23.15	1.00	5.00	1.00	15.44	2.00	10.00	1.50	23.15	2.00	10.00
Average	2.43	37.51	5.43	27.15	2.90	44.76	5.96	29.80	2.75	42.44	6.00	30.00	2.80	43.22	5.60	28.00
Tests above average	13		16		19		18		17		19		15		14	
Tests below average	17		14		11		12		11		11		15		16	

MERINO.

Catalogue number of samples..	100. SHOULDER.				101.				102.				[illegible]			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	2.75	7.25	3.50	7.75	3.00	4.75	2.50	6.75	3.00	6.00	2.25	4.50	7.25	7.75	4.25	6.00
	2.25	3.75	2.00	3.00	3.00	7.75	2.50	6.00	3.25	5.75	2.50	7.00	5.50	7.00	5.25	8.00
	2.50	7.25	2.25	5.50	3.25	8.00	2.25	5.50	3.00	7.50	1.75	2.00	5.50	4.75	3.75	5.75
	2.75	3.25	3.50	7.25	2.50	5.25	2.50	7.00	2.75	4.00	1.75	4.50	4.75	8.50	5.00	2.75
	3.50	7.00	2.00	7.50	2.50	4.75	2.00	6.00	3.25	5.50	1.25	2.00	6.50	3.00	5.50	7.00
	3.50	7.00	2.50	3.00	3.00	8.00	3.25	8.75	3.25	3.00	3.00	1.50	4.00	3.00	3.00	5.00
	2.25	4.75	2.50	5.00	2.00	8.25	1.50	1.00	1.50	4.00	4.00	4.25	4.50	6.00	4.25	0.75
	2.50	4.25	2.25	3.25	1.75	2.75	2.25	5.00	1.25	1.50	3.00	7.50	3.75	2.25	4.75	5.75
	2.75	5.00	3.00	6.00	3.00	8.00	3.00	9.50	3.75	7.00	1.50	2.75	3.00	4.25	3.00	4.50
	2.50	5.00	3.50	5.00	2.50	7.75	3.50	7.50	3.00	4.25	3.75	6.75	4.00	6.50	6.75	8.00
	2.50	6.25	2.25	7.50	2.50	7.00	1.50	1.75	1.75	4.50	3.25	6.00	3.25	5.25	5.00	5.00
	1.75	3.00	2.75	7.00	2.25	6.00	2.50	3.00	2.00	5.25	3.00	5.00	3.75	2.00	2.75	2.00
	3.25	6.75	1.75	5.50	1.75	1.00	2.25	5.00	2.00	5.00	2.75	7.25	3.00	3.25	4.00	5.00
	2.25	3.25	4.25	7.25	2.00	7.50	3.75	8.25	2.25	7.00	2.25	5.00	6.25	7.25	4.00	8.00
	2.00	5.00	3.00	4.75	4.00	8.75	2.25	0.00	2.25	3.75	1.50	2.50	5.25	4.50	4.25	4.50
Total	38.50	70.25	35.00	85.25	39.50	95.50	36.00	88.00	37.25	77.00	37.50	82.00	70.25	77.75	68.50	84.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	4.25	65.60	7.75	38.75	4.00	61.74	9.50	47.50	4.00	61.74	7.50	37.50	7.25	111.90	8.50	42.50
Lowest	1.75	27.01	2.50	12.50	1.50	23.15	1.00	5.00	1.25	19.29	1.50	7.50	2.75	42.44	2.00	10.00
Average	2.61	40.28	5.38	26.90	2.51	38.74	6.11	30.55	2.49	38.43	4.86	24.30	4.62	71.31	5.39	26.95
Tests above average	13		11		9		15		15		12		13		15	
Tests below average	18		16		21		15		15		14		17		15	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

Catalogue number of samples..	MERINO.								CROSS-BREEDS.							
	104.				104*a*.				14.				15.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	4.00	5.50	3.75	5.25	4.25	6.75	3.50	6.25	3.50	7.75	3.00	2.00	4.75	5.00	2.00	4.25
	2.50	3.75	3.25	5.75	4.00	6.25	5.00	7.75	3.50	5.00	3.25	7.25	2.50	5.25	2.25	4.00
	4.50	6.50	4.50	7.00	4.00	5.75	4.75	6.25	4.00	7.00	4.00	6.75	3.25	6.25	3.75	4.75
	5.50	6.50	2.75	7.00	3.50	7.25	2.25	6.75	2.50	2.50	5.00	6.00	2.00	6.75	2.00	6.25
	3.00	4.00	5.25	7.00	2.50	4.00	3.50	6.50	4.00	6.25	4.50	4.00	2.00	2.00	2.50	5.75
	4.50	6.00	4.25	4.75	4.00	6.50	4.50	7.00	4.00	3.25	2.75	5.00	4.00	6.75	3.25	6.25
	3.00	4.50	7.50	7.75	4.25	6.00	4.00	4.00	4.00	7.00	4.25	5.50	4.25	6.00	6.50	4.25
	3.00	5.00	6.75	7.50	3.00	5.00	4.00	7.50	3.75	2.00	4.25	5.25	4.00	6.00	2.25	6.00
	3.75	5.75	4.00	3.75	7.00	7.00	4.25	6.25	4.00	3.00	3.50	1.75	2.75	5.75	2.25	4.75
	5.00	3.50	3.50	7.00	4.25	8.00	4.00	7.00	2.75	2.00	4.25	7.75	3.00	5.25	3.00	5.75
	4.00	6.00	3.75	6.75	4.25	5.75	3.75	5.75	4.50	8.25	5.00	6.75	3.25	6.00	5.00	5.25
	4.25	6.25	3.75	5.50	2.25	2.75	3.00	6.00	2.50	3.00	2.75	5.00	2.50	5.00	2.25	3.75
	5.00	5.75	3.25	2.25	3.00	2.25	1.75	3.00	4.00	7.00	5.00	7.50	2.75	6.75	3.75	7.00
	3.50	4.00	2.25	2.25	4.00	3.75	2.75	3.25	3.50	5.25	3.00	1.00	4.25	2.75	3.50	6.25
	4.50	7.25	8.00	6.25	3.50	4.25	2.50	3.50	4.00	5.50	3.25	6.50	3.75	4.50	2.75	4.75
Total	60.00	80.25	66.50	85.75	57.75	81.25	53.50	86.75	54.50	74.75	57.75	78.00	49.00	80.00	47.00	79.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	8.00	123.48	7.75	38.75	7.00	108.04	8.00	40.00	5.00	77.17	8.25	41.25	6.50	100.33	7.00	35.00
Lowest	2.25	34.73	2.25	11.25	1.75	27.01	2.25	11.25	2.50	38.59	1.00	5.00	2.00	30.87	2.00	10.00
Average	4.21	64.98	5.53	27.65	3.70	57.10	5.60	28.00	3.74	57.73	5.09	25.45	3.20	49.39	5.30	26.50
Tests above average	13		17		15		20		17		17		14		15	
Tests below average	17		13		15		10		13		13		10		15	

Catalogue number of samples..	CROSS-BREEDS.															
	19.				20.				24.				111.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	13.50	7.00	11.25	6.50	9.00	6.75	4.75	5.00	3.50	4.00	7.00	4.00	24.25	6.25	17.75	7.25
	10.00	1.25	13.50	4.50	7.25	5.25	5.25	7.00	5.50	6.50	3.00	3.00	18.50	4.75	25.00	7.50
	15.00	7.50	11.00	2.75	4.00	2.50	7.00	8.00	10.00	7.75	2.75	3.50	11.00	5.50	23.00	7.00
	20.00	7.25	12.00	2.25	3.00	3.25	10.00	7.75	5.25	6.25	2.75	1.75	23.75	6.50	19.25	7.50
	12.50	1.75	12.00	2.00	5.50	4.75	6.00	4.25	6.00	2.00	5.00	3.00	20.00	7.00	8.75	3.00
	8.25	1.00	10.00	4.00	6.75	3.25	6.00	6.75	5.50	1.50	9.50	4.75	30.00	8.00	25.00	7.00
	7.25	2.00	10.75	6.00	9.25	5.00	7.25	2.75	4.50	4.00	6.75	4.00	27.00	7.00	24.00	7.00
	12.50	2.75	12.00	5.75	7.75	5.75	5.75	3.25	9.50	7.50	3.00	4.50	17.00	7.00	22.75	7.00
	13.00	6.50	11.75	2.75	8.25	5.50	6.00	2.25	7.75	5.00	8.00	6.00	22.00	6.00	24.00	7.50
	11.00	2.00	13.25	1.25	6.00	5.00	5.50	2.25	5.50	2.50	7.50	7.75	28.50	8.00	22.00	8.00
	8.75	1.00	8.00	1.00	6.75	3.00	9.75	6.75	5.50	5.50	8.50	8.00	26.00	8.75	20.50	7.25
	10.00	2.75	13.00	4.25	4.00	2.75	9.00	7.75	3.00	1.75	5.50	8.00	26.75	7.75	24.00	7.75
	9.50	1.00	15.00	4.00	8.75	7.25	6.50	5.75	4.00	7.75	5.25	6.50	20.50	6.00	25.75	7.50
	12.50	3.75	13.00	2.25	6.75	6.75	8.75	8.00	7.50	4.00	6.00	4.00	27.25	6.50	26.50	7.00
	13.00	4.75	11.00	1.75	5.00	5.25	5.25	2.00	9.00	7.00	6.50	2.75	18.50	7.00	27.00	7.25
Total	176.75	52.25	176.50	51.00	98.00	72.00	102.75	70.50	92.00	73.00	87.00	71.50	341.00	102.00	341.25	105.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	20.00	308.69	7.50	37.50	10.00	154.35	8.00	40.00	10.00	154.35	8.00	40.00	30.00	463.04	8.75	43.75
Lowest	7.25	111.90	1.00	5.00	3.00	46.30	2.00	10.00	2.75	42.45	1.50	7.50	8.75	135.05	3.00	15.00
Average	11.78	181.82	3.44	17.20	6.69	103.26	5.05	25.25	5.97	92.15	4.82	24.10	22.74	350.98	6.92	34.60
Tests above average	16		13		15		15		14		13		19		22	
Tests below average	14		17		15		15		16		17		11		8	

TABLE XV.—*Results of actual tests of strain and stretch*—Continued.

	CROSS-BREEDS.											
Catalogue number of samples	126.				128.				129.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.		*mm.*		*grams.*		*mm.*		*grams.*		*mm.*	
Actual measurements in grams and millimeters.	12.00	2.00	6.00	4.00	4.75	8.00	4.25	5.75	10.00	7.00	8.75	[illegible]
	4.50	[illegible]	9.50	2.00	3.00	4.25	3.00	1.00	7.00	6.75	10.25	4.75
	9.00	7.00	[illegible]	5.50	4.00	4.00	4.00	5.75	9.00	[illegible]	[illegible]	4.50
	7.00	1.50	6.00	3.00	4.25	5.25	3.50	7.00	5.25	4.25	7.75	5.75
	8.75	7.00	6.50	1.00	5.00	7.75	4.00	6.75	6.75	2.75	6.75	4.00
	[illegible]	3.00	14.75	7.00	3.50	5.00	3.25	3.25	4.75	6.50	3.75	5.25
	7.00	[illegible]	[illegible]	3.25	2.25	[illegible]	3.75	3.00	6.50	6.50	8.75	6.75
	7.00	5.00	7.25	1.00	2.75	[illegible]	3.25	1.50	6.50	7.00	7.00	4.75
	7.25	[illegible]	4.00	[illegible]	[illegible]	4.75	3.75	1.00	9.25	7.00	7.25	7.25
	[illegible]	[illegible]	7.00	2.00	3.00	2.75	3.25	4.50	10.75	[illegible]	3.00	3.25
	5.00	[illegible]	7.75	6.50	4.25	2.75	3.25	7.25	5.50	[illegible]	8.00	5.75
	5.75	[illegible]	7.50	3.25	5.25	7.75	4.25	6.75	4.75	3.50	6.00	3.75
	9.50	6.50	6.25	4.25	3.75	[illegible]	2.75	4.25	7.75	5.25	7.00	4.75
	6.00	1.25	6.50	1.00	3.00	6.00	3.50	4.00	[illegible]	7.25	6.25	6.00
	11.50	2.25	5.75	2.75	3.25	1.25	3.75	2.75	[illegible]	5.75	11.25	7.75
Total	[illegible]	[illegible]	119.25	[illegible]	54.00	69.00	53.50	[illegible]	112.00	80.00	112.25	82.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*grams.*	*per ct.*
Highest	14.75	227.68	7.00	35.00	5.25	80.03	[illegible]	40.00	11.25	173.64	[illegible]	40.00
Lowest	4.00	61.74	1.00	5.00	[illegible]	30.87	1.00	[illegible]	3.00	46.30	[illegible]	12.50
Average	[illegible]	121.62	[illegible]	16.10	3.58	55.26	4.45	22.25	7.48	115.45	5.41	27.05
Tests above average	11		11		14		15		14		15	
Tests below average	[illegible]		19		14		15		16		15	

TABLE XVI.—*Individual extremes and averages, showing influence of breed upon strain and stretch.*

Catalogue No. of samples.	Portion of fleece represented.	STRAIN.						STRETCH.					
		Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
	COTSWOLD.	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per ct.*	*mm.*	*per ct.*	*mm.*	*per ct.*
34	Shoulder	41.00	632.82	16.50	254.67	25.66	396.05	8.00	40.00	2.00	10.00	6.44	32.20
	Side	51.00	771.73	20.00	308.69	35.75	551.79	9.00	45.00	1.25	6.25	6.09	30.45
	Hip	62.00	956.95	27.50	424.45	41.24	636.52	10.00	50.00	5.25	26.25	7.99	39.95
35	Shoulder	55.75	860.43	21.00	324.13	33.40	515.52	10.00	50.00	5.75	28.75	7.30	36.50
	Side	61.00	941.51	23.00	354.99	40.00	618.93	9.50	47.50	1.50	7.50	7.57	37.85
	Hip	64.00	987.81	30.50	470.76	45.45	701.50	9.50	47.50	3.00	15.00	7.80	39.00
36	Shoulder	31.00	478.47	15.50	239.24	24.35	375.83	8.50	42.50	1.50	7.50	6.01	30.05
	Side	38.75	598.09	9.50	146.63	24.27	374.60	10.75	53.75	1.25	6.25	5.93	29.65
	Hip	39.00	601.95	19.75	304.83	29.20	450.69	9.00	45.00	2.00	10.00	7.50	37.50
37	Shoulder	51.00	787.16	15.50	239.24	32.20	496.99	8.75	43.75	4.00	20.00	6.66	33.30
	Side	38.00	586.52	11.00	169.78	26.36	406.86	9.00	45.00	1.00	5.00	4.75	23.75
	Hip	40.00	617.38	18.00	277.82	30.35	468.44	9.50	47.50	0.50	2.50	6.33	31.43
38	Shoulder	47.00	725.43	16.00	246.95	29.96	462.42	8.75	43.75	5.00	25.00	6.84	34.20
	Side	52.50	810.32	20.00	308.69	36.26	559.66	10.00	50.00	4.00	20.00	7.62	38.10
	Hip	60.00	926.08	20.00	308.69	47.43	732.06	10.00	50.00	3.00	15.00	8.36	41.80
39	Shoulder	47.75	737.00	16.00	246.95	34.32	529.72	8.50	42.50	5.25	26.25	6.83	34.16
	Side	57.00	879.77	25.50	393.58	39.61	611.36	9.50	47.50	3.25	16.25	7.83	39.15
	Hip	40.50	625.10	23.50	362.71	32.72	505.02	9.00	45.00	6.00	30.00	8.20	41.00
170		44.00	679.12	12.50	192.93	30.83	475.85	24.00	120.00	2.50	12.50	11.10	55.55
171		30.50	470.76	10.50	162.06	20.38	314.56	10.00	50.00	1.00	5.00	7.40	37.00
172		30.00	463.04	9.00	138.91	17.16	264.86	10.75	53.75	1.00	5.00	6.38	31.90
173		44.00	679.12	13.00	200.65	27.85	429.85	10.00	50.00	1.25	6.25	6.36	31.80
174		40.50	625.10	12.50	192.93	25.19	388.80	20.50	102.50	2.00	10.00	9.58	47.90
175		48.50	748.58	16.00	246.95	35.54	548.55	25.00	125.00	2.00	10.00	12.25	61.25
176		47.50	733.14	12.00	185.22	32.91	507.95	26.00	130.00	1.25	6.25	12.36	61.80
177		44.75	690.70	15.50	239.24	31.17	740.86	21.75	10.88	2.25	11.25	10.47	52.35
178		45.50	702.27	12.00	185.22	26.86	414.57	10.50	52.50	1.50	7.50	6.64	33.20
179		38.50	594.23	13.75	212.23	26.49	408.86	8.75	43.75	2.50	12.50	6.53	32.65
180		44.00	679.12	21.00	324.13	31.13	480.48	9.00	43.33	1.25	6.25	7.26	36.30
181		49.50	764.01	11.00	169.78	35.04	540.83	10.00	50.00	1.25	6.25	7.10	35.50
182		42.00	648.25	12.00	185.22	28.63	441.89	8.75	43.75	1.00	5.00	6.58	32.90
183		36.75	567.22	10.50	162.06	24.08	371.66	9.75	48.75	1.25	6.25	6.97	34.85
184		43.00	663.69	18.75	289.40	31.25	482.33	8.25	41.25	1.25	6.25	5.43	27.15
185		34.00	524.78	15.00	321.52	24.79	382.62	8.00	40.00	1.00	5.00	4.43	22.15
186		42.25	652.11	17.75	273.96	27.78	428.77	8.25	41.25	1.00	5.00	5.22	26.10
187		40.75	628.96	16.25	250.81	27.75	428.31	8.75	43.75	1.00	5.00	5.21	26.05
188		30.75	476.61	5.00	77.17	14.58	225.04	7.50	37.50	0.25	1.25	2.03	10.15
189		43.25	667.55	13.75	212.23	32.03	494.37	8.00	40.00	1.00	5.00	6.09	30.45
190		40.00	617.38	12.50	192.93	27.23	420.28	8.25	41.25	0.25	1.25	5.23	26.15
	Average	44.54	687.46	16.10	248.50	30.44	469.83	11.00	55.00	2.13	10.65	7.09	35.45
	LEICESTER.												
	Leicester	30.00	463.04	15.50	239.24	23.70	365.80	8.00	40.00	2.50	12.50	5.61	28.05
	LINCOLN.												
59	Shoulder	36.00	555.65	17.00	262.39	26.87	414.73	8.00	40.00	5.00	25.00	6.98	34.90
	Side	36.00	555.65	10.00	154.35	23.42	361.48	9.00	45.00	4.00	20.00	7.52	37.60
	Hip	45.00	694.56	23.00	355.00	34.40	530.95	8.75	43.75	5.00	25.00	7.16	35.80
60	Shoulder	48.50	748.58	20.00	308.69	23.75	520.30	8.50	42.50	6.00	30.00	7.41	37.05
	Side	52.00	802.60	24.00	370.42	37.77	582.96	10.00	50.00	6.25	31.25	7.90	39.50
	Hip	49.00	756.30	25.00	393.58	35.89	553.95	8.75	43.75	5.00	25.00	7.39	36.95
61	Shoulder	29.25	451.46	20.25	312.55	23.88	368.58	9.50	47.50	5.00	25.00	7.38	36.90
	Side	31.00	478.47	18.50	285.54	25.55	394.35	10.25	51.25	7.25	36.25	8.67	43.35
	Hip	42.50	655.97	19.25	297.12	28.80	444.52	11.00	55.00	6.00	30.00	8.24	41.20
164		32.25	497.77	14.25	219.94	23.18	357.77	9.25	46.25	1.25	6.25	6.58	32.90
165		27.50	424.45	11.50	177.50	17.72	273.50	8.00	40.00	0.75	3.75	4.67	23.35
166		30.00	463.04	7.00	108.04	20.62	318.26	8.75	43.75	1.25	6.25	6.16	30.80
167		33.00	509.34	11.25	173.64	22.75	351.14	9.50	47.50	1.00	5.00	6.63	33.15
168		25.25	389.72	10.00	154.35	17.75	273.96	9.50	47.50	1.25	6.25	6.27	31.35
169		33.50	517.06	8.50	131.19	22.50	347.28	12.75	63.75	2.00	10.00	7.14	35.70
	Average	36.72	566.76	15.97	246.49	25.66	396.05	9.43	47.15	3.80	19.00	7.07	35.35
	SOUTHDOWN.												
62	Shoulder	17.75	273.96	8.50	131.19	12.46	192.31	6.50	32.50	1.00	5.00	3.06	15.30
	Side	19.25	297.12	8.00	123.48	11.60	179.04	8.00	40.00	3.25	16.25	6.05	30.25
	Hip	19.00	293.26	7.50	115.76	13.41	206.98	8.00	40.00	4.00	20.00	6.33	31.65
63	Shoulder	20.00	308.69	7.50	115.76	13.68	211.15	8.00	40.00	4.50	22.50	6.19	30.95
	Side	22.00	339.56	6.00	92.60	11.70	180.59	10.00	50.00	2.50	12.50	6.88	34.40
	Hip	22.00	339.56	11.00	169.78	16.33	252.05	7.75	38.75	3.50	17.50	5.81	29.05
91	Shoulder	14.75	227.66	6.75	104.18	11.71	180.74	7.00	35.00	1.50	7.50	4.10	20.50
	Side	19.50	300.97	8.00	123.48	13.24	204.35	9.00	45.00	3.50	17.50	5.75	28.75
	Hip	29.00	447.60	11.00	169.78	17.55	270.88	8.25	41.25	1.00	5.00	4.19	20.95
92	Shoulder	26.00	401.30	7.50	115.76	14.38	221.95	8.25	41.25	4.50	22.50	6.24	31.20
	Side	23.00	354.99	8.75	135.05	13.57	209.45	7.00	35.00	3.25	16.25	5.62	28.10
	Hip	33.00	509.34	13.00	200.65	21.46	331.23	8.00	40.00	1.00	5.00	4.54	22.70
93	Shoulder	20.00	308.69	6.50	100.32	12.54	193.55	8.25	41.25	1.50	7.50	4.55	22.75
	Side	21.00	324.13	9.25	142.77	14.15	218.40	7.75	38.75	2.50	12.50	5.60	28.00
	Hip	23.00	355.00	8.00	123.48	14.50	223.80	8.00	40.00	1.25	6.25	4.26	21.30
94	Shoulder	21.50	331.84	8.00	123.48	11.95	184.44	7.75	38.75	1.25	6.25	4.60	23.45
	Side	21.00	324.13	7.75	119.62	12.33	190.31	8.00	40.00	2.50	12.50	5.65	28.25
	Hip	26.50	409.02	9.25	142.77	18.73	289.09	7.00	35.00	1.50	7.50	4.77	23.85
95	Shoulder	15.00	231.52	7.25	111.90	10.80	166.69	8.00	40.00	2.50	12.50	5.46	27.30
	Side	14.00	216.08	4.50	69.46	9.26	142.92	8.50	42.50	1.50	7.50	4.90	24.50
	Hip	20.00	308.69	6.00	92.61	12.73	196.48	7.25	36.25	1.25	6.25	3.69	18.45
132		28.00	432.17	2.50	38.59	10.92	168.55	8.25	41.25	0.25	1.25	3.63	18.15
133		16.25	250.81	4.50	69.46	9.99	154.99	8.50	42.50	0.50	2.50	3.45	17.25
134		18.50	285.54	3.00	46.30	12.73	196.48	8.00	40.00	0.50	2.50	4.34	21.70
135		23.75	366.57	6.00	92.61	12.79	197.40	6.75	33.75	0.75	3.75	3.62	18.10
136		22.00	339.56	4.00	61.74	11.64	179.67	7.75	38.75	0.25	1.25	3.93	19.65
137		22.50	347.28	4.00	61.74	13.82	213.31	10.00	50.00	1.25	6.25	4.54	22.70
138		15.50	239.23	3.50	54.02	8.11	125.17	7.25	36.25	0.75	3.75	3.03	15.15
139		26.25	405.16	3.50	54.02	10.87	167.77	8.00	40.00	0.75	3.75	3.36	16.80
140		20.25	312.55	4.00	61.74	10.34	159.59	8.00	40.00	1.00	5.00	3.55	17.75
141		22.50	347.28	5.25	81.03	11.90	183.67	7.25	36.25	1.00	5.00	3.59	17.95
142		18.75	289.40	3.00	46.30	9.09	140.30	7.75	38.75	0.75	3.75	4.08	20.40

TABLE XVI.—*Individual extremes and averages, showing influence of breed upon strain and stretch*—Continued.

Catalogue No. of samples.	Portion of fleece represented.	STRAIN.						STRETCH.					
		Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
	SOUTHDOWN—continued.	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per ct.*	*mm.*	*per ct.*	*mm.*	*per ct.*
143		23.50	362.71	3.50	54.02	13.22	204.05	8.25	41.25	0.25	1.25	3.24	16.20
144		18.75	289.40	3.50	54.02	11.14	171.94	8.00	40.00	0.25	1.25	3.53	17.65
	Average	21.20	327.00	6.48	100.02	12.78	197.25	7.94	39.70	1.69	8.45	4.59	22.95
	OXFORD.												
64	Shoulder	47.75	737.00	15.00	246.95	31.94	492.98	8.25	41.25	1.75	8.75	5.22	26.10
	Side	47.00	725.44	22.00	339.56	30.99	478.32	10.00	50.00	4.00	20.00	7.46	37.30
	Hip	50.25	775.59	21.00	324.13	33.68	519.98	9.50	47.50	1.25	6.25	6.11	30.55
65	Shoulder	42.25	652.11	20.75	320.27	29.97	462.57	9.00	45.00	4.25	21.25	6.64	33.20
	Side	32.00	493.91	13.50	185.21	19.70	304.06	8.75	43.75	4.50	22.50	7.03	35.15
	Hip	46.75	721.57	18.50	285.54	27.00	532.01	9.00	45.00	1.50	7.50	5.97	29.85
66	Shoulder	31.00	478.47	12.00	185.22	20.00	308.78	8.50	42.50	2.00	10.00	5.58	27.90
	Side	39.75	613.52	11.50	177.50	24.84	383.40	10.25	36.16	6.00	30.00	8.46	42.30
	Hip	38.00	586.52	19.25	297.12	26.53	409.48	9.00	45.00	2.25	11.25	6.20	31.00
67	Shoulder	51.00	787.17	30.75	474.61	39.96	616.77	8.50	42.50	4.00	20.00	6.17	30.85
	Side	57.00	879.77	25.50	393.58	41.54	641.15	10.00	50.00	5.50	27.50	8.11	40.50
	Hip	59.00	910.64	20.50	316.41	37.67	581.42	8.25	41.25	2.00	10.00	6.31	31.55
	Average	45.15	696.87	19.15	295.67	30.43	469.67	9.08	45.40	3.25	16.25	6.61	33.05
	MERINO.												
30	Neck, top of wrinkle	20.00	308.69	9.00	138.91	13.61	210.07	8.25	41.25	2.50	12.50	5.43	27.15
	Neck, between wrinkle	12.25	189.07	6.50	100.33	9.18	141.69	8.75	43.75	3.25	16.25	5.48	27.40
	Shoulder	18.75	289.40	5.50	84.89	8.47	130.73	8.25	41.25	3.25	16.25	5.75	28.75
	Side	14.00	216.08	6.00	92.61	9.19	141.84	8.75	43.75	2.25	11.25	5.49	27.45
	Hip	12.25	189.07	5.75	88.75	8.76	135.21	8.25	41.25	2.75	13.75	5.68	28.40
61	Neck	10.00	154.35	8.25	50.10	5.00	77.17	8.00	40.00	2.00	10.00	4.28	21.40
	Side	12.00	185.22	3.75	57.88	5.88	90.76	8.75	43.75	1.75	8.75	6.25	31.25
	Hip	10.50	162.06	4.25	65.60	7.81	112.83	8.75	43.75	4.00	20.00	6.60	33.00
45	Neck, top of wrinkle	15.00	231.52	4.00	61.74	7.98	123.17	8.00	40.00	3.25	16.25	5.58	27.90
	Neck, between wrinkle	15.50	239.24	4.25	65.60	8.05	124.28	7.75	38.75	1.50	7.50	5.03	25.15
	Side	14.00	216.08	5.75	88.75	8.43	130.58	9.00	45.00	4.00	20.00	6.65	33.25
	Hip	20.00	308.69	5.50	84.89	12.46	192.16	8.00	40.00	0.50	2.50	4.21	21.05
46	Shoulder	9.50	146.63	3.50	54.02	5.53	85.35	8.00	40.00	1.50	7.50	5.17	25.85
	Side	14.00	216.08	4.00	61.74	6.35	113.44	10.00	50.00	1.50	7.50	6.21	31.05
	Hip	13.50	208.37	4.00	61.74	9.55	147.40	8.00	40.00	2.00	10.00	5.07	25.35
47	Shoulder	12.50	192.93	4.00	61.74	6.19	95.54	7.25	36.25	0.75	3.75	4.48	22.40
	Side	13.75	212.23	4.00	61.74	7.72	119.15	9.25	46.25	3.00	15.00	6.48	32.40
	Hip	27.00	416.73	4.75	73.31	13.22	204.05	8.00	40.00	2.00	10.00	4.63	23.15
48	Shoulder, top of wrinkle	15.75	243.09	3.50	54.02	8.23	127.80	8.25	41.25	2.00	10.00	5.30	26.50
	Shoulder, between wrinkle	13.25	204.51	4.00	61.74	7.83	120.78	8.25	41.25	2.75	13.75	6.35	31.75
	Side	15.75	243.09	4.00	61.74	8.43	130.11	9.75	48.75	3.00	15.00	6.41	32.05
	Hip	23.50	362.71	4.50	69.46	11.78	181.82	8.25	41.25	1.00	5.00	4.41	22.05
51	Shoulder	22.00	339.56	4.00	61.74	9.31	143.70	10.75	53.75	3.25	16.25	6.72	33.60
	Side	12.00	185.21	4.00	61.74	6.98	107.73	8.25	41.25	3.00	15.00	5.53	27.65
	Hip	26.50	409.02	4.25	65.60	10.70	165.15	8.00	40.00	1.00	5.00	4.95	24.75
52	Shoulder	5.25	81.03	2.00	30.87	3.48	54.71	8.50	42.50	3.50	17.50	6.69	33.45
	Side	7.50	115.76	3.00	46.30	4.53	69.92	9.00	45.00	3.00	15.00	6.90	34.50
	Hip	11.00	169.78	2.50	38.59	4.92	75.94	7.00	35.00	1.00	5.00	4.27	21.35
53	Shoulder	5.50	84.80	2.00	30.87	3.29	50.78	9.00	45.00	4.00	20.00	6.32	31.60
	Shoulder, top of wrinkle	25.00	385.86	6.50	100.32	10.54	162.68	7.50	37.50	3.25	16.25	5.45	27.25
	Shoulder, between wrinkle	8.50	131.19	3.25	50.16	5.70	88.00	7.75	38.75	2.00	10.00	4.83	24.15
	Side	8.00	123.48	3.00	46.30	4.48	69.14	8.50	42.50	1.50	7.50	5.73	28.75
	Hip	8.00	123.48	2.00	30.87	4.80	74.08	7.00	35.00	1.00	5.00	4.14	20.70
	Hip, top of wrinkle	32.50	501.62	7.75	119.62	18.05	278.59	8.00	40.00	2.00	10.00	5.06	25.30
	Hip, between wrinkle	9.50	146.63	2.50	38.59	5.62	86.74	7.75	38.75	1.50	7.50	4.61	23.05
54	Shoulder, top of wrinkle	29.00	447.60	4.00	61.74	10.63	164.07	8.50	42.50	1.00	5.00	3.86	19.30
	Shoulder, between wrinkle	7.50	115.76	2.75	42.44	5.28	81.49	8.00	40.00	1.75	8.75	5.10	25.50
	Hip, top of wrinkle	20.00	308.69	4.00	61.74	11.08	171.02	6.00	30.00	1.00	5.00	2.77	13.85
	Hip, between wrinkle	10.00	154.35	3.50	54.02	5.92	91.37	6.00	30.00	1.50	7.50	3.67	18.35
55	Shoulder, top of wrinkle	16.50	254.67	5.00	77.17	8.95	138.14	8.25	41.25	4.00	20.00	6.16	30.80
	Shoulder, between wrinkle	7.50	115.76	4.00	61.74	5.33	82.27	7.75	38.75	4.00	20.00	5.93	29.65
	Side	11.00	169.78	3.00	46.30	5.47	84.43	9.50	47.50	2.00	10.00	5.42	27.10
	Hip, top of wrinkle	11.50	177.50	2.00	30.87	5.74	88.59	8.50	42.50	1.00	5.00	3.97	19.85
	Hip, between wrinkle	9.00	138.91	2.75	42.44	5.45	84.12	9.00	45.00	1.50	7.50	4.60	23.00
56	Neck, top of wrinkle	26.00	401.29	8.00	123.48	13.31	205.43	8.00	40.00	4.00	20.00	6.61	30.05
	Shoulder, between wrinkle	9.00	138.91	3.25	50.16	5.56	85.82	8.25	41.25	3.00	15.00	5.58	27.90
	Side	9.00	138.91	3.00	46.30	5.93	91.99	8.00	40.00	2.00	10.00	5.19	25.94
	Hip, top of wrinkle	12.50	192.93	3.75	57.88	7.77	119.93	8.50	42.50	2.00	10.00	5.13	25.65
	Hip, between wrinkle	12.50	192.93	3.50	54.02	7.32	112.98	8.75	43.75	2.50	12.50	5.42	27.10
57	Shoulder, top of wrinkle	27.00	416.73	5.00	77.17	11.31	174.56	8.50	42.50	2.25	11.25	5.83	29.15
	Shoulder, between wrinkle	8.50	131.19	3.25	50.16	5.55	85.66	9.50	47.50	4.00	20.00	6.54	32.70
	Hip	14.00	216.08	5.75	88.75	8.65	133.51	8.25	41.25	2.75	13.75	5.81	29.05
58	Shoulder, top of wrinkle	10.50	162.06	3.25	50.16	6.18	95.39	7.50	37.50	1.50	7.50	4.67	23.35
	Shoulder, between wrinkle	9.25	142.77	3.00	46.30	5.68	87.68	8.00	40.00	1.25	6.25	5.26	26.30
	Hip, top of wrinkle	13.00	200.65	4.25	65.60	7.35	113.44	7.00	35.00	1.75	8.75	3.81	19.05
	Hip, between wrinkle	10.75	165.92	3.00	46.30	5.78	89.21	6.50	32.50	2.00	10.00	3.86	19.30
68	Shoulder	12.00	185.22	4.00	61.74	6.75	104.18	9.00	45.00	3.25	16.25	5.90	29.50
	Side	12.00	185.22	4.00	61.74	6.94	107.12	9.00	45.00	2.00	10.00	6.56	32.80
	Hip	19.00	293.26	7.50	115.76	11.38	175.65	8.75	43.75	3.00	15.00	6.06	30.30
69	Shoulder	10.00	154.35	4.25	65.60	6.47	99.86	9.00	45.00	1.75	8.75	5.88	29.40
	Side	15.00	231.52	4.00	61.74	6.90	106.50	9.00	45.00	3.25	16.25	6.35	31.75
	Hip	19.25	297.12	5.25	81.04	10.66	164.53	8.00	40.00	2.00	10.00	4.80	24.00
70	Shoulder	11.50	177.50	3.50	54.02	6.28	96.93	7.75	38.75	2.00	10.00	4.64	23.20
	Side	10.00	154.35	3.75	57.88	5.89	90.90	9.00	45.00	2.25	11.25	6.03	30.15
	Hip	15.00	231.52	4.00	61.74	7.98	123.17	8.00	40.00	1.00	5.00	3.45	17.25
71	Shoulder	7.75	119.62	3.00	46.30	4.98	76.86	7.75	38.75	3.25	16.25	5.13	25.65
	Side	9.00	138.91	4.00	61.74	5.86	90.45	9.00	45.00	2.00	10.00	6.06	30.40
	Hip	13.00	200.65	4.00	61.74	8.10	125.02	7.00	35.00	1.00	5.00	3.63	18.15
72	Shoulder	7.00	108.04	3.25	50.16	4.69	72.39	7.50	37.50	2.50	12.50	4.63	23.15
	Side	9.50	146.63	3.00	46.30	5.20	80.26	7.25	36.25	3.00	15.00	4.65	23.25
	Hip	16.75	258.53	5.00	77.17	9.20	141.99	6.00	30.00	2.00	10.00	3.37	16.85
73	Shoulder	13.50	208.37	5.00	77.17	8.22	126.87	8.25	41.25	3.00	15.00	5.77	28.85
	Side	12.25	189.07	4.00	61.74	7.16	110.51	8.00	40.00	4.00	20.00	6.20	31.00
	Hip	14.00	216.08	5.25	81.03	8.21	126.72	7.00	35.00	1.00	5.00	3.87	19.35
74	Shoulder	14.00	216.08	5.00	77.17	8.74	134.90	8.00	40.00	4.00	20.00	5.98	29.40
	Side	11.25	173.64	5.00	77.17	7.50	115.76	9.50	47.50	4.25	21.25	7.09	35.45

TABLE XVI.—*Individual extremes and averages, showing influence of breed upon strain and stretch*—Continued.

Catalogue No. of samples.	Portion of fleece represented.	STRAIN.						STRETCH.					
		Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
	MERINO—continued.	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per ct.*	*mm.*	*per ct.*	*mm.*	*per ct.*
74	Hip	20.00	308.69	8.00	123.48	12.35	190.62	8.25	41.25	2.75	13.75	5.65	28.25
75	Shoulder	12.75	196.79	5.50	84.89	7.68	118.54	7.00	35.00	2.25	11.50	3.93	19.65
	Side	11.00	169.78	5.00	77.17	7.75	119.62	8.50	42.50	4.25	21.25	6.51	32.55
	Hip	17.75	273.96	6.00	92.61	9.30	143.54	7.00	35.00	2.00	10.00	4.65	23.25
76	Shoulder	14.75	227.66	5.50	84.89	9.07	139.99	5.25	26.25	1.00	5.00	2.73	13.65
	Side	8.25	127.34	4.00	61.74	5.57	85.97	8.00	40.00	3.25	16.25	6.05	30.25
	Hip	13.50	208.37	5.75	88.75	9.04	139.53	6.00	30.00	1.50	7.50	4.10	20.50
77	Shoulder	10.50	162.06	4.25	65.60	6.12	94.46	8.00	40.00	3.50	17.50	5.51	27.55
	Side	11.00	169.78	4.00	61.74	5.36	82.73	8.75	43.75	5.00	25.00	6.95	34.75
	Hip	14.00	216.08	4.25	65.60	7.92	122.24	7.00	35.00	3.00	15.00	4.70	23.50
78	Shoulder	9.50	146.63	4.25	65.60	6.17	95.23	7.25	36.25	1.75	8.75	4.51	22.55
	Side	11.00	169.78	4.50	69.46	5.67	87.51	8.75	43.75	4.00	20.00	6.21	31.05
	Hip	12.75	196.79	5.00	77.17	8.04	124.09	7.00	35.00	3.00	15.00	4.47	22.35
79	Shoulder	9.00	138.91	4.00	61.74	5.92	91.37	8.00	40.00	2.25	11.25	5.51	27.55
	Side	9.00	138.91	4.25	65.60	5.63	86.90	9.00	45.00	3.25	16.25	6.25	31.25
	Hip, top of wrinkle	10.75	165.92	5.25	81.03	7.72	119.15	7.00	35.00	3.00	15.00	4.67	23.35
	Hip, between wrinkle	12.50	192.93	5.00	77.17	7.56	116.69	7.00	35.00	3.00	15.00	5.01	25.05
80	Shoulder	8.50	131.19	3.00	46.30	5.23	80.72	8.50	42.50	4.00	20.00	6.63	33.15
	Side	8.50	131.19	3.25	50.16	4.70	72.54	9.25	46.25	5.00	25.00	7.28	36.40
	Hip	8.00	123.48	3.00	46.30	5.08	78.41	7.00	35.00	2.75	13.75	5.17	25.85
81	Shoulder	11.75	181.36	5.25	81.03	7.70	118.85	8.75	43.75	4.00	20.00	5.76	28.80
	Side	11.50	177.50	4.00	61.74	6.43	99.24	9.00	45.00	5.00	25.00	6.96	34.80
	Hip	14.75	227.66	5.00	77.17	9.53	147.09	8.00	40.00	2.00	10.00	4.61	23.05
82	Shoulder	9.75	150.49	4.75	73.31	6.75	104.18	6.75	33.75	2.25	11.25	4.75	23.75
	Side	11.00	169.78	4.00	61.74	6.40	98.78	8.00	40.00	2.00	10.00	4.57	22.85
	Hip	18.25	281.68	5.00	77.17	8.90	137.37	7.25	36.25	3.00	15.00	4.69	23.45
83	Shoulder	13.75	212.23	4.50	69.46	7.49	115.61	8.00	40.00	3.25	16.25	5.42	27.10
	Side	9.00	138.91	3.75	57.87	5.61	86.59	7.50	37.50	3.50	17.50	5.50	27.50
	Hip	24.00	370.43	3.00	46.30	14.30	220.71	7.50	37.50	1.50	7.50	3.29	16.45
84	Shoulder, 17 months	7.00	108.04	3.00	46.30	4.86	75.01	8.25	41.25	4.00	20.00	6.12	30.60
	Shoulder	6.50	100.32	3.25	50.16	4.65	71.77	5.00	25.00	1.25	6.25	2.74	13.70
	Side	7.50	115.76	2.75	42.44	4.42	68.22	6.25	31.25	1.00	5.00	3.07	15.35
	Hip	8.25	127.34	2.25	34.73	4.82	74.39	5.25	26.25	1.00	5.00	2.38	11.90
85	Shoulder	5.25	81.03	2.75	42.45	3.71	57.26	9.00	45.00	4.00	20.00	6.24	31.20
	Side	6.25	96.47	3.00	46.30	3.88	59.89	9.50	47.50	4.50	22.50	6.92	34.60
	Hip	6.00	92.61	3.00	46.30	4.27	65.91	6.75	33.75	1.00	5.00	3.92	19.60
86	Shoulder	6.25	96.47	3.25	50.16	4.62	71.31	8.75	43.75	4.25	21.25	6.42	32.10
	Side	10.50	162.06	3.00	46.30	5.65	87.21	8.00	40.00	2.25	11.25	5.25	26.25
	Hip	15.00	231.52	3.00	46.30	5.93	91.53	8.50	42.50	1.75	8.75	4.32	21.60
87	Shoulder	7.75	119.62	4.25	65.60	5.32	82.11	8.75	43.75	4.75	23.75	6.61	33.05
	Side	8.00	123.48	4.25	65.60	5.37	82.88	8.00	40.00	3.00	15.00	6.40	32.00
	Hip	9.75	150.49	3.50	54.02	5.55	85.66	7.00	35.00	1.00	5.00	4.25	21.25
88	Shoulder	8.25	127.34	3.00	46.30	4.66	71.92	9.00	45.00	3.75	18.75	5.95	29.75
	Side	6.50	100.32	3.50	54.02	4.69	72.39	7.75	38.75	3.25	16.25	5.69	28.45
	Hip	14.00	216.08	3.00	46.30	6.88	106.19	7.75	38.75	1.00	5.00	4.10	20.50
89	Shoulder	9.00	138.91	3.00	46.30	5.04	83.35	9.50	47.50	1.25	6.25	5.71	28.55
	Side	11.00	169.78	4.00	61.74	5.58	86.12	8.00	40.00	3.25	16.25	5.90	29.50
	Hip	12.75	196.79	4.00	61.74	6.31	97.39	7.50	37.50	1.50	7.50	4.59	22.95
90	Shoulder	7.50	115.76	3.25	50.16	5.00	77.17	7.75	38.75	2.00	10.00	4.48	22.40
	Side	10.25	158.20	4.00	61.74	5.94	91.68	7.50	37.50	2.25	11.25	5.03	25.15
	Hip	12.00	185.22	4.25	65.60	6.96	107.43	6.75	33.75	1.00	5.00	3.43	17.15
96		3.50	54.02	1.25	19.29	2.48	38.28	9.00	45.00	2.00	10.00	5.60	28.00
97		4.25	65.60	1.50	23.15	2.43	37.51	8.75	43.75	1.50	7.50	5.43	27.15
98		4.50	69.46	1.50	23.15	2.90	44.76	8.75	43.75	1.00	5.00	5.96	29.80
99a		4.50	69.46	1.00	15.44	2.75	42.44	9.00	45.00	2.00	10.00	6.00	30.00
99		4.25	65.60	1.50	23.15	2.80	43.22	9.00	45.00	2.00	10.00	5.60	28.00
100	Shoulder	4.25	65.60	1.75	27.01	2.61	40.28	7.75	38.75	2.50	12.50	5.38	26.90
101		4.00	61.74	1.50	23.15	2.51	38.74	9.50	47.50	1.00	5.00	6.11	30.55
102		4.00	61.74	1.25	19.29	2.49	38.43	7.50	37.50	1.50	7.50	4.86	24.30
103		7.25	111.90	2.75	42.44	4.62	71.73	8.50	42.50	2.00	10.00	5.39	26.95
104		8.00	123.48	2.25	34.73	4.21	64.98	7.75	38.75	2.25	11.25	5.53	27.65
104a		7.00	108.04	1.75	27.01	3.70	57.10	8.00	40.00	2.25	11.25	5.60	28.00
347		14.25	219.94	2.75	42.44	6.97	107.58	8.00	40.00	1.00	5.00	3.65	18.25
348		16.00	246.95	2.00	30.87	6.02	92.92	7.25	36.25	1.00	5.00	5.29	26.45
349	Top of wrinkle	14.25	219.94	3.00	46.30	6.97	107.58	7.75	38.75	1.00	5.00	3.65	18.25
	Between wrinkle	13.00	200.65	3.50	54.02	5.10	78.72	7.00	35.00	1.50	7.50	3.86	19.30
350		12.75	196.79	3.00	46.30	5.71	88.13	8.00	40.00	1.50	7.50	4.60	23.00
351		9.25	142.77	2.00	30.87	4.24	65.44	7.25	36.25	1.50	7.50	4.65	23.25
352		12.75	196.79	3.00	46.30	5.42	83.66	7.75	38.75	1.25	6.25	4.65	23.25
353		10.00	154.35	3.00	46.30	5.40	83.35	7.50	37.50	1.00	5.00	4.33	21.65
354		9.00	138.91	2.75	42.44	4.81	74.24	7.00	35.00	1.00	5.00	3.84	19.20
355		12.00	185.22	3.75	57.88	6.85	105.73	6.50	32.50	1.25	6.25	3.83	19.15
356		8.00	123.48	3.00	46.31	5.29	81.65	8.00	40.00	1.00	5.00	4.59	22.95
357		17.75	273.96	4.00	61.74	8.94	137.98	8.00	40.00	1.50	7.50	4.86	24.30
358		8.75	135.05	4.50	69.46	5.95	91.84	8.25	41.25	1.00	5.00	4.49	22.45
359		10.75	165.92	4.00	61.74	6.29	97.08	7.00	35.00	2.00	10.00	4.13	20.65
360		12.00	185.22	5.00	77.17	7.73	119.31	7.50	37.50	1.00	5.00	4.59	22.95
361		8.75	135.05	3.00	46.30	5.01	77.33	7.00	35.00	2.00	10.00	4.47	22.35
	Average	11.92	183.98	3.86	59.58	7.35	113.44	7.99	39.95	2.14	10.70	5.74	28.70

TABLE XVII.—*Individual extremes and averages, showing influence of sex and part of fleece upon strain and stretch.*

Catalogue No. of samples.	Portion of fleece represented.	STRAIN.						STRETCH.					
		Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
	COTSWOLD.												
	Ram.	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per ct.*	*mm.*	*per ct.*	*mm.*	*per ct.*
34	Shoulder	41.00	632.82	16.50	254.67	25.66	396.05	8.00	40.00	2.00	10.00	6.44	32.20
35	do	55.75	860.48	21.00	324.13	33.40	515.52	10.00	50.00	5.75	28.75	28.75	36.50
36	do	31.00	478.47	15.50	239.24	24.35	375.83	8.50	42.50	1.50	7.50	6.01	34.65
	Average	42.58	257.21	17.67	272.73	27.80	429.08	8.83	44.15	3.08	15.40	6.58	32.90
34	Side	51.00	771.73	20.00	308.69	35.75	551.79	9.00	45.00	1.25	6.25	6.09	30.45
35	do	61.00	941.51	23.00	354.99	40.00	618.93	9.50	47.50	1.50	7.50	7.57	37.85
36	do	38.75	598.09	9.50	146.63	24.27	374.60	10.75	53.75	1.25	6.25	5.93	29.65
	Average	50.18	774.31	17.50	270.11	33.34	514.80	9.75	48.75	1.33	6.65	6.53	32.65
34	Hip	62.00	956.95	27.50	424.45	41.24	636.52	10.00	50.00	5.25	26.25	7.99	39.95
35	do	64.00	987.81	30.50	407.76	45.45	701.50	9.50	47.50	3.00	15.00	7.80	39.00
36	do	39.00	601.95	19.75	304.83	29.20	450.69	9.00	45.00	2.00	10.00	7.50	37.50
	Average	55.00	848.90	25.92	400.06	38.63	596.24	9.50	47.50	3.42	17.10	7.76	38.80
172		30.00	463.04	9.00	138.91	17.16	264.96	10.75	53.75	1.00	5.00	6.38	31.90
173		44.00	679.12	13.00	200.65	27.85	429.85	10.00	50.00	1.25	6.25	6.36	31.80
174		40.50	625.10	12.50	192.93	25.19	388.80	20.50	102.50	2.00	10.00	9.58	47.90
175		48.50	748.58	16.00	246.95	35.54	548.55	25.00	125.00	2.00	10.00	12.25	61.25
176		47.50	733.14	12.00	185.22	32.91	507.95	26.00	130.00	1.25	6.25	12.36	61.80
182		43.00	663.69	18.75	289.40	31.25	482.33	8.25	41.25	1.25	6.25	5.43	27.15
185		34.00	524.78	15.00	231.52	24.79	382.62	8.00	40.00	1.00	5.00	4.43	22.15
186		42.00	652.11	17.75	273.93	27.78	428.77	8.25	41.25	1.00	5.00	5.22	26.10
	Average	45.47	701.81	17.49	269.95	30.69	473.69	11.82	59.10	2.01	10.05	7.33	36.67
	Ewe.												
37	Shoulder	51.00	787.16	15.50	239.24	32.20	496.99	8.75	43.75	4.00	20.00	6.66	33.30
38	do	47.00	725.43	16.00	246.95	29.96	462.42	8.75	43.75	5.00	25.00	6.84	34.20
39	do	47.75	737.00	16.00	246.95	34.32	529.72	8.50	42.50	5.25	26.25	6.83	34.16
	Average	48.58	749.81	15.83	244.38	32.16	496.38	8.67	43.35	4.75	23.75	6.78	33.90
37	Side	38.00	586.52	11.00	169.78	26.36	406.86	9.00	45.00	1.00	5.00	4.75	23.75
38	do	52.50	810.32	20.00	308.69	36.26	559.66	10.00	50.00	4.00	20.00	7.62	38.10
39	do	57.00	879.77	25.50	393.58	39.61	611.36	9.50	47.50	3.25	16.25	7.83	39.15
	Average	49.17	758.92	18.83	290.63	34.08	526.01	9.50	47.50	2.75	13.75	6.73	33.75
37	Hip	40.00	667.38	18.00	277.82	30.35	468.44	9.50	47.50	0.50	2.50	6.33	31.63
38	do	60.00	926.08	20.00	308.69	47.43	732.06	18.00	50.00	3.00	15.00	8.36	41.80
39	do	40.50	625.10	23.50	362.71	32.72	505.02	9.00	45.00	6.00	30.00	8.20	41.00
	Average	46.83	722.80	20.50	316.41	36.83	568.46	9.50	47.50	3.17	15.85	7.63	38.15
171		30.50	470.76	10.50	162.06	20.38	314.56	10.00	50.00	1.00	5.00	7.40	37.00
177		44.75	690.70	15.50	239.24	31.17	740.86	21.75	108.75	2.25	11.25	10.47	52.35
178		45.50	702.27	12.00	185.22	26.86	414.57	10.50	52.50	1.50	7.50	6.64	33.20
179		38.50	594.23	13.75	212.23	26.49	408.86	8.75	43.75	2.50	12.50	6.53	32.65
180		44.00	679.12	21.00	324.13	31.13	480.48	9.00	43.33	1.25	6.25	7.26	36.30
181		49.50	764.01	11.00	169.78	35.04	540.83	10.00	50.00	1.25	6.25	7.10	35.50
182		42.00	648.25	12.00	185.22	28.63	441.89	8.75	43.75	1.00	5.00	6.58	32.90
183		36.75	567.22	10.50	162.06	24.08	371.66	9.75	48.75	1.25	6.25	6.97	34.85
187		40.75	628.96	16.25	250.81	27.75	428.31	8.75	43.75	1.00	5.00	5.21	26.05
189		43.25	667.55	13.75	212.23	32.03	494.37	8.00	40.00	1.00	5.00	6.09	30.45
190		40.00	617.38	12.50	192.93	27.23	420.28	8.25	41.25	0.25	1.25	5.23	26.15
	Average	44.46	686.22	15.71	242.48	31.00	478.47	9.83	49.15	2.31	11.50	6.95	34.75
	LINCOLN.												
	Ram.												
59	Shoulder	36.00	555.65	17.00	262.30	26.87	414.73	8.00	40.00	5.00	25.00	6.98	34.90
59	Side	36.00	555.65	15.00	154.35	23.42	361.48	9.00	45.00	4.00	20.00	7.25	37.60
59	Hip	45.00	694.56	23.00	355.10	34.40	530.95	8.75	43.75	5.00	25.00	7.16	35.80
165		27.50	424.45	11.50	177.50	17.72	273.50	8.00	40.00	0.75	3.75	4.67	23.35
166		30.00	463.04	7.00	108.04	20.62	318.28	8.75	43.75	1.25	6.25	6.16	30.80
167		33.00	509.34	11.25	173.64	22.75	351.14	9.50	47.50	1.00	5.00	6.63	33.15
	Average	34.58	533.73	13.29	205.13	24.30	375.06	8.67	43.35	2.53	14.17	6.52	32.60
	Ewe.												
60	Shoulder	48.50	748.58	20.00	308.69	23.75	529.26	8.50	42.50	6.00	30.00	7.41	37.05
61	do	29.25	451.46	20.25	312.55	23.68	368.58	9.50	47.50	5.00	25.00	7.38	36.90
	Average	38.88	600.10	20.13	310.70	23.82	367.65	9.00	45.50	5.50	27.50	7.40	37.00
89	Side	52.00	802.73	24.00	370.43	37.77	582.96	10.00	50.00	6.25	31.25	7.00	39.50
91	do	31.00	478.47	18.50	285.54	25.55	394.35	10.25	51.25	7.25	36.25	8.67	43.35
	Average	41.50	640.54	21.25	327.99	31.66	488.66	10.13	50.65	6.75	33.75	8.29	41.45

TABLE XVII.—*Individual extremes and averages, showing influence of sex and part of fleece, &c.*—Continued.

Catalogue No. of samples.	Portion of fleece represented.	STRAIN.						STRETCH.					
		Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
	LINCOLN—continued.												
	Ewe—Continued.	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per ct.*	*mm.*	*per ct.*	*mm.*	*per ct.*
59	Hip	49.00	756.30	25.00	393.58	35.89	553.95	8.75	43.75	5.00	25.00	7.39	36.95
61	do	42.50	655.97	19.25	297.12	28.80	444.52	11.00	55.00	6.00	30.00	8.24	41.20
	Average	45.75	706.13	22.13	341.57	32.35	499.31	9.88	49.40	5.50	27.50	7.82	39.10
104		32.25	497.77	14.25	219.94	23.18	357.77	9.25	46.25	1.25	6.25	6.58	32.90
108		25.25	389.72	10.00	154.35	17.75	273.96	9.50	47.50	1.25	6.25	6.27	31.35
109		33.50	517.06	8.50	131.19	22.50	347.28	12.75	63.73	2.00	10.00	7.14	35.70
	Average	37.03	571.54	17.67	272.73	26.56	409.94	9.94	49.70	4.44	22.20	7.44	37.20
	SOUTHDOWN.												
	Ram.												
62	Shoulder	17.75	273.96	8.50	131.19	12.46	192.31	6.50	32.50	1.00	5.00	3.06	15.30
62	Side	19.25	297.12	8.00	123.48	11.60	179.04	8.00	40.00	3.25	16.25	6.05	30.25
62	Hip	19.00	293.26	7.50	115.76	13.41	206.98	8.00	40.00	4.00	20.00	6.33	31.65
132		28.00	432.17	2.50	38.59	10.92	168.55	8.25	41.25	0.25	1.25	3.63	18.25
133		16.25	250.81	4.50	69.46	9.99	154.09	8.50	42.50	0.50	2.50	3.45	17.25
134		18.50	285.54	3.00	46.30	12.73	196.48	8.00	40.00	0.50	2.50	4.34	21.70
135		23.75	366.57	6.00	92.61	12.79	197.40	6.75	33.75	0.75	3.75	3.62	18.10
136		22.00	339.56	4.00	61.74	11.64	179.67	7.75	38.75	0.25	1.25	3.93	19.65
137		22.50	347.28	4.00	61.74	13.82	213.31	10.00	50.00	1.25	6.25	4.54	22.70
138		15.50	239.23	3.50	54.02	8.11	125.17	7.25	36.25	0.75	3.75	3.03	15.15
139		26.25	405.16	3.50	54.02	10.87	167.77	8.00	40.00	0.75	3.75	3.36	16.80
140		20.25	312.55	4.00	61.74	10.34	159.59	8.00	40.00	1.00	5.00	3.55	17.75
	Average	20.75	320.27	4.92	75.94	11.56	178.42	7.92	39.60	1.19	4.95	4.07	20.35
	Ewe.												
63	Shoulder	20.00	308.69	7.50	115.76	13.68	211.15	8.00	40.00	4.50	22.50	6.19	30.95
91	do	14.75	227.66	6.75	104.18	11.71	180.74	7.00	35.00	1.50	7.50	4.10	20.50
92	do	26.00	401.30	7.50	115.76	14.38	221.95	8.25	41.25	4.50	22.50	6.24	31.20
93	do	20.00	308.69	6.50	100.32	12.54	193.55	8.25	41.25	1.50	7.50	4.55	22.75
94	do	21.50	331.84	8.00	123.48	11.95	184.44	7.75	38.75	1.25	6.25	4.69	23.45
95	do	15.00	231.52	7.25	111.90	10.80	166.69	8.00	40.00	2.50	12.50	5.46	27.30
	Average	19.54	301.59	7.25	111.90	12.51	193.09	7.88	39.40	2.63	13.15	5.21	26.05
63	Side	22.00	339.56	6.00	92.60	11.70	180.59	10.00	50.00	2.50	12.50	6.88	34.40
91	do	19.50	300.97	8.00	123.48	13.24	204.35	9.00	45.00	3.50	17.50	5.75	28.75
92	do	23.00	354.99	8.75	135.05	13.57	209.45	7.00	35.00	3.25	16.25	5.62	28.10
93	do	21.00	324.13	9.25	142.77	14.15	218.14	7.75	38.75	2.50	12.50	5.60	28.00
94	do	21.00	324.13	7.75	119.62	12.33	190.31	8.00	40.00	2.50	12.50	5.65	28.25
95	do	14.00	216.08	4.50	69.46	9.26	142.92	8.50	42.50	1.50	7.50	4.90	24.50
	Average	20.08	309.93	7.38	113.91	12.38	191.08	8.38	41.90	2.63	13.15	5.73	28.65
63	Hip	22.00	339.56	11.00	169.78	16.33	252.05	7.75	38.75	3.50	17.50	5.81	29.05
91	do	29.00	447.60	11.00	169.78	17.55	270.88	8.25	41.25	1.00	5.00	4.19	20.95
92	do	33.00	509.34	13.00	200.65	21.46	331.23	8.00	40.00	1.00	5.00	4.54	22.70
93	do	23.00	355.00	8.00	123.48	14.50	223.80	8.00	40.00	1.25	6.25	4.26	21.30
94	do	26.50	409.02	9.25	142.77	18.78	289.09	7.00	35.00	1.50	7.50	4.77	23.85
95	do	20.00	308.69	6.00	92.61	12.73	196.48	7.25	36.25	1.25	6.25	3.69	18.45
	Average	25.58	394.82	9.71	149.87	16.88	260.54	7.71	38.55	1.58	7.90	4.54	22.70
141		22.50	347.28	5.25	81.03	11.90	183.67	7.25	36.25	1.00	5.00	3.59	17.95
142		18.75	289.40	3.00	46.30	9.09	140.30	7.75	38.75	0.75	3.75	4.08	20.40
143		23.50	362.71	3.50	54.02	13.22	204.05	8.25	41.25	0.25	1.25	3.24	16.20
144		18.75	289.40	3.50	54.02	11.14	171.94	8.00	40.00	0.25	1.25	3.53	17.65
	Average	21.58	333.08	7.38	113.92	13.45	207.60	7.95	39.75	1.96	9.80	4.88	24.40
	OXFORD.												
	Ram.												
65	Shoulder	42.25	652.11	20.75	320.27	29.97	462.57	9.00	45.00	4.25	21.25	6.64	[illegible]
66	do	31.00	478.47	12.00	185.22	20.90	322.58	8.50	42.50	2.00	10.00	5.58	27.90
67	do	51.00	787.17	30.75	474.61	39.96	616.77	8.50	42.50	4.00	20.00	6.17	30.85
	Average	41.42	639.30	21.17	326.75	30.28	467.36	8.67	43.35	3.42	17.10	6.13	30.65
65	Side	32.00	493.91	12.00	185.21	19.70	304.06	8.75	43.75	4.50	22.50	7.03	35.15
66	do	39.75	613.52	11.50	177.50	24.84	383.40	10.25	36.16	6.00	30.00	8.46	42.30
67	do	57.00	879.77	25.50	393.58	41.54	641.15	10.00	50.00	5.50	27.50	8.11	40.50
	Average	42.92	662.45	16.33	252.05	28.69	442.82	9.67	48.35	5.33	26.65	7.87	39.35
65	Hip	46.75	721.57	18.50	285.54	27.99	532.01	9.00	45.00	1.50	7.50	5.97	29.85
66	do	38.00	586.52	19.25	297.12	26.53	409.48	9.00	45.00	2.25	11.25	6.20	31.00
67	do	59.00	910.64	20.50	316.41	37.67	581.42	8.25	41.25	2.00	10.00	6.31	31.55
	Average	47.92	739.63	19.42	299.74	30.73	474 31	8.75	43.75	1.92	9.60	6.16	30.80

TABLE XVII.—*Individual extremes and averages, showing influence of sex and part of fleece, &c.*—Continued.

Catalogue No. of samples.	Portions of fleece represented.	STRAIN.						STRETCH.					
		Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
	OXFORD—continued.												
	Ewe.												
		grams.	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per ct.*	*mm.*	*per ct.*	*mm.*	*per ct.*
64	Shoulder	47.75	737.00	16.00	246.95	31.94	492.98	8.25	41.25	1.75	8.75	5.22	26.10
64	Side	47.00	725.41	22.00	339.56	30.99	478.32	10.00	50.00	4.00	20.00	7.46	37.30
64	Hip	50.25	775.59	21.00	324.13	33.68	519.58	9.50	47.50	1.25	6.25	6.11	30.55
	MERINO.												
	Ram.												
20	Neck, top of wrinkle	20.00	308.60	0.00	138.91	13.61	210.07	8.25	41.25	2.50	12.50	5.43	27.15
30	Neck, between wrinkle	12.25	189.07	0.50	100.32	0.18	141.69	8.75	43.75	3.25	16.25	5.48	27.40
	Average	16.13	248.90	7.75	119.62	11.40	175.96	8.50	42.50	2.88	14.40	5.46	27.30
30	Shoulder	13.75	212.23	5.50	84.89	9.47	146.13	8.25	41.25	3.25	16.25	5.75	28.75
47	....do	12.50	192.93	4.00	61.74	6.19	95.54	7.25	36.25	0.75	3.75	4.48	22.40
47	Shoulder, top of wrinkle	15.75	243.09	3.50	54.02	8.28	127.80	8.25	41.25	2.00	10.00	5.30	26.50
48	Shoulder, between wrinkle	13.25	204.51	4.00	61.74	7.83	120.78	8.25	41.25	2.75	13.75	6.35	31.75
51	Shoulder	22.00	339.56	4.00	61.74	9.31	143.70	10.75	53.75	3.25	16.25	6.75	33.60
53	....do	5.50	84.89	2.00	30.87	3.29	50.78	9.00	45.00	4.00	20.00	6.32	31.60
53	Shoulder, top of wrinkle	25.00	385.86	6.50	100.32	10.54	162.68	7.50	37.50	3.25	16.25	5.45	27.25
53	Shoulder, between wrinkle	8.50	131.19	3.25	50.16	5.70	88.00	7.75	38.75	2.00	10.00	4.83	24.15
54	Shoulder, top of wrinkle	29.00	447.60	4.00	61.74	10.03	154.87	8.50	42.50	1.00	5.00	3.86	19.30
54	Shoulder, between wrinkle	7.50	115.76	2.75	42.44	5.28	81.49	8.00	40.00	1.75	8.75	5.10	25.50
55	Shoulder, top of wrinkle	16.50	254.67	5.00	77.17	8.95	138.14	8.25	41.25	4.00	20.00	6.16	30.80
55	Shoulder, between wrinkle	7.50	115.76	4.00	61.74	5.33	82.27	7.75	38.75	4.00	20.00	5.93	29.65
68	Shoulder	12.00	185.22	4.00	61.74	6.75	104.18	9.00	45.00	3.25	16.25	5.90	29.50
69	....do	10.00	154.35	4.25	65.60	6.47	99.86	9.00	45.00	1.75	8.75	5.88	29.40
71	....do	7.75	119.62	3.00	46.30	4.98	76.86	7.75	38.75	2.25	11.25	5.13	25.65
72	....do	7.00	108.04	3.25	50.16	4.69	72.39	7.50	37.50	2.50	12.50	4.63	23.15
73	....do	13.50	208.37	5.00	77.17	8.22	126.87	8.25	41.25	3.00	15.00	5.77	28.85
78	....do	9.50	146.63	4.25	65.60	6.17	95.23	7.25	36.25	1.75	8.75	4.51	22.55
79	....do	9.00	138.91	4.00	61.74	5.92	91.37	8.00	40.00	2.25	11.25	5.51	27.53
82	....do	9.75	150.49	4.75	73.31	6.75	104.18	6.75	33.75	2.25	11.25	4.75	23.75
89	....do	9.00	138.91	3.00	46.30	5.04	83.35	9.50	47.50	1.25	6.25	5.71	28.55
90	....do	7.50	115.76	3.25	50.16	5.00	77.17	7.75	38.75	2.00	10.00	4.48	22.40
	Average	12.75	196.62	3.96	61.12	6.85	105.73	8.19	40.95	2.47	12.35	5.38	26.90
36	Side	14.00	216.08	5.00	92.61	9.19	141.84	8.75	43.75	2.25	11.25	5.49	27.45
47	....do	13.75	212.23	4.00	61.74	7.72	119.15	9.25	46.25	3.00	15.00	5.48	27.40
48	....do	15.75	243.09	4.00	61.74	8.43	130.11	9.75	48.75	3.00	15.00	6.41	32.05
51	....do	12.00	185.21	4.00	61.74	6.98	107.73	8.25	41.25	3.00	15.00	5.53	27.65
53	....do	8.00	123.48	2.00	46.30	4.48	69.14	8.50	42.50	1.50	7.50	5.75	28.75
53	....do	11.00	169.78	3.00	46.30	5.47	84.43	9.50	47.50	2.00	10.00	5.42	27.10
68	....do	12.00	185.22	4.00	61.74	6.64	107.12	9.00	45.00	2.00	10.00	6.56	32.80
69	....do	15.00	231.52	4.00	61.74	6.90	106.50	9.00	45.00	3.25	16.25	6.35	31.75
71	....do	9.00	138.91	4.00	61.74	5.86	90.45	9.00	45.00	2.00	10.00	6.08	30.40
72	....do	9.50	146.63	3.00	46.30	5.20	80.26	7.25	36.25	3.00	15.00	4.65	23.25
73	....do	12.25	189.07	4.00	61.74	7.16	110.51	8.00	40.00	4.00	20.00	6.20	31.00
78	....do	11.00	169.78	4.50	69.46	5.67	87.51	8.75	43.75	4.00	20.00	6.21	31.05
79	....do	9.00	138.91	4.25	65.60	5.63	86.90	9.00	45.00	3.25	16.25	6.25	31.25
82	....do	11.00	169.78	4.00	61.74	6.10	98.78	8.00	40.00	2.00	10.00	4.57	22.85
89	....do	11.00	169.78	4.00	61.74	5.58	86.12	8.00	40.00	3.25	16.25	5.90	29.50
90	....do	10.25	158.20	4.00	61.74	5.94	91.68	7.50	37.50	2.25	11.25	5.05	25.15
	Average	11.48	177.19	3.99	61.58	6.47	99.86	8.59	42.95	2.74	13.70	5.81	29.05
30	Hip	12.25	189.07	5.75	88.73	8.76	135.21	8.25	41.25	2.75	13.75	5.68	28.40
47	....do	27.00	416.73	4.75	73.31	13.22	204.05	8.00	40.00	2.00	10.00	4.63	23.15
48	....do	23.50	362.71	4.50	69.46	11.78	181.83	8.25	41.25	1.00	5.00	4.41	22.05
51	....do	26.50	409.02	4.25	65.60	10.70	165.15	8.00	40.00	1.00	5.00	4.95	24.75
53	....do	8.00	123.48	2.00	30.87	4.80	74.08	7.00	35.00	1.00	5.00	4.14	20.70
53	Hip, top of wrinkle	32.50	501.62	7.75	119.62	18.05	278.59	8.00	40.00	2.00	10.00	5.05	25.30
53	Hip, between wrinkle	9.50	146.63	2.50	38.59	5.02	86.74	7.75	38.75	1.50	7.50	4.61	23.06
54	Hip, top of wrinkle	20.00	308.69	4.00	61.74	11.08	171.02	6.00	30.00	1.00	5.00	2.77	13.85
54	Hip, between wrinkle	10.00	154.35	3.50	54.02	5.92	91.37	6.00	30.00	1.50	7.50	3.67	18.35
55	Hip, top of wrinkle	11.50	177.50	2.00	30.87	5.74	88.59	8.50	42.50	1.00	5.00	3.97	19.85
55	Hip, between wrinkle	9.00	138.91	2.75	42.44	5.45	84.12	9.00	45.00	1.50	7.50	4.60	23.00
68	Hip	19.00	293.23	7.50	115.76	11.38	175.65	8.75	43.75	3.00	15.00	6.06	30.30
69	....do	19.25	297.11	5.25	81.03	10.66	164.53	8.00	40.00	2.00	10.00	4.80	24.00
71	....do	13.00	200.65	4.00	61.74	8.10	125.02	7.00	35.00	1.00	5.00	3.63	18.15
72	....do	16.75	258.53	5.00	77.17	9.20	141.99	6.00	30.00	2.00	10.00	3.37	16.85
73	....do	14.00	216.08	5.25	81.03	8.21	126.72	7.00	35.00	1.00	5.00	3.87	19.35
78	....do	12.75	196.79	5.00	77.17	8.04	124.09	7.00	35.00	3.00	15.00	4.47	22.35
79	Hip, top of wrinkle	10.75	165.93	5.25	81.03	7.72	119.15	7.00	35.00	3.00	15.00	4.67	23.35
79	Hip, between wrinkle	12.50	192.93	5.00	77.17	7.56	116.62	7.00	35.00	3.00	15.00	5.01	25.05
82	Hip	18.25	281.68	5.00	77.17	8.90	137.37	7.25	36.25	3.00	15.00	4.69	23.45
89	....do	12.75	196.79	4.00	61.74	6.31	97.39	7.50	37.50	1.50	7.50	4.48	22.05
90	....do	12.00	185.22	4.25	65.60	6.98	107.43	6.75	33.75	1.00	5.00	3.43	17.15
	Average	15.04	246.03	4.51	69.61	8.83	130.29	7.46	37.30	1.80	9.00	4.41	22.05
99		4.25	65.60	1.50	23.15	2.80	43.22	9.00	45.00	2.00	10.00	5.60	28.00
104		8.00	123.48	2.25	34.73	4.21	64.98	7.75	38.75	2.25	11.25	5.53	27.65
104a		7.00	108.04	1.75	27.01	3.70	57.10	8.00	40.00	2.25	11.25	5.60	28.00
349	Top of wrinkle	14.25	219.94	2.00	43.30	6.97	107.58	7.75	38.75	1.00	5.00	3.65	18.25
349	Between wrinkle	13.00	200.65	3.50	54.02	5.10	78.72	7.00	35.00	1.50	7.50	3.86	19.30
350		12.75	196.79	3.00	46.30	5.71	88.13	8.00	40.00	1.50	7.50	4.60	23.00
350		12.00	185.22	5.00	77.17	7.73	119.21	7.50	37.50	1.00	5.00	4.50	22.50
351		8.75	135.05	3.00	46.30	5.01	77.33	7.00	35.00	2.00	10.00	4.47	22.35
	Average	13.17	203.27	4.13	63.74	7.47	115.30	8.01	40.05	2.24	11.20	5.19	25.50

TABLE XVII.—*Individual extremes and averages, showing influence of sex and part of fleece, &c.*—Continued.

Catalogue No. of samples.	Portion of fleece represented.	STRAIN.						STRETCH.					
		Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
	MERINO—continued.												
	Ewe.	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per ct.*	*mm.*	*per ct.*	*mm.*	*per ct.*
41	Neck	10.00	154.35	3.25	50.16	5.00	77.17	8.00	40.00	2.00	10.00	4.28	21.40
45	Neck, top of wrinkle	15.00	231.52	4.00	61.74	7.98	123.17	8.00	40.00	3.25	16.25	5.58	27.90
45	Neck, between wrinkle	15.50	239.24	4.25	65.60	8.05	124.25	7.75	38.75	1.50	7.50	5.03	25.15
56	Neck, top of wrinkle	20.00	308.69	8.00	123.48	13.31	205.43	8.00	40.00	4.09	20.00	6.01	30.05
	Average	15.13	233.53	4.88	75.32	8.59	132.58	7.94	39.70	2.60	13.45	5.23	26.15
46	Shoulder	9.50	146.63	3.50	54.02	5.53	85.35	8.00	40.00	1.50	7.50	5.17	25.85
52	do	5.25	81.03	2.00	30.87	3.48	54.71	8.50	42.50	3.50	17.50	6.69	33.45
56	Shoulder, between wrinkle	9.00	138.91	3.25	50.16	5.56	85.82	8.25	41.25	3.00	15.00	5.58	27.90
57	Shoulder, top of wrinkle	27.00	416.73	5.00	77.17	11.31	174.56	8.50	42.50	2.25	11.25	5.83	29.15
57	Shoulder, between wrinkle	8.50	131.19	3.25	50.16	5.55	85.66	9.50	47.50	4.00	20.00	6.54	32.70
58	Shoulder, top of wrinkle	10.50	162.06	3.25	50.16	6.18	95.39	7.50	37.50	1.50	7.50	4.64	23.35
58	Shoulder, between wrinkle	9.25	142.77	3.00	46.30	5.68	87.68	8.00	40.00	1.25	6.25	5.26	26.30
70	Shoulder	11.50	177.50	3.50	54.02	6.28	96.93	7.75	38.75	2.00	10.00	4.64	23.20
74	do	14.00	216.08	5.90	77.17	8.74	134.90	8.00	40.00	4.00	20.00	5.88	29.40
75	do	12.75	196.79	5.50	84.89	7.68	118.54	7.00	35.00	2.25	11.25	3.93	19.65
76	do	14.75	227.66	5.50	84.89	9.07	139.99	5.25	26.25	1.00	5.00	2.73	13.65
77	do	10.50	162.06	4.25	65.60	6.12	94.46	8.00	40.00	3.50	17.59	5.51	27.55
80	do	8.50	131.19	3.00	46.30	5.23	80.72	8.50	42.50	4.00	20.00	6.63	33.15
81	do	11.75	181.36	5.25	81.03	7.70	118.85	8.75	43.75	4.00	20.00	5.76	28.80
83	do	13.75	212.23	4.50	69.46	7.49	115.61	8.00	40.00	3.25	16.25	5.42	27.10
84	Shoulder, 17 months	7.00	108.04	3.00	46.30	4.86	75.01	8.25	41.25	4.00	20.00	6.12	30.60
84	Shoulder	6.50	100.32	3.25	50.16	4.65	71.77	5.00	25.00	1.25	6.25	2.74	13.70
85	do	5.25	81.03	2.75	42.45	3.71	57.26	9.00	45.00	4.00	20.00	6.24	31.20
86	do	6.25	96.47	3.25	50.16	4.62	71.31	8.75	43.75	4.25	21.25	6.42	32.10
87	do	7.75	119.62	4.25	65.60	5.32	82.11	8.75	43.72	4.75	23.75	6.61	33.05
88	do	8.25	127.34	3.00	46.30	4.66	71.92	9.00	45.00	3.75	18.75	5.95	29.75
	Average	10.36	159.90	3.77	58.19	6.16	95.08	8.01	40.05	3.00	15.03	5.44	27.20
41	Side	12.00	185.22	3.75	57.88	5.88	90.76	8.75	43.75	1.75	8.75	6.25	31.25
45	do	14.00	216.08	5.75	88.75	8.46	130.58	9.00	45.00	4.00	20.00	6.65	33.25
46	do	14.00	216.08	4.00	61.74	6.85	113.44	10.00	50.00	1.50	7.50	6.21	31.05
52	do	7.50	115.76	3.00	46.30	4.53	69.92	9.00	45.00	3.00	15.00	6.90	34.50
56	do	9.00	138.91	3.00	46.30	5.96	91.99	8.00	40.00	2.00	10.00	5.19	25.94
70	do	10.00	154.35	3.75	57.88	5.89	90.90	9.00	45.00	2.25	11.25	6.03	30.15
74	do	11.25	173.64	5.00	77.17	7.50	115.76	9.50	47.50	4.25	21.25	7.09	35.45
75	do	11.00	169.78	5.00	77.17	7.75	119.62	8.50	42.50	4.25	21.25	6.51	32.55
76	do	8.25	127.34	4.00	61.74	5.57	85.97	8.00	40.00	3.25	16.25	6.05	30.25
77	do	11.00	169.78	4.00	61.74	5.36	82.73	8.75	43.75	5.00	25.00	6.95	34.75
80	do	8.50	131.19	3.25	50.16	4.70	72.54	9.25	46.25	5.00	25.00	7.28	36.40
81	do	11.50	177.50	4.00	61.74	6.43	99.24	9.00	45.00	5.00	25.00	6.96	34.80
83	do	9.00	138.91	3.75	57.87	5.61	86.59	7.50	37.50	3.50	17.50	5.50	27.50
84	do	7.50	115.76	2.75	42.44	4.42	68.22	6.25	31.25	1.00	5.00	3.07	15.35
85	do	6.25	96.47	3.00	46.30	3.88	59.89	9.50	47.50	4.50	22.50	6.92	34.60
86	do	10.50	162.06	3.00	46.30	5.65	87.21	8.00	40.00	2.25	11.25	5.25	26.25
87	do	8.00	123.48	4.25	65.60	5.37	82.88	8.60	40.00	3.00	15.00	6.40	32.00
88	do	6.50	100.32	3.50	54.02	4.69	72.39	7.75	38.75	3.25	16.25	5.69	28.45
	Average	9.76	150.64	3.81	58.81	5.78	89.21	8.54	42.70	3.26	16.30	6.16	30.80
41	Hip	10.50	162.06	4.25	65.60	7.31	112.83	8.75	43.75	4.00	20.00	6.60	33.00
45	do	20.00	308.69	5.50	84.89	12.46	192.16	8.00	40.00	0.50	2.50	4.21	21.05
46	do	13.50	208.37	4.00	61.74	9.55	147.40	8.00	40.00	2.00	10.00	5.07	25.35
52	do	11.00	169.78	2.56	38.59	4.92	75.94	7.00	35.00	1.00	5.00	4.27	21.35
56	Hip, top of wrinkle	12.50	192.93	3.75	57.88	7.75	119.93	8.50	42.50	2.00	10.00	5.13	25.65
56	Hip, between wrinkle	12.50	192.93	3.50	54.02	7.32	112.98	8.75	43.75	2.50	12.50	5.42	27.10
57	Hip	14.00	216.08	5.75	88.75	8.65	133.51	8.25	41.25	2.75	13.75	5.31	26.55
58	Hip, top of wrinkle	13.00	200.65	4.25	65.60	7.35	113.44	7.00	35.00	1.75	8.75	3.81	19.05
58	Hip, between wrinkle	10.75	165.92	3.00	46.30	5.78	89.21	6.50	32.50	2.00	10.00	3.86	19.30
70	Hip	15.00	231.52	4.00	61.74	7.98	123.17	8.00	40.00	1.00	5.00	3.45	17.25
74	do	20.00	308.69	8.00	123.48	12.35	190.62	8.25	41.25	2.75	13.75	5.65	28.25
75	do	17.75	273.96	6.00	92.61	9.30	143.54	7.00	35.00	2.00	10.00	4.65	23.25
76	do	13.50	208.37	5.75	88.75	9.04	139.53	6.06	30.00	1.50	7.50	4.10	20.50
77	do	14.00	216.08	4.25	65.60	7.92	122.24	7.00	35.00	3.00	15.00	4.70	23.50
80	do	8.00	123.48	3.00	46.30	5.08	78.41	7.00	35.00	2.75	13.75	5.17	25.85
81	do	14.75	227.66	5.00	77.17	9.53	147.09	8.00	40.00	2.00	10.00	4.61	23.05
83	do	24.00	370.43	3.00	46.30	14.30	220.71	7.50	37.50	1.50	7.50	3.29	16.45
84	do	8.25	127.34	2.25	34.73	4.82	74.39	5.25	26.25	1.00	5.00	2.38	11.90
85	do	6.00	92.61	3.00	46.30	4.27	65.91	6.75	33.75	1.00	5.00	3.92	19.60
86	do	15.00	231.51	3.00	46.30	5.93	91.53	8.50	42.50	1.75	8.75	4.32	21.60
87	do	9.75	150.49	3.50	54.02	5.55	85.66	7.00	35.00	1.00	5.00	4.25	21.25
88	do	14.00	216.08	3.00	46.30	6.88	106.19	7.75	38.75	1.00	5.00	4.10	20.50
	Average	13.53	208.83	4.13	63.74	7.92	122.24	7.49	37.45	1.85	9.25	4.47	22.35
50		3.50	54.02	1.25	19.29	2.48	38.28	9.00	45.00	2.00	1.00	5.60	28.00
98		4.50	69.46	1.50	23.15	2.90	44.76	8.75	43.75	1.00	5.00	5.96	29.80
99a		4.50	69.46	1.00	15.44	2.75	42.44	9.00	45.00	2.00	10.00	6.00	30.00
100		4.25	65.60	1.75	27.01	2.61	40.28	7.75	38.75	2.50	12.50	5.38	26.90
102		4.00	61.74	1 25	19.29	2.49	38.43	7.50	37.50	1.50	7.50	4.86	24.30
103		7.25	111.90	2.75	42.44	4.62	71.73	8.50	42.50	2.00	10.00	5.39	26.95
347		14.25	219.94	2.75	42.44	6.97	107.58	8.00	40.00	1.00	5.00	3.65	18.25
348		16.00	284.35	2.00	30.87	6.02	92.92	7.25	36.25	1.00	5.00	5.29	26.95
351		9.25	142.77	2.00	30.87	4.24	65.44	7.25	36.25	1.50	7.50	4.65	23.25
352		12.75	196.79	3.00	46.30	5.42	83.66	7.75	38.75	1.25	6.25	4.65	23.25
353		10.00	154.35	3.00	46.30	5.40	83.35	7.50	37.50	1.00	5.00	4.33	21.65
354		9.00	138.91	2.75	42.44	4.81	74.24	7.00	35.00	1.00	5.00	3.84	19.20
355		12.00	185.22	3.75	57.88	6.85	105.73	6.50	32.50	1.25	6.25	3.83	19.15
356		8.00	123.48	3.00	46.30	5.29	81.65	8.00	40.00	1.00	5.00	4.59	22.95
357		17.75	273.96	4.00	61.74	8.94	137.98	8.00	40.00	1.50	7.50	4.86	24.30
358		8.75	135.05	4.50	69.46	5.95	91.84	8.25	41.25	1.00	5.00	4.49	22.45
	General average	11.08	171.02	3.68	56.80	6.42	99.09	7.95	39.75	2.42	12.10	5.21	26.05

TABLE XVIII.—*General extremes and averages, showing influence of breed, sex, and portion of fleece upon strain and stretch.*

Catalogue No. of samples.	Portion of fleece represented.	STRAIN.						STRETCH.					
		Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
	Name of breed represented:	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per ct.*	*mm.*	*per ct.*	*mm.*	*per ct.*
	Cotswold	44.54	687.46	16.10	248.50	30.44	469.83	11.00	55.00	2.13	10.65	7.09	35.45
	Leicester	30.00	463.04	15.50	239.24	23.70	365.80	8.00	40.00	2.50	12.50	5.61	28.05
	Lincoln	36.72	566.76	15.97	246.49	25.66	396.05	9.43	47.15	3.80	19.00	7.07	35.35
	Southdown	21.29	328.60	6.48	100.02	12.78	197.25	7.94	39.70	1.69	8.45	4.59	22.95
	Oxford	45.15	696.87	19.15	295.57	30.43	469.67	9.08	45.40	3.25	16.25	6.61	33.05
	Merino	11.92	183.98	3.86	59.58	7.35	113.44	7.99	39.95	2.14	10.70	5.74	28.70
	COTSWOLD.												
	Ram.												
	Whole fleece	45.47	701.81	17.49	269.95	30.69	473.69	11.82	59.10	2.01	10.05	7.33	36.67
	Shoulder	42.58	257.21	17.67	272.73	27.80	329.08	8.83	44.15	3.08	15.40	6.58	32.90
	Side	50.18	774.51	17.50	270.11	33.34	514.59	9.75	48.75	1.33	6.65	6.53	32.65
	Hip	55.00	848.90	25.92	400.06	38.63	596.24	9.50	47.50	3.42	17.10	7.76	38.80
	Ewe.												
	Whole fleece	44.46	686.22	15.71	242.48	31.09	479.47	9.88	49.15	2.31	11.55	6.96	34.75
	Shoulder	48.58	749.81	15.83	244.33	32.16	496.38	8.67	43.35	4.75	23.75	6.78	33.90
	Side	49.17	758.92	18.83	290.63	34.08	526.01	9.50	47.50	2.75	13.75	6.75	33.75
	Hip	46.83	722.80	20.50	316.41	36.83	568.46	9.50	47.50	3.17	15.85	7.63	38.15
	LINCOLN.												
	Ram.												
	Whole fleece	34.58	533.73	13.29	205.13	24.30	375.06	8.67	43.35	2.83	14.17	6.52	32.60
	Shoulder	36.00	555.65	17.00	262.39	26.87	414.73	8.00	40.00	5.60	25.00	6.98	34.90
	Side	36.00	555.65	10.00	154.35	23.42	361.48	9.00	45.00	4.00	20.00	7.25	37.60
	Hip	45.00	694.56	23.00	355.00	34.40	530.95	8.75	43.75	5.00	25.00	7.16	35.80
	Ewe.												
	Whole fleece	37.03	511.54	17.67	272.73	26.56	409.94	9.94	49.70	4.44	22.20	7.44	37.20
	Shoulder	38.18	600.10	20.13	310.70	23.82	367.65	9.00	45.00	5.50	27.50	7.40	37.00
	Side	41.50	640.54	21.75	327.99	31.06	488.66	10.13	50.65	6.75	33.75	8.29	41.45
	Hip	45.75	706.13	22.13	341.57	32.35	499.31	9.88	49.40	5.50	27.50	7.82	39.10
	SOUTHDOWN.												
	Ram.												
	Whole fleece	20.75	320.27	4.92	75.94	11.56	178.42	7.92	39.60	1.19	5.95	4.07	20.35
	Shoulder	17.75	273.96	8.50	131.19	12.46	192.31	6.50	32.50	1.00	5.00	3.06	15.30
	Side	19.25	297.12	8.00	123.48	11.60	179.04	8.00	40.00	3.25	16.25	6.05	30.25
	Hip	19.00	293.26	7.50	115.76	13.41	206.98	8.00	40.00	4.00	20.00	6.33	31.65
	Ewe.												
	Whole fleece	21.58	333.08	7.38	113.92	13.45	207.60	7.95	39.75	1.88	9.80	4.88	24.40
	Shoulder	19.54	301.73	7.25	111.90	12.51	193.09	7.88	39.40	2.63	13.15	5.21	26.05
	Side	20.08	309.93	7.38	113.91	12.26	189.08	8.38	41.90	2.63	13.15	5.73	28.65
	Hip	25.58	394.82	9.71	149.87	16.88	260.54	7.71	38.55	1.58	7.90	4.54	22.70
	OXFORD.												
	Ram.												
	Whole fleece	44.08	680.36	12.97	292.79	29.90	461.49	9.03	45.15	3.56	17.80	6.82	34.10
	Shoulder	41.42	639.19	21.17	326.75	30.28	467.36	8.67	43.35	3.42	17.10	6.13	30.65
	Side	42.92	662.45	16.33	252.05	28.69	442.82	9.67	48.35	5.33	26.65	7.87	39.35
	Hip	47.92	739.63	19.42	299.74	30.73	474.31	8.75	43.75	1.92	9.60	6.16	30.80
	Ewe.												
	Whole fleece	48.33	745.93	19.67	303.60	32.00	493.91	9.25	46.25	2.33	11.65	6.26	31.30
	Shoulder	47.75	737.00	16.00	246.95	31.04	492.98	8.25	41.25	1.75	8.75	5.22	26.10
	Side	47.00	725.44	22.00	339.56	30.99	478.32	10.00	50.00	4.00	20.00	7.46	37.36
	Hip	50.25	775.59	21.00	324.13	33.08	510.58	9.50	47.50	1.25	6.25	6.11	30.55
	MERINO.												
	Ram.												
	Whole fleece	13.17	203.27	4.13	63.74	7.47	115.30	8.01	40.05	2.24	11.20	5.10	25.50
	Neck	16.13	248.98	7.75	119.62	11.40	175.96	8.50	42.50	2.88	14.40	5.46	27.30
	Shoulder	12.29	189.69	3.89	60.04	6.73	103.88	8.19	40.95	2.43	12.15	5.37	26.85
	Side	11.31	174.57	3.85	59.42	6.29	97.08	8.58	42.90	2.77	13.85	5.83	29.15
	Hip	16.12	248.81	4.45	68.68	8.83	136.29	7.42	37.10	1.76	8.80	4.35	21.75
	Ewe.												
	Whole fleece	11.08	171.02	3.68	56.80	6.42	99.09	7.95	39.75	2.42	12.10	5.21	26.05
	Neck	15.13	233.53	4.88	75.32	8.59	132.58	7.94	39.70	2.69	13.45	5.23	26.15
	Shoulder	10.36	159.90	3.77	58.19	5.16	95.08	8.01	40.05	3.00	15.00	5.44	27.20
	Side	9.78	150.64	3.81	58.81	5.78	89.21	8.34	42.70	3.26	16.30	5.16	30.80
	Hip	13.53	208.83	4.13	63.74	7.92	122.24	7.49	37.45	1.85	9.25	4.47	22.35
	CROSS-BREEDS.												
111	Cotswold and Leicester	30.00	463.08	8.75	135.05	22.74	350.98	8.75	43.75	3.00	15.00	6.92	34.60
19	Cotswold and Southdown	20.00	308.69	7.25	111.90	11.78	181.82	7.50	37.50	1.00	5.00	3.44	17.20
129	One-half Cotswold, one-half Merino	11.25	173.64	3.00	46.30	7.48	115.45	8.00	40.00	2.50	12.50	5.41	27.05
15	..... do	6.50	100.33	2.00	30.87	3.20	49.39	7.00	35.00	2.00	10.00	5.30	26.50
20	Cotswold and Merino	10.00	154.35	3.00	46.30	6.60	103.26	8.00	40.00	2.00	10.00	5.05	25.25
24	..... do	10.00	154.35	2.75	42.45	5.97	92.15	8.00	40.00	1.50	7.50	4.82	24.10
14	Cotswold and Australian Merino	5.00	77.17	2.50	38.59	3.74	57.73	8.25	41.25	1.00	5.00	5.09	25.45
126	Seven-eighths Leicester, one-eighth Merino	14.75	227.66	4.00	61.74	7.88	121.62	7.00	35.00	1.00	5.00	3.22	16.10
128	Seven-eighths Spanish Merino, one-eighth Australian Merino.	5.25	80.03	2.00	30.87	3.58	55.26	8.00	40.00	1.00	5.00	4.45	22.25

TABLE XIX.—*Individual extremes and averages, showing influence of breed, sex, and portion of fleece upon strain and stretch.*

Catalogue No of samples.	Age and portion of fleece represented.	STRAIN.						STRETCH.					
		Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
	COTSWOLD.												
	Ram.												
	Lamb:	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per ct.*	*mm.*	*per ct.*	*mm.*	*per ct.*
172		30.00	463.04	9.00	138.91	17.16	264.86	10.75	53.75	1.00	5.00	6.38	31.90
185		34.00	524.78	15.00	321.52	24.79	382.62	8.00	40.00	1.00	5.00	4.43	22.15
	Average	32.00	493.91	12.00	185.22	20.98	323.82	9.38	46.90	1.00	5.00	5.41	27.05
	6 months:												
36	Shoulder	31.00	478.47	15.50	239.24	24.35	375.83	8.50	42.50	1.50	7.50	6.01	30.05
	Side	38.75	598.09	9.50	146.63	24.27	374.60	10.75	53.75	1.25	6.25	5.93	29.65
	Hip	39.00	[illegible]	19.75	304.83	29.20	450.69	9.00	45.00	2.00	10.00	7.50	37.50
	Average	36.25	559.50	14.92	230.28	25.94	400.37	9.42	47.10	1.58	7.90	6.48	32.40
	1 year:												
34	Shoulder	41.00	632.82	16.50	254.67	25.66	396.05	8.00	40.00	2.00	10.00	6.44	32.20
	Side	51.00	771.73	20.00	308.69	35.75	551.79	9.00	45.00	1.25	6.25	6.09	30.45
	Hip	62.00	956.95	27.50	424.45	41.24	636.52	10.00	50.00	5.25	26.25	7.99	39.95
174		40.50	625.10	12.50	192.93	25.19	388.80	20.50	102.50	2.00	10.00	9.58	47.90
184		43.00	663.69	18.75	289.40	31.25	482.33	8.25	41.25	1.25	6.25	5.43	27.15
	Average	47.50	733.14	19.05	294.03	31.82	491.13	11.15	55.75	2.35	11.75	7.11	35.55
	2 years:												
175		48.50	748.58	16.00	246.95	35.54	548.55	25.00	125.00	2.00	10.00	12.25	61.25
176		47.50	733.14	12.00	185.22	32.91	507.95	26.00	130.00	1.25	6.25	12.36	61.80
[illegible]		42.00	652.11	17.75	273.96	27.78	428.77	8.25	41.25	1.00	5.00	5.22	26.10
	Average	46.00	709.99	15.25	235.38	32.08	495.14	19.75	98.75	1.42	7.10	9.94	49.70
	Ewe.												
	Lamb:												
171		30.50	470.76	10.50	162.06	20.38	314.56	10.00	50.00	1.00	5.00	7.40	37.00
183		36.75	567.22	10.50	162.06	24.08	371.66	9.75	48.75	1.25	6.25	6.97	34.85
187		40.75	628.96	16.25	250.81	27.75	428.31	8.75	43.75	1.00	5.00	5.21	26.05
	Average	36.00	555.65	12.42	191.70	24.07	371.51	9.50	47.50	1.08	5.40	6.53	32.65
	6 months:												
37	Shoulder	51.00	787.16	15.50	239.24	32.20	496.99	8.75	43.75	4.00	20.00	6.66	33.30
	Side	38.00	586.52	11.00	169.78	26.36	406.86	9.00	45.00	1.00	5.00	4.75	23.75
	Hip	40.00	617.38	18.00	277.82	30.35	468.44	9.50	47.50	0.50	2.50	6.33	31.43
	Average	43.00	663.69	14.83	228.89	20.64	457.48	9.08	45.40	1.83	9.15	5.91	29.55
	1 year:												
33	Shoulder	47.75	737.00	16.00	246.95	34.32	529.72	8.50	42.50	5.25	26.25	6.83	34.16
	Side	57.00	879.77	25.50	393.58	39.61	611.36	9.50	47.50	3.25	16.25	7.83	39.15
	Hip	40.50	625.10	23.50	362.71	32.72	505.02	9.00	45.00	6.00	30.00	8.20	41.00
179		38.50	594.23	13.75	212.23	26.49	408.86	8.75	43.75	2.50	12.50	6.53	32.65
189		43.25	667.55	13.75	212.23	32.03	494.37	8.00	40.00	1.00	5.00	6.09	30.45
	Average	45.40	700.73	18.50	285.54	33.04	509.96	8.75	43.75	3.60	18.00	7.10	35.50
	2 years:												
177		44.75	690.70	15.50	239.24	31.17	740.86	21.75	108.75	2.25	11.25	10.47	52.35
178		45.50	702.27	12.00	185.22	26.86	414.57	10.50	52.50	1.50	7.50	6.53	32.65
180		44.00	679.12	21.00	324.13	31.13	480.48	9.00	43.33	1.25	6.25	7.26	36.30
181		49.50	764.01	11.00	169.78	35.04	540.83	10.00	50.00	1.25	6.25	7.10	35.50
182		42.00	648.25	12.00	185.22	28.63	441.89	8.75	43.75	1.00	5.00	6.58	32.90
190		40.00	617.38	12.50	192.93	27.23	420.28	8.25	41.25	0.25	1.25	5.23	26.15
	Average	44.29	683.60	14.00	216.08	30.01	463.19	11.38	56.90	1.25	6.25	7.20	36.00
	LINCOLN.												
	Ram.												
	Lamb:												
165		27.50	424.45	11.50	177.50	17.72	273.50	8.00	40.00	0.75	3.75	4.67	23.35
	1 year:												
167		33.00	509.34	11.25	173.64	22.75	351.14	9.50	47.50	1.00	5.00	6.63	33.15
	2 years:												
166		30.00	463.04	7.00	108.04	20.62	318.26	8.75	43.75	1.25	6.25	6.16	[illegible]
	5½ years:												
10	Shoulder	36.00	555.65	17.00	262.39	26.87	414.73	8.00	40.00	5.00	25.00	6.98	34.90
	Side	36.00	555.65	10.00	154.35	23.42	361.48	9.00	45.00	4.00	20.00	7.52	37.60
	Hip	45.00	694.56	23.00	355.00	34.40	530.95	8.75	43.75	5.00	25.00	7.16	35.80
	Average	39.00	601.95	16.67	257.30	28.23	435.72	8.58	42.90	4.67	23.35	7.22	36.10
	Ewe.												
	Lamb:												
61	Shoulder	29.25	451.46	20.25	312.55	23.88	368.58	9.50	47.50	5.00	25.00	7.38	36.90
	Side	31.00	478.47	18.50	285.54	25.55	394.35	10.25	51.25	7.25	36.25	8.67	43.35
	Hip	42.50	655.97	19.25	297.12	28.80	444.52	11.00	55.00	6.00	30.00	8.24	41.20
164		32.25	497.77	14.25	219.94	23.18	357.77	9.25	46.25	1.25	6.25	6.58	32.90
	Average	33.75	520.92	18.06	278.75	25.60	395.13	10.00	50.00	4.88	24.40	7.72	38.60
	2 years:												
60	Shoulder	48.50	748.58	20.00	308.69	23.75	520.30	8.50	42.50	6.00	30.00	7.41	[illegible]
	Side	52.00	802.60	24.00	370.42	37.77	582.96	10.00	50.00	6.25	31.25	7.90	39.50
	Hip	49.00	756.30	25.00	393.58	35.89	553.95	8.75	43.75	5.00	25.00	7.39	36.95
168		25.25	389.72	10.00	154.38	17.75	273.96	9.50	47.50	1.25	6.25	6.27	31.35
169		33.50	517.00	8.50	131.19	22.50	347.28	12.75	63.75	2.00	10.00	7.14	35.70
	Average	41.65	642.85	17.50	270.11	27.53	424.91	9.90	49.50	4.10	20.50	7.22	36.10

TABLE XIX.—*Individual extremes and averages, showing influence of breed, sex, &c.*—Continued.

Catalogue No. of samples.	Portion of fleece represented.	STRAIN.						STRETCH.					
		Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
	SOUTHDOWN.												
	Ram.												
	Lamb:	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per ct.*	*mm.*	*per ct.*	*mm.*	*per ct.*
138		15.50	239.23	3.50	54.02	8.11	125.17	7.25	36.25	0.75	3.75	3.00	15.15
139		26.25	405.16	3.50	54.02	10.87	167.77	8.00	40.00	0.75	3.75	3.33	16.80
140		20.25	312.55	4.00	61.74	10.34	159.59	8.00	40.00	1.00	5.00	3.55	17.75
	Average	20.67	319.03	3.67	56.65	9.77	150.80	6.42	32.10	0.83	4.17	3.31	16.55
	1 year:												
135		23.75	366.57	6.00	92.61	12.70	197.40	6.75	33.75	0.75	3.75	3.62	18.10
136		22.00	339.56	4.00	61.74	11.64	179.67	7.75	38.75	0.25	1.25	3.93	19.65
137		22.50	347.28	4.00	61.74	13.82	213.31	10.00	50.00	1.25	6.25	4.54	22.70
	Average	22.75	351.14	4.67	72.08	12.75	196.79	8.17	40.85	0.75	3.75	4.03	20.15
	2 years:												
62	Shoulder	17.75	273.96	8.50	131.19	12.46	192.31	6.50	32.50	1.00	5.00	3.06	15.30
	Side	19.25	297.12	8.00	123.48	11.60	179.04	8.00	40.00	3.25	16.25	6.05	30.25
	Hip	19.00	293.26	7.50	115.76	13.41	206.96	8.00	40.00	4.00	20.00	6.33	31.65
133		16.25	250.81	4.50	69.46	9.99	154.09	8.50	42.50	0.50	2.50	3.45	17.25
	Average	18.06	278.75	7.13	110.05	11.87	183.21	7.78	38.90	2.19	10.95	4.72	23.60
	3 years:												
132		28.00	432.17	2.50	38.59	10.92	168.55	8.25	41.25	0.25	1.25	3.63	18.15
	4 years:												
134		18.50	285.54	3.00	46.30	12.73	196.48	8.00	40.00	0.50	2.50	4.34	21.70
	Ewe.												
	6 months:												
95	Shoulder	15.00	231.52	7.25	111.90	10.80	166.69	8.00	40.00	2.50	12.50	5.46	27.30
	Side	14.00	216.08	4.50	69.46	9.26	142.92	8.50	42.50	1.50	7.50	4.90	24.50
	Hip	20.00	308.69	6.00	92.61	12.73	196.48	7.25	36.25	1.25	6.25	3.69	18.45
	Average	16.33	252.05	5.92	91.37	10.93	168.70	6.58	32.90	1.75	8.75	4.68	23.40
	1 year:												
63	Shoulder	20.00	308.69	7.50	115.76	13.68	211.15	8.00	40.00	4.50	22.50	6.19	30.95
	Side	22.00	339.54	6.00	92.60	11.70	180.50	10.00	50.00	2.50	12.50	6.88	34.40
	Hip	22.00	339.56	11.00	169.78	16.33	252.05	7.75	38.75	3.50	17.50	5.81	29.05
92	Shoulder	26.00	401.30	7.50	115.76	14.38	221.95	8.25	41.25	4.50	22.50	6.24	31.20
	Side	23.00	354.99	8.75	135.05	13.57	209.43	7.00	35.00	3.25	16.25	5.62	28.10
	Hip	33.00	509.34	13.00	200.65	21.46	331.23	8.00	40.00	1.00	5.00	4.54	22.70
94	Shoulder	21.50	331.84	8.00	123.48	11.95	184.44	7.75	38.75	1.25	6.25	4.69	23.45
	Side	21.00	324.13	7.75	119.62	12.33	190.31	8.00	40.00	2.50	12.50	5.65	28.25
	Hip	26.50	409.02	9.25	142.77	18.23	280.09	7.00	35.00	1.50	7.50	4.77	23.85
141		18.75	289.40	3.50	54.02	11.14	171.94	8.00	40.00	0.25	1.25	3.53	17.65
	Average	23.38	360.80	8.23	127.03	14.53	224.26	7.98	39.90	2.48	12.40	5.39	26.95
	2 years:												
91	Shoulder	14.75	227.66	6.75	104.18	11.71	180.74	7.00	35.00	1.50	7.50	4.10	20.50
	Side	19.50	300.97	8.00	123.44	13.24	204.35	9.00	45.00	3.50	17.50	5.75	28.75
	Hip	29.00	447.60	11.00	169.78	17.55	270.88	8.25	41.25	1.00	5.00	4.19	20.95
111		22.50	347.28	5.25	81.03	11.90	183.67	7.25	36.25	1.00	5.00	3.59	17.95
142		18.75	289.40	3.00	46.30	9.09	140.30	7.75	38.75	0.75	3.75	4.08	20.40
143		23.50	362.71	3.50	54.02	13.22	204.05	8.25	41.25	0.25	1.25	3.24	16.20
	Average	21.33	329.22	6.25	96.47	12.79	197.40	7.92	39.60	1.33	6.65	4.16	20.80
	3 years:												
93	Shoulder	20.00	308.69	6.50	100.32	12.54	193.55	8.25	41.25	1.50	7.50	4.55	22.75
	Side	21.00	323.13	9.25	142.77	14.15	218.40	7.75	38.75	2.50	12.50	5.69	28.45
	Hip	23.00	355.00	8.00	123.48	14.53	223.80	8.00	40.00	1.25	6.25	4.26	21.30
	Average	21.33	329.22	7.92	122.24	13.74	211.92	8.00	40.00	1.75	8.75	4.80	24.00
	OXFORD.												
	Ram.												
	1 year:												
66	Shoulder	31.00	478.47	12.00	185.22	20.90	322.58	8.50	42.50	2.00	10.00	5.58	27.90
	Side	39.75	613.52	11.50	177.50	24.84	383.40	10.25	36.10	6.00	30.00	8.46	42.30
	Hip	38.00	586.52	19.25	297.12	26.53	409.48	9.00	45.00	2.25	11.25	6.20	31.00
	Average	36.25	559.51	14.25	219.94	24.09	371.82	9.25	46.25	3.42	17.10	6.75	33.75
	2 years:												
65	Shoulder	42.25	652.11	20.75	320.27	29.97	462.57	9.00	45.00	4.25	21.25	6.64	33.20
	Side	32.00	493.91	12.00	185.21	19.70	304.06	8.75	43.75	4.50	22.50	7.03	35.15
	Hip	46.75	721.57	18.50	285.54	27.99	532.01	9.00	45.00	1.50	7.50	5.97	29.85
	Average	40.33	622.48	17.08	263.62	25.89	399.60	8.92	44.60	3.42	17.10	6.55	32.75
	Ewe.												
	1 year:												
64	Shoulder	47.75	737.00	16.00	246.93	31.94	292.98	8.25	41.25	1.75	8.75	5.22	26.10
	Side	47.00	725.44	22.00	339.56	30.99	478.32	10.00	50.00	4.00	20.00	7.46	37.30
	Hip	50.25	775.50	21.00	324.13	33.08	510.58	9.50	47.50	1.25	6.25	6.11	30.55
	Average	48.33	745.95	19.67	303.60	32.00	493.91	9.25	46.25	2.30	11.50	6.26	31.30
	MERINO.												
	Ram.												
	Lamb:												
79	Shoulder	9.00	138.91	4.00	61.74	5.92	91.37	8.00	40.00	2.25	11.25	5.51	27.55
	Side	9.00	138.91	4.25	65.60	5.63	86.90	9.00	45.00	3.25	16.25	6.25	31.25
	Hip, top of wrinkle	10.75	165.92	5.25	81.03	7.72	119.15	7.00	35.00	3.00	15.00	4.67	23.35
	Hip, between wrinkle	12.50	192.93	5.00	77.17	7.56	116.69	7.00	35.00	3.00	15.00	5.01	25.05
	Average	10.31	159.13	4.63	71.46	6.70	103.41	7.75	38.75	2.87	14.35	5.36	26.80

TABLE XIX.—*Individual extremes and averages, showing influence of breed, sex, &c.*—Continued.

Catalogue No. of samples.	Portion of fleece represented.	STRAIN. Highest.		STRAIN. Lowest.		STRAIN. Average.		STRETCH. Highest.		STRETCH. Lowest.		STRETCH. Average.	
		grams.	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per ct.*	*mm.*	*per ct.*	*mm.*	*per ct.*
	MERINO—continued.												
	Ram—Continued.												
	5 months:												
78	Shoulder	9.50	146.63	4.25	65.60	6.17	95.25	7.25	36.25	1.75	8.75	4.51	22.55
	Side	11.00	169.78	4.50	69.46	5.67	87.51	8.75	43.75	4.00	20.00	6.21	31.05
	Hip	12.75	196.79	5.00	77.17	8.04	124.09	7.00	35.00	3.00	15.00	4.47	22.35
	Average	11.08	171.02	4.58	70.69	6.63	102.33	7.67	38.35	2.92	14.60	5.06	25.30
	1 year:												
81	Shoulder	22.00	339.56	4.00	61.74	9.31	143.70	10.75	53.75	3.25	16.25	6.72	33.60
	Side	12.00	185.21	4.00	61.74	6.98	107.73	8.25	41.25	3.00	15.00	5.53	27.65
	Hip	26.50	509.02	4.25	65.60	10.70	165.15	8.00	40.00	1.00	5.00	4.95	24.75
82	Shoulder	9.75	150.49	4.75	73.31	6.75	104.18	6.75	33.75	2.25	11.25	4.75	23.75
	Side	11.00	169.78	4.00	61.74	6.40	98.78	8.00	40.00	2.00	10.00	4.51	22.85
	Hip	18.25	281.68	5.00	77.17	8.90	137.37	7.25	36.25	3.00	15.00	4.69	23.45
89	Shoulder	9.00	138.91	3.00	46.30	5.04	83.35	9.50	47.50	1.25	6.25	5.71	28.55
	Side	11.00	169.78	4.00	61.74	5.58	86.12	8.00	40.00	3.25	16.25	5.90	29.50
	Hip	12.75	196.79	4.00	61.74	6.31	97.39	7.50	37.50	1.50	7.50	4.59	22.95
249	Top of wrinkle	14.25	219.94	3.00	46.30	6.97	107.58	7.75	38.75	1.00	5.00	3.65	18.25
	Between wrinkle	13.00	200.65	3.50	54.02	5.10	78.72	7.00	35.00	1.50	7.50	3.86	19.30
	Average	14.50	223.80	3.95	60.97	7.09	109.43	8.06	40.30	2.09	10.45	4.99	24.95
	2 years:												
10	Neck, top of wrinkle	20.00	308.69	9.00	138.91	13.61	210.07	8.25	41.25	2.50	12.50	5.43	27.15
	Neck, between wrinkle	12.25	189.07	6.50	100.33	9.18	141.69	8.75	43.75	3.25	16.25	5.48	27.40
	Shoulder	13.75	212.23	5.50	84.89	9.47	130.73	8.25	41.25	3.25	16.25	5.75	28.75
	Side	14.00	216.08	6.00	92.61	9.19	141.84	8.75	43.75	2.25	11.25	5.49	27.45
	Hip	12.25	189.07	5.75	88.75	8.76	135.21	8.25	41.25	2.75	13.75	5.68	28.40
48	Shoulder, top of wrinkle	15.75	243.09	3.50	54.02	8.28	127.80	8.25	41.25	2.00	10.00	5.30	26.50
	Shoulder, between wrinkle	13.25	204.51	4.00	61.74	7.83	120.78	8.25	41.25	2.75	13.75	6.35	31.75
	Side	15.75	243.09	4.00	61.74	8.43	130.11	9.75	48.75	3.00	15.00	6.41	32.05
	Hip	23.50	362.71	4.50	69.46	11.78	181.82	8.25	41.25	1.00	5.00	4.41	22.05
53	Shoulder	5.50	84.89	2.00	30.87	3.29	50.78	9.00	45.00	4.00	20.00	6.32	31.60
	Shoulder, top of wrinkle	25.00	385.86	6.50	100.32	10.54	162.68	7.50	37.50	3.25	16.25	5.45	27.25
	Shoulder, between wrinkle	8.50	131.19	3.25	50.16	5.76	88.90	7.75	38.75	2.00	10.00	4.83	24.15
	Side	8.00	123.48	3.00	46.30	4.48	69.14	8.50	42.50	1.50	7.50	5.75	28.75
	Hip	8.00	123.48	2.00	30.87	4.80	74.08	7.00	35.00	1.00	5.00	4.14	20.70
	Hip, top of wrinkle	32.50	501.62	7.75	119.62	18.05	278.59	8.00	40.00	2.00	10.00	5.06	25.30
	Hip, between wrinkle	9.50	146.63	2.50	38.59	5.62	86.74	7.75	38.75	1.50	7.50	4.61	23.05
71	Shoulder	7.75	119.62	3.00	46.30	4.98	76.86	7.75	38.75	2.25	11.25	5.13	25.65
	Side	9.00	138.91	4.00	61.74	5.86	90.45	9.00	45.00	2.00	10.00	6.08	30.40
	Hip	13.00	200.65	4.00	61.74	8.10	125.02	7.00	35.00	1.00	5.00	3.63	18.15
250		12.75	196.79	3.00	46.30	5.71	88.13	8.00	40.00	1.50	7.50	4.60	23.00
	Average	14.00	216.08	4.49	69.30	8.19	126.41	8.20	41.00	2.24	11.20	5.29	26.45
	3 years:												
54	Shoulder, top of wrinkle	29.00	447.60	4.00	61.74	10.62	164.07	8.50	42.50	1.00	5.00	3.86	19.30
	Shoulder, between wrinkle	7.50	115.76	2.75	42.44	5.28	81.49	8.00	40.00	1.75	8.75	5.10	25.50
	Hip, top of wrinkle	20.00	308.69	4.00	61.74	11.08	171.02	6.90	30.00	1.00	5.00	2.77	13.85
	Hip, between wrinkle	10.00	154.35	3.50	54.02	5.92	91.37	6.00	30.00	1.50	7.50	3.67	18.35
55	Shoulder, top of wrinkle	16.50	254.67	5.00	77.17	8.95	138.14	8.25	41.25	4.00	20.00	6.16	30.80
	Shoulder, between wrinkle	7.50	115.76	4.00	61.74	5.33	82.27	7.75	38.75	4.00	20.00	5.93	29.65
	Side	11.00	169.78	3.00	46.30	5.47	84.43	9.50	47.50	2.00	10.00	5.42	27.10
	Hip, top of wrinkle	11.50	177.50	2.00	30.87	5.74	88.59	8.50	42.50	1.00	5.00	3.97	19.85
	Hip, between wrinkle	9.00	138.91	2.75	42.44	5.45	84.12	9.00	45.00	1.50	7.50	4.60	23.00
166		12.00	185.22	5.00	77.17	7.73	119.31	7.50	37.50	1.00	5.00	4.59	22.95
	Average	13.40	206.82	3.60	55.56	7.13	110.05	7.90	39.50	1.88	9.40	4.61	23.05
	4 years:												
47	Shoulder	12.50	192.93	4.00	61.74	6.19	95.54	7.25	36.25	0.75	3.75	4.48	22.40
	Side	13.75	212.23	4.00	61.74	7.72	119.15	9.25	46.25	3.00	15.00	6.48	32.40
	Hip	27.00	416.73	4.75	73.31	13.22	204.05	8.00	40.00	2.00	10.00	4.63	23.15
73	Shoulder	13.50	208.37	5.00	77.17	8.22	126.87	8.25	41.25	3.00	15.00	5.77	28.85
	Side	12.25	189.07	4.00	61.74	7.16	110.51	8.00	40.00	4.00	20.00	6.20	31.00
261	Hip	14.00	216.08	5.25	81.03	8.21	126.72	7.00	35.00	1.00	5.00	3.87	19.35
		8.75	135.05	3.00	46.30	5.01	77.33	7.00	35.00	2.00	10.00	3.47	22.35
	Average	14.54	224.42	4.29	66.21	7.96	122.86	7.82	39.10	2.25	11.25	5.13	25.65
	6 years:												
69	Shoulder	10.00	154.35	4.25	65.60	6.47	99.86	9.00	45.00	1.75	8.75	5.88	29.40
	Side	15.00	231.52	4.00	61.74	6.90	106.50	9.00	45.00	3.25	16.25	6.35	31.75
	Hip	19.25	297.12	5.25	81.04	10.66	164.53	8.00	40.00	2.00	10.00	4.80	24.00
104		8.00	123.48	2.25	34.73	4.21	64.98	7.75	38.75	2.25	11.25	5.53	27.65
104a		7.00	108.04	1.75	27.01	3.70	57.10	8.00	40.00	2.25	11.25	5.60	28.00
	Average	11.85	182.90	3.50	54.02	6.39	98.63	8.35	41.75	2.30	11.50	5.63	28.15
	7 years:												
90	Shoulder	7.50	115.76	3.25	50.16	5.00	77.17	7.75	38.75	2.00	10.00	4.48	22.40
	Side	10.25	158.20	4.00	61.74	5.94	91.68	7.50	37.50	2.25	11.25	5.03	25.15
	Hip	12.00	185.22	4.25	65.60	6.96	107.43	6.75	33.75	1.00	5.00	3.43	17.15
	Average	9.92	153.11	3.83	59.11	5.97	92.14	7.33	36.65	1.75	8.75	4.31	21.55
	Ewe.												
	5 months:												
77	Shoulder	10.50	162.06	4.25	65.60	6.12	94.46	8.00	40.00	3.50	17.50	5.51	27.55
	Side	11.00	169.78	4.00	61.74	5.36	82.73	8.75	43.75	5.00	25.00	6.95	34.75
	Hip	14.00	216.08	4.25	65.60	7.92	122.24	7.00	35.00	3.00	15.00	4.70	23.50
	Average	11.83	182.59	4.17	64.36	6.47	99.86	7.92	39.60	3.83	19.15	5.72	28.60

TABLE XIX.—*Individual extremes and averages, showing influence of breed, sex, &c.*—Continued.

Catalogue No. of samples.	Portion of fleece represented.	STRAIN. Highest.		STRAIN. Lowest.		STRAIN. Average.		STRETCH. Highest.		STRETCH. Lowest.		STRETCH. Average.	
		grams.	grains.	grams.	grains.	grams.	grains.	mm.	per ct.	mm.	per ct.	mm.	per ct.
	MERINO—continued.												
	Ewe—Continued.												
	5½ months:												
42	Neck, top of wrinkle	15.00	231.52	4.00	61.74	7.98	123.17	8.00	40.00	3.25	16.25	5.58	27.90
	Neck, between wrinkle	15.50	239.24	4.25	65.60	8.05	124.25	7.75	38.75	1.50	7.50	5.03	25.15
	Side	14.00	216.08	5.75	88.75	8.46	130.58	9.00	45.00	4.00	20.00	6.65	33.25
	Hip	20.00	308.69	5.50	84.89	12.46	192.16	8.00	40.00	0.50	2.50	4.21	21.05
	Average	16.13	248.96	4.88	75.32	9.24	142.62	8.19	40.95	2.31	11.55	5.37	26.85
	1 year:												
41	Neck	10.00	154.35	3.25	50.16	5.00	77.17	8.00	40.00	2.00	10.00	4.28	21.40
	Side	12.00	185.22	3.75	57.88	5.88	90.76	8.75	43.75	1.75	8.75	6.25	31.25
	Hip	10.50	162.06	4.25	65.60	7.31	112.83	8.75	43.75	4.00	20.00	6.60	33.00
74	Shoulder	14.00	216.08	5.00	77.17	8.74	134.90	8.00	40.00	4.00	20.00	5.88	29.40
	Side	11.25	173.64	5.00	77.17	7.50	115.76	9.50	47.50	4.25	21.25	7.09	35.45
	Hip	20.00	308.69	8.00	123.48	12.35	190.62	8.25	41.25	2.75	13.75	5.63	28.25
75	Shoulder	12.75	196.79	5.50	84.89	7.68	118.54	7.00	35.00	2.25	11.50	3.93	19.65
	Side	11.00	169.78	5.00	77.17	7.75	119.62	8.50	42.50	4.25	21.25	6.51	32.55
	Hip	17.75	273.96	8.00	92.61	9.50	146.54	7.00	35.00	2.00	10.00	4.65	23.25
76	Shoulder	14.75	227.66	5.50	84.89	9.07	139.99	5.25	26.25	1.00	5.00	2.73	13.65
	Side	8.25	127.34	4.00	62.74	5.57	85.97	8.00	40.00	3.25	16.25	6.05	30.25
	Hip	13.50	208.37	5.75	88.75	9.04	139.53	6.00	30.00	1.50	7.50	4.10	20.50
78	Shoulder	13.75	212.23	4.50	69.46	7.49	115.61	8.00	40.00	3.25	16.25	5.42	27.10
	Side	9.00	138.91	3.75	57.87	5.61	86.59	7.50	37.50	3.50	17.50	5.50	27.50
	Hip	24.00	370.43	8.00	46.30	14.30	220.71	7.50	37.50	1.50	7.50	3.29	16.45
86	Shoulder	6.25	96.47	3.25	50.16	4.62	71.31	8.75	43.75	4.25	21.25	6.42	32.10
	Side	10.50	162.06	3.00	46.30	5.56	87.21	8.00	40.00	2.25	11.25	5.25	26.25
	Hip	15.00	231.52	3.00	46.30	5.83	91.53	8.50	42.50	1.75	8.75	4.32	21.60
347		14.25	219.94	2.75	42.44	6.97	107.58	8.00	40.00	1.00	5.00	3.65	18.25
348		16.00	246.95	2.00	30.87	6.02	92.92	7.25	36.25	1.00	5.00	5.29	26.45
	Average	13.23	204.20	4.31	66.52	7.59	117.15	7.83	39.15	2.58	12.90	5.14	25.70
	2 years:												
45	Shoulder	9.50	146.63	3.50	54.02	5.53	85.35	8.00	40.00	1.50	7.50	5.17	25.85
	Side	14.00	216.08	4.00	61.74	8.55	113.44	10.00	50.00	1.50	7.50	6.21	31.05
	Hip	13.50	208.37	4.00	61.74	9.55	147.40	7.00	40.00	2.00	10.00	5.07	25.35
57	Shoulder, top of wrinkle	27.00	416.73	5.00	77.17	11.31	174.56	8.50	42.50	2.25	11.25	5.83	29.15
	Shoulder, between wrinkle	8.50	131.19	3.25	50.16	5.55	85.66	9.50	47.50	4.00	20.00	6.54	32.70
	Hip	14.00	216.08	5.75	88.75	9.05	139.51	8.25	41.25	2.75	13.25	5.31	26.55
58	Shoulder, top of wrinkle	10.50	162.06	3.25	50.16	6.18	95.39	7.50	37.50	1.50	7.50	4.67	23.35
	Shoulder, between wrinkle	9.25	142.77	3.00	46.30	5.68	87.68	8.00	40.00	1.25	6.25	5.26	26.30
	Hip, top of wrinkle	13.00	200.65	4.25	65.60	7.35	113.44	7.00	35.00	1.75	8.75	3.81	19.05
	Hip, between wrinkle	10.75	165.93	3.00	46.30	5.78	89.21	6.50	32.50	2.00	10.00	3.86	19.30
79	Shoulder	11.50	177.50	3.25	54.02	5.28	86.63	7.75	38.75	2.00	10.00	4.64	23.20
	Side	10.00	154.35	3.75	57.88	5.60	90.90	9.00	45.00	2.25	11.25	6.03	30.15
	Hip	15.00	231.52	4.00	61.74	7.98	123.17	8.00	40.00	1.00	5.00	3.45	17.25
85	Shoulder	5.25	81.03	2.75	42.45	3.71	57.26	9.50	45.00	4.00	20.00	6.24	31.20
	Side	6.25	96.47	3.00	46.30	3.88	59.89	9.50	47.50	4.50	22.50	6.92	34.60
	Hip	6.00	92.61	3.00	46.30	4.27	65.91	6.75	33.75	1.00	5.00	3.92	19.60
351		9.25	142.77	2.00	30.87	4.24	65.44	7.25	36.25	1.50	7.50	4.65	23.25
352		12.75	196.79	3.00	46.30	5.42	83.66	7.75	38.75	1.25	6.25	4.65	23.25
353		10.00	154.35	3.00	46.30	5.40	83.35	7.50	37.50	1.00	5.00	4.33	21.65
354		9.00	138.91	2.75	42.44	4.81	74.24	7.00	35.00	1.00	5.00	3.94	19.70
355		12.00	185.22	3.75	57.88	6.85	105.73	6.50	32.50	1.25	6.25	3.83	19.15
356		8.00	123.48	3.00	46.30	5.29	81.65	8.00	40.00	1.00	5.00	4.59	22.95
357		17.75	73.96	4.00	61.74	8.94	137.98	8.00	40.00	1.50	7.50	4.86	24.30
358		8.75	135.05	4.50	69.46	5.95	91.84	8.25	41.25	1.00	5.00	4.49	22.45
	Average	11.31	174.57	3.34	54.64	6.29	97.08	7.98	39.90	1.86	9.30	4.92	24.60
	3 years:												
81	Shoulder	11.75	181.36	5.25	81.03	7.70	118.85	8.75	43.75	4.00	20.00	5.76	28.80
	Side	11.50	177.50	4.00	61.74	8.43	99.24	9.00	45.00	5.00	25.00	6.86	34.30
	Hip	14.75	227.66	5.00	77.17	9.53	147.09	8.00	40.00	2.00	10.00	4.61	23.05
83	Shoulder	8.25	127.34	3.00	46.30	4.66	71.92	9.00	45.00	3.75	18.75	5.95	29.75
	Side	6.50	100.32	3.50	54.02	4.69	72.39	7.75	38.75	3.25	16.25	5.69	28.45
	Hip	14.00	216.08	3.00	46.30	8.82	136.19	7.75	38.75	1.00	5.00	4.10	20.50
	Average	11.13	171.79	3.96	61.12	6.65	102.64	8.38	41.90	3.17	15.85	5.51	27.55
	4 years:												
80	Shoulder	8.50	131.19	3.00	46.30	5.23	80.73	8.50	42.50	4.00	20.00	6.63	33.15
	Side	8.50	131.19	3.25	50.16	4.70	72.54	9.25	46.25	5.00	25.00	7.28	36.40
	Hip	8.00	123.48	3.00	46.30	5.08	78.41	7.00	35.00	2.75	13.75	5.17	25.85
	Average	8.33	128.57	3.08	47.54	5.00	77.17	8.25	41.25	3.92	19.60	6.26	31.30
	4½ years:												
84	Shoulder, 17 months	7.00	108.04	3.00	46.30	4.86	75.01	8.25	41.25	4.00	20.00	6.12	30.60
	Shoulder	6.50	100.32	3.25	50.16	4.65	71.77	5.00	25.00	1.25	6.25	2.74	13.70
	Side	7.50	115.76	2.75	42.44	4.42	68.22	6.25	31.25	1.00	5.00	3.07	15.35
	Hip	8.25	127.34	2.25	34.73	4.82	74.39	5.25	26.25	1.00	5.00	2.38	11.90
	Average	7.31	112.83	2.81	43.37	4.69	72.39	6.19	30.95	1.81	9.05	3.33	17.90
	5 years:												
82	Shoulder	5.25	81.03	1.98	30.87	3.48	54.71	8.50	42.50	3.50	17.50	6.68	33.45
	Side	7.50	115.76	3.00	46.30	4.53	69.92	9.00	45.00	3.00	15.00	6.90	34.50
	Hip	11.00	169.78	2.50	38.59	4.92	75.94	7.00	35.00	1.00	5.00	4.27	21.35
85	Neck, top of wrinkle	20.00	308.69	8.00	123.48	13.31	205.43	8.00	40.00	4.00	20.00	6.01	30.05
	Shoulder, between wrinkle	9.00	138.91	3.25	50.16	5.56	85.82	8.25	41.25	3.00	15.00	5.58	27.90
	Side	9.00	138.91	3.00	46.30	5.96	91.99	8.00	40.00	2.00	10.00	5.19	25.94
	Hip, top of wrinkle	12.50	192.93	3.75	57.88	7.77	119.93	8.50	42.50	2.00	10.00	5.13	25.65
	Hip, between wrinkle	12.50	192.93	3.50	54.02	7.32	112.98	8.75	43.75	2.50	12.50	5.42	27.10
	Average	10.84	167.31	3.63	56.03	6.61	102.02	8.25	41.25	2.83	13.15	5.65	28.26

TABLE XX.—*General extremes and averages, showing influence of age upon strain and stretch.*

	STRAIN.						STRETCH.					
	Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
COTSWOLD.												
Ram.												
	grams.	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per. ct.*	*mm.*	*per. ct.*	*mm.*	*per. ct.*
Lamb	32.00	493.91	12.00	185.22	20.98	328.82	9.38	46.90	1.00	5.00	5.41	27.05
6 months	36.25	559.50	14.92	230.28	25.94	400.37	9.42	47.10	1.58	7.90	6.48	32.40
1 year	47.50	733.14	19.05	294.03	31.82	491.13	11.15	55.75	2.35	11.75	7.11	35.55
2 years	46.00	709.99	15.25	235.38	32.08	495.14	19.75	98.75	1.42	7.10	9.94	49.70
Ewe.												
Lamb	36.00	555.65	12.42	191.70	24.07	371.51	9.50	47.50	1.08	5.40	6.53	32.65
6 months	43.00	663.69	14.63	228.89	29.64	457.48	9.08	45.40	1.83	9.15	5.91	29.55
1 year	45.40	700.73	18.50	285.54	33.04	509.96	8.75	43.75	3.60	18.00	7.10	35.50
2 years	44.29	683.60	14.00	216.08	30.01	463.19	11.38	56.90	1.25	6.25	7.20	36.00
LINCOLN.												
Ram.												
Lamb	27.50	424.45	11.50	177.50	17.72	273.50	8.00	40.00	0.75	3.75	4.69	23.35
1 year	33.00	509.34	11.25	173.64	22.75	351.14	9.50	47.50	1.00	5.00	6.63	33.15
2 years	30.00	463.04	7.00	108.04	20.62	318.26	8.75	43.75	1.25	6.25	6.16	30.80
5½ years	39.00	601.95	16.67	257.30	28.23	435.72	8.58	42.90	4.67	23.35	7.22	36.10
Ewe.												
Lamb	33.75	520.92	18.06	278.75	25.60	395.13	10.00	50.00	4.88	24.40	7.72	38.60
2 years	41.65	642.85	17.50	270.11	27.53	424.91	9.90	49.50	4.10	20.50	7.22	36.10
SOUTHDOWN.												
Ram.												
Lamb	20.67	319.03	3.67	56.65	9.77	150.80	6.42	32.10	0.83	4.17	3.31	16.55
1 year	22.75	351.14	4.67	72.08	12.75	196.79	8.17	40.85	0.75	3.75	4.03	20.15
2 years	18.06	278.75	7.13	110.05	11.87	183.21	7.78	38.90	2.19	10.95	4.72	23.60
3 years	28.00	432.17	2.50	38.59	10.92	168.55	8.25	41.25	0.25	1.25	3.63	18.15
4 years	18.50	285.54	3.00	46.30	12.73	196.48	8.00	40.00	0.50	2.50	4.34	21.70
Ewe.												
6 months	16.33	252.05	5.92	91.37	10.93	168.70	6.58	32.90	1.75	8.75	4.68	23.40
1 year	23.38	360.86	8.23	127.03	14.53	224.26	7.98	39.90	2.48	12.40	5.39	26.95
2 years	21.33	329.22	6.25	96.47	12.79	197.40	7.92	39.60	1.33	6.65	4.16	20.80
3 years	21.33	329.22	7.92	122.24	13.73	211.92	8.00	40.00	1.75	8.75	4.80	24.00
OXFORD.												
Ram.												
1 year	36.25	559.51	14.25	219.94	24.09	371.82	9.25	46.25	3.42	17.10	6.75	33.75
2 years	40.33	622.48	17.08	263.62	25.89	399.60	8.92	44.60	3.42	17.10	6.55	32.75
Ewe.												
1 year	48.33	745.95	19.67	303.60	32.00	493.91	9.25	46.85	2.30	11.50	6.26	31.30
MERINO.												
Ram.												
Lamb	10.31	159.13	4.63	71.46	6.70	103.41	7.75	38.75	2.87	14.35	5.36	26.80
5 months	11.08	171.02	4.58	70.69	6.63	102.33	7.67	38.35	2.92	14.60	5.00	25.30
1 year	14.50	223.80	3.95	60.97	7.09	109.43	8.06	40.30	2.09	10.45	4.99	24.95
2 years	14.00	216.08	4.49	69.30	8.19	126.41	8.20	41.00	2.24	11.20	5.29	26.45
3 years	13.40	206.82	3.60	55.56	7.13	110.05	7.90	39.50	1.88	9.40	4.61	23.05
4 years	14.54	224.42	4.29	66.21	7.96	122.86	7.82	39.10	2.25	11.25	5.13	25.65
6 years	11.85	182.90	3.50	54.02	6.39	98.63	8.35	41.75	2.30	11.50	5.63	28.15
7 years	9.92	153.11	3.83	59.11	5.97	92.14	7.33	36.65	1.75	8.75	4.31	21.55
Ewe.												
5 months	11.83	182.59	4.17	64.36	6.47	99.86	4.92	30.60	3.83	10.15	5.72	28.60
5½ months	16.13	248.96	4.88	75.32	9.24	142.62	8.19	40.95	2.31	11.55	5.37	26.85
1 year	13.23	204.20	4.31	66.52	7.59	117.15	7.83	39.15	2.58	12.90	5.14	25.70
2 years	11.31	174.57	3.54	54.64	6.29	97.08	7.98	39.90	1.86	9.30	4.92	24.60
3 years	11.13	171.79	3.96	61.12	6.65	102.64	8.38	41.90	3.17	15.85	5.51	27.55
4 years	8.33	128.57	3.08	47.54	5.00	77.17	8.25	41.25	3.92	19.60	6.36	31.80
4½ years	7.31	112.83	2.81	43.37	4.69	72.39	6.19	30.95	1.81	9.05	3.58	17.90
5 years	10.84	167.31	3.63	56.03	6.61	102.02	8.25	41.25	2.63	13.15	5.65	28.25

TABLE XXI.—*Extremes and averages, showing influence of folds upon strain and stretch.*

Catalogue No. of samples.	Portion of fleece represented.	STRAIN.						STRETCH.					
		Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
	MERINO.	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*p. cent.*	*mm.*	*p. cent.*	*mm.*	*p. cent.*
30	Neck, top of wrinkle	22.00	308.69	3.00	138.91	13.61	240.07	8.25	41.25	2.50	12.50	5.43	27.15
45	....do	15.00	231.52	4.00	61.74	7.98	123.17	8.00	40.00	3.25	16.25	5.58	27.90
48	Shoulder, top of wrinkle	15.75	243.09	3.50	54.02	8.28	127.80	8.25	41.25	2.00	10.00	5.30	26.50
53	....do	25.00	385.86	6.50	100.32	10.54	162.68	7.50	37.50	3.25	16.25	5.45	27.25
	Hip, top of wrinkle	32.50	501.62	7.75	119.62	16.05	278.00	8.00	40.00	2.00	10.00	5.06	25.30
54	Shoulder, top of wrinkle	29.00	447.60	4.00	61.74	10.64	164.07	8.50	42.50	1.00	5.00	3.86	19.30
	....do	20.00	308.69	4.00	61.74	11.08	171.02	6.00	30.00	1.00	5.00	2.77	13.85
55	Shoulder, top of wrinkle	16.50	254.67	5.00	77.17	8.95	138.14	8.25	41.25	4.00	20.00	6.16	30.80
	Hip, top of wrinkle	11.50	177.50	2.00	30.87	5.74	88.59	8.50	42.50	1.00	5.00	3.97	19.85
56	Neck, top of wrinkle	20.00	308.69	8.00	123.48	13.31	205.43	8.00	40.00	4.00	20.00	6.01	30.05
	Hip, top of wrinkle	12.50	192.93	3.75	57.88	7.77	119.93	8.50	42.50	2.00	10.00	5.13	25.65
57	Shoulder, top of wrinkle	27.00	416.73	5.00	77.17	11.31	174.56	8.50	42.50	2.25	11.25	5.83	29.15
58	....do	10.50	162.06	3.25	50.16	6.18	95.39	7.50	37.50	1.50	7.50	4.67	23.35
	Hip, top of wrinkle	13.00	200.65	4.25	65.60	7.35	113.44	7.00	35.00	1.75	8.75	3.81	19.05
79	....do	10.75	165.92	5.25	81.03	7.72	119.15	7.00	35.00	3.00	15.00	4.67	23.35
349	Top of wrinkle	14.25	219.94	3.00	46.30	6.97	107.58	7.75	38.75	1.00	5.00	3.65	18.25
	Average	17.50	270.11	4.71	72.70	9.28	143.24	7.36	36.80	2.15	10.75	4.61	23.05
30	Neck, between wrinkle	12.25	189.07	6.50	100.33	9.18	141.69	8.75	43.75	3.25	16.25	5.48	27.40
45	....do	13.50	208.24	4.25	65.60	8.05	124.25	7.75	38.75	1.50	7.50	5.03	25.15
48	Shoulder, between wrinkle	13.25	204.51	4.00	61.74	7.83	120.78	8.27	41.25	2.75	13.75	6.35	31.75
53	....do	8.50	131.19	2.25	50.16	5.76	88.90	7.75	38.75	2.00	10.00	4.83	24.15
	Hip, between wrinkle	9.50	146.63	2.50	38.59	5.62	86.74	7.75	38.75	1.50	7.50	4.61	23.05
54	Shoulder, between wrinkle	7.50	115.76	2.75	42.44	5.28	81.49	8.00	40.00	1.75	8.75	5.10	25.50
	Hip, between wrinkle	10.00	154.35	3.50	54.02	5.92	91.37	6.00	30.00	1.50	7.50	3.67	18.35
55	Shoulder, between wrinkle	7.50	115.76	4.00	61.74	5.33	82.27	7.75	38.75	4.00	20.00	5.93	29.65
	Hip, between wrinkle	9.00	138.91	2.75	42.44	5.45	84.12	9.00	45.00	1.50	7.50	4.60	23.00
56	Shoulder, between wrinkle	9.00	138.91	3.25	50.16	5.56	85.82	8.25	41.25	3.00	15.00	5.58	27.90
	Hip, between wrinkle	12.50	192.93	3.50	54.02	7.32	112.98	8.75	43.75	2.50	12.50	5.42	27.10
57	Shoulder, between wrinkle	8.50	131.19	3.25	50.16	5.55	85.66	9.50	47.50	4.00	20.00	6.54	32.70
58	....do	9.25	143.77	3.00	46.30	5.68	87.68	8.00	40.00	1.25	6.25	5.26	26.30
	Hip, between wrinkle	10.75	165.92	3.00	46.30	5.78	89.21	6.50	32.50	2.00	10.00	3.86	19.30
79	....do	12.50	192.93	5.00	77.17	7.56	116.69	7.00	35.00	3.00	15.00	5.01	25.05
349	Between wrinkle	13.00	200.65	3.50	54.02	5.10	78.72	7.00	35.00	1.50	7.50	3.86	19.30
	Average	9.72	150.02	3.41	52.63	6.31	97.39	7.44	37.20	2.22	11.10	4.83	24.15

TABLE XXII.—*Individual extremes and averages, showing influence of folds upon strain and stretch in each sex and portion of fleece.*

Catalogue No. of samples.	Portion of fleece represented.	STRAIN.						STRETCH.					
		Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
	MERINO.												
	Ram.	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*p. cent.*	*mm.*	*p. cent.*	*mm.*	*p. cent.*
30	Neck, top of wrinkle	20.00	308.69	9.00	138.91	13.61	210.07	8.25	41.25	2.50	12.50	5.43	27.15
48	Shoulder, top of wrinkle	15.75	243.09	3.50	54.02	8.28	127.80	8.25	41.25	2.00	10.00	5.30	26.50
53	....do	25.00	385.86	6.50	100.32	10.54	162.68	7.50	37.50	3.25	16.25	5.45	27.25
54	....do	29.00	447.60	4.00	61.74	10.63	164.07	8.50	42.50	1.00	5.00	3.86	19.30
55	....do	16.50	254.67	5.00	77.17	8.95	138.14	8.25	41.25	4.00	20.00	6.16	30.80
	Average	21.56	332.77	4.75	73.31	9.60	148.17	8.13	40.65	2.56	12.80	5.19	25.95
53	Hip, top of wrinkle	32.50	501.62	7.75	119.62	18.05	278.59	8.00	40.00	2.00	10.00	5.06	25.30
54	....do	20.00	308.60	4.00	61.74	11.08	171.02	6.00	30.00	1.00	5.00	2.77	13.85
55	....do	11.50	177.50	2.00	30.87	5.74	88.59	8.50	42.50	1.00	5.00	3.97	19.85
79	....do	10.75	165.92	5.25	81.03	7.72	119.15	7.00	35.00	3.00	15.00	4.67	23.35
	Average	18.69	288.47	4.75	73.31	10.65	168.38	7.38	36.90	1.75	8.75	4.12	20.60
343	Top of wrinkle	14.25	219.94	3.00	46.30	6.97	107.58	7.75	38.75	1.00	5.00	3.65	18.25
	General average	19.51	301.13	5.00	77.17	10.15	156.66	7.80	39.00	2.08	10.40	4.63	23.15
30	Neck, between wrinkle	12.25	189.07	6.50	100.33	9.18	141.69	8.75	43.75	3.25	16.25	5.48	27.40
48	Shoulder, between wrinkle	13.25	204.51	4.00	61.74	7.83	120.78	8.25	41.25	2.75	13.75	6.35	31.75
53	....do	8.50	131.19	3.25	50.16	5.76	88.90	7.75	38.75	2.00	10.00	4.83	24.15
54	....do	7.50	115.76	2.75	42.44	5.28	81.49	8.00	40.00	1.75	8.75	5.10	25.50
55	....do	7.50	115.76	4.00	61.74	5.33	82.27	7.75	38.75	4.00	20.00	5.93	29.65
	Average	9.19	141.84	3.50	54.02	6.05	93.38	7.94	39.70	2.63	13.65	5.55	27.75
53	Hip, between wrinkle	9.50	146.63	2.50	38.59	5.62	86.74	7.75	38.75	1.50	7.50	4.61	23.05
54	....do	10.00	154.35	3.50	54.02	5.92	91.37	6.00	30.00	1.50	7.50	3.67	18.35
55	....do	9.00	138.91	2.75	42.44	5.45	84.12	9.00	45.00	1.50	7.50	4.60	23.00
79	....do	12.50	192.93	5.00	77.17	7.56	116.69	7.00	35.00	3.00	15.00	5.01	25.05
	Average	10.25	158.20	3.44	53.10	6.14	94.77	7.44	37.70	1.88	9.40	4.48	22.40
340	Between wrinkle	13.00	200.65	3.50	54.02	5.10	78.72	7.00	35.00	1.50	7.50	3.86	19.30
	General average	10.10	155.89	3.77	58.19	6.30	97.24	7.72	38.60	2.28	11.40	4.94	24.70
	Ewe.												
45	Neck, top of wrinkle	15.00	231.52	4.00	61.74	7.98	123.17	8.00	40.00	3.25	16.25	5.58	27.90
56	....do	20.00	308.69	8.00	123.48	13.31	205.43	8.00	40.00	4.00	20.00	6.01	30.05
	Average	17.50	270.11	6.00	92.61	10.65	164.38	8.00	40.00	3.63	18.15	5 80	29.00
57	Shoulder, top of wrinkle	27.00	416.73	5.00	77.17	11.31	174.56	8.50	42.50	2.25	11.25	5.83	29.15
58	....do	10.50	162.06	3.25	50.16	6.18	95.39	7.50	37.50	1.50	7.50	4.67	23.35
	Average	18.75	289.40	4.13	63.75	8.75	135.05	7.50	37.50	1.88	9.40	5.25	26.25
56	Hip, top of wrinkle	12.50	192.93	3.75	57.88	7.77	119.93	8.50	42.50	2.00	10.00	5.13	25.65
58	....do	13.00	200.65	4.25	65.60	7.35	113.44	7.00	35.00	1.75	8.75	3.81	19.05
	Average	12.75	196.79	4.00	61.74	7.56	116.69	7.75	38.75	1.88	9.40	4.47	22.35
45	Neck, between wrinkle	15.50	239.24	4.25	65.60	8.05	124.25	7.75	38.75	1.50	7.50	5.03	25.15
56	Shoulder, between wrinkle	9.00	138.91	3.25	50.16	5.56	85.82	8.25	41.25	3.00	15.00	5.58	27.90
57	....do	8.50	131.19	3.25	50.16	5.55	85.66	9.50	47.50	4.00	20.00	6.54	32.70
58	....do	9.25	142.77	3.00	46.30	5.68	87.68	8.00	40.00	1.25	6.25	5.26	26.30
	Average	8.92	137.68	3.17	48.93	5.59	86.28	8.58	42.90	2.75	13.75	5.79	28.95
56	Hip, between wrinkle	12.50	192.93	3.50	54.02	7.32	112.98	8.75	43.75	2.50	12.50	5.42	27.10
58	....do	10.75	165.92	3.00	46.30	5.78	89.21	6.50	32.50	2.00	10.00	3.86	19.30
	Average	11.63	179.51	3.25	50.16	6.55	101.09	7.63	38.15	2.25	11.25	4.64	23.20

TABLE XXIII.—*General extremes and averages, showing influence of folds upon strain and stretch.*

Portion of fleece represented.	STRAIN.						STRETCH.					
	Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
MERINO.												
Top of wrinkle:	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*p. cent.*	*mm.*	*p. cent.*	*mm.*	*p. cent.*
Whole fleece	17.50	270.11	4.71	72.70	9.28	143.24	7.36	36.80	2.15	10.75	4.61	23.05
Between wrinkle:												
Whole fleece	9.72	150.02	3.41	52.63	6.31	97.39	7.44	37.20	2.22	11.10	4.83	24.15
Ram.												
Top of wrinkle:												
Whole fleece	19.51	301.13	5.00	77.17	10.15	[illegible]	7.80	39.00	2.08	10.40	[illegible]	23.15
Neck	[illegible]	308.69	9.00	138.91	13.61	[illegible]	8.25	41.25	2.50	12.50	5.43	27.15
Shoulder	21.56	332.77	4.75	73.31	9.60	148.17	8.13	40.65	2.56	12.80	[illegible]	25.95
Hip	18.69	228.47	4.75	73.31	10.65	162.38	7.38	36.10	1.75	[illegible]	4.12	20.60
Between wrinkle:												
Whole fleece	10.10	155.89	3.77	58.19	6.30	97.24	7.72	38.60	2.28	11.40	4.94	24.70
Neck	12.25	189.07	6.50	100.33	9.18	141.69	8.75	43.75	3.25	16.25	5.48	27.40
Shoulder	9.19	141.84	3.50	[illegible]	6.05	[illegible]	7.94	39.70	2.63	13.65	5.55	27.75
Hip	10.25	158.20	3.44	53.10	6.14	94.77	7.44	37.70	[illegible]	9.40	4.48	22.40
Ewe.												
Top of wrinkle:												
Whole fleece	16.33	252.05	4.71	72.70	8.98	138.60	7.92	39.60	2.46	12.30	5.17	[illegible]
Neck	17.50	270.11	6.00	92.61	10.65	[illegible]	8.00	40.00	3.63	18.15	5.80	29.00
Shoulder	18.75	289.40	4.13	63.75	8.75	135.05	7.50	37.50	[illegible]	9.40	5.25	26.25
Hip	12.75	196.79	4.00	61.74	7.56	116.69	7.75	38.75	1.88	9.40	4.47	22.35
Between wrinkle:												
Whole fleece	10.92	168.55	3.38	52.17	6.32	97.55	[illegible]	40.65	2.38	11.90	5.28	26.40
Neck	15.50	239.24	4.25	65.60	[illegible]	124.25	7.75	38.75	1.50	7.50	[illegible]	25.15
Shoulder	8.92	137.68	3.17	48.93	5.59	86.28	[illegible]	42.90	2.75	13.75	5.79	28.95
Hip	11.63	179.51	3.25	50.16	6.55	101.09	7.63	38.15	2.25	11.25	4.64	23.20

TABLE XXIV.—*General averages of all measurements for each breed, sex, and portion of fleece.*

Portion of fleece represented.	Number of samples tested.	Number of crimps per inch.	Length.	Fineness.		Strain.		Stretch.		Strain, in grams, with same stretch and diameter reduced to 4 centimillimeters.
			Inches.	Centimillimeters.	Thousandths of inch.	Grams.	Grains.	Millimeters.	Per cent.	
Name of breed:										
Cotswold			5.156	4.196	1.6519	30.44	469.83	7.09	35.45	27.663
Leicester			9.75	3.879	1.5271	23.70	365.80	5.61	28.05	25.201
Lincoln			3.785	3.707	1.4594	25.66	396.05	7.07	35.35	29.876
Southdown		12.053	1.351	2.936	1.1559	12.78	197.25	4.59	22.95	23.721
Hampshire			2.188	3.298	1.2984					
Oxford			2.647	4.365	1.7185	30.43	469.67	6.61	33.05	25.554
Merino, general		19.555	1.502	2.131	0.8389	7.35	113.44	5.74	28.70	25.908
COTSWOLD.										
Ram.										
Whole fleece	44		5.155	4.227	1.6641	30.69	473.69	7.33	36.67	27.482
Shoulder	11		5.307	4.103	1.6153	27.80	429.08	6.58	32.90	[illegible]
Side	11		5.671	4.256	1.6755	33.34	514.59	6.53	32.65	29.450
Hip	11		5.386	4.415	1.7381	38.63	526.24	7.76	38.80	31.709
Belly	11		3.789	4.112	1.6188					
Ewe.										
Whole fleece	55		5.016	4.252	1.6740	31.00	478.47	6.95	34.75	27.434
Shoulder	14		5.223	4.092	1.6110	32.16	496.38	6.78	33.90	30.730
Side	14		5.482	4.225	1.6633	34.08	526.01	6.75	33.75	30.547
Hip	14		5.518	4.626	1.8212	36.83	568.46	7.63	38.15	27.537
Belly	13		3.750	4.054	1.5960					
LINCOLN.										
Ram.										
Whole fleece	15		3.258	3.671	1.4452	24.30	375.06	6.52	32.60	28.917
Shoulder	[illegible]		3.625	3.686	1.4511	26.80	414.73	6.98	34.90	31.561
Side	4		3.531	3.603	1.4185	23.42	361.48	7.25	37.60	28.865
Hip	[illegible]		3.469	4.017	1.5814	34.40	530.95	7.16	35.80	34.110
Belly	3		2.125	3.277	1.2901					
Ewe.										
Whole fleece	[illegible]		3.969	3.774	1.4858	26.56	409.94	7.44	37.20	29.836
Shoulder	5		4.350	3.848	1.5149	23.82	367.65	7.40	37.00	25.739
Side	5		4.700	3.809	1.4996	31.66	488.66	8.29	41.45	34.915
Hip	[illegible]		4.275	3.904	1.5370	32.35	499.31	7.82	39.10	33.960
Belly	5		2.550	3.531	1.3901					
SOUTHDOWN.										
Ram.										
Whole fleece	13		1.411	2.940	1.1574	11.56	178.42	4.07	20.35	21.399
Shoulder	1	12	1.375	3.063	1.2059	12.46	192.31	3.06	15.30	21.249
Side	1	12	1.500	3.274	1.2889	11.60	179.04	6.05	30.25	17.315
Hip	1		1.00	3.186	1.2543	13.41	206.98	6.33	31.65	21.138
Belly	1			3.024	1.1905					
Ewe.										
Whole fleece	33		1.328	2.904	1.1433	13.45	207.60	4.88	24.40	25.518
Shoulder	6	13	1.344	2.988	1.1763	12.51	193.09	5.21	26.05	22.419
Side	6	14	1.150	2.872	1.1307	12.38	191.08	5.73	28.65	23.468
Hip	6	12	1.562	3.151	1.2405	16.88	260.54	4.54	22.70	27.202
Belly	6	14	0.9875	2.845	1.1200					
OXFORD.										
Ram.										
Whole fleece	[illegible]		2.604	4.269	1.6807	29.90	461.49	6.82	34.10	26.251
Shoulder	3		2.208	4.132	1.6267	30.28	467.36	6.13	30.65	28.376
Side	3		2.792	4.353	1.7137	28.69	442.82	7.87	39.35	24.227
Hip	3		2.750	4.226	1.6637	30.73	474.31	6.16	30.80	27.532
Belly	3		2.916	4.718	1.8574					
Ewe.										
Whole fleece	10		2.725	4.241	1.6699	32.00	493.91	6.26	31.30	28.466
Shoulder	1		3.00	4.542	1.7881	31.94	492.98	5.22	26.10	24.772
Side	1		2.50	4.363	1.7177	30.99	478.32	7.46	37.30	26.048
Hip	1		2.75	5.038	1.9834	33.08	510.58	6.11	30.55	20.853
Belly	1		1.75	4.24	1.6692					
MERINO.										
Ram.										
Whole fleece	[illegible]	18.786	1.424	2.215	0.8720	7.12	109.89	5.07	25.35	23.219
Neck	2	16	1.4375	2.644	1.0409					
Shoulder	22	18.90	1.338	2.171	0.8547	6.73	103.88	5.37	26.85	22.848
Side	16	19.625	1.281	2.156	0.8488	6.29	97.08	5.83	29.15	21.651
Hip	22	16.952	1.276	2.297	0.9043	8.83	136.29	4.35	21.75	26.777
Belly	18	19.294	1.284	2.234	0.8795					

TABLE XXIV.—*General averages of all measurements for each breed, sex, and portion of fleece*—Continued.

Portion of fleece represented.	Number of samples tested.	Number of crimps per inch.	Length.	Fineness.		Strain.		Stretch.		Strain, in grams, with same stretch and diameter reduced to 4 centimillimeters.
			Inches.	Centimillimeters.	Thousandths of inch.	Grams.	Grains.	Millimeters.	Per cent.	
MERINO—continued.										
Ram—Continued.										
Top of wrinkle:										
Whole fleece		14.857	1.1250	2.556	[illegible]	9.77	150.81	4.54	22.70	23.927
Neck		16	1.25	2.822	1.1110					
Shoulder		14.667	1.109	2.371	0.9334	[illegible]	148.17	5.19	25.95	27.322
Hip		14.667	1.109	2.611	1.0279	10.65	168.38	4.12	20.60	24.995
Between wrinkle:										
Whole fleece		[illegible]	1.181	2.137	0.8413	5.98	92.30	4.86	24.40	20.951
Neck		16	1.625	2.466	0.9708					
Shoulder		18.667	[illegible]	2.042	0.8039	6.05	93.38	5.55	[illegible]	24.310
Hip		16.50	1.094	2.125	0.8366	6.14	[illegible]	4.48	22.40	21.756
Ewe.										
Whole fleece	100	19.828	1.491	2.084	0.8204	6.42	99.09	5.21	26.05	23.652
Neck	4	[illegible]	1.3125	2.287	0.9003	8.59	132.58	5.23	26.15	26.360
Shoulder	21	19.80	1.393	2.041	0.8035	6.16	99.08	5.44	27.20	23.660
Side	18	20	1.308	[illegible]	0.8086	5.78	89.21	6.16	30.80	21.929
Hip	22	17	1.219	2.206	0.8684	7.92	122.24	4.47	22.35	26.035
Belly	[illegible]	19.474	1.306	2.160	0.8503					
Top of wrinkle:										
Whole fleece		16	1.0625	2.402	0.9456	8.98	138.60	5.17	25.85	24.903
Neck		16	1.1875	2.295	0.9429	10.65	164.38	5.80	29.00	29.797
Shoulder		16	1.00	2.311	0.9098	8.75	135.05	5.25	26.25	26.214
Hip		16	1.00	2.499	0.9838	7.56	116.69	4.47	22.35	19.369
Between wrinkle:										
Whole fleece		19.333	1.073	2.137	0.8413	6.32	97.55	5.28	26.40	[illegible]
Neck		16	1.125	2.271	0.8942	8.05	124.25	5.03	25.15	17.538
Shoulder		20	1.146	2.064	0.8125	5.59	[illegible]	5.79	28.95	20.995
Hip		20	0.9375	2.171	0.8547	[illegible]	101.09	4.64	23.20	22.240
CROSS BREEDS.										
Cotswold and Leicester			11.50	3.370	1.3267	22.74	[illegible]	6.92	[illegible]	32.037
Cotswold and Southdown			2.625	2.952	1.1622	11.78	[illegible]	3.44	17.20	21.630
One-half Cotswold, one-half Merino			4.750	2.336	[illegible]	7.48	115.45	5.41	27.05	21.982
Do			3.000	1.708	0.6724	3.20	[illegible]	5.30	26.50	17.551
Cotswold and Merino			3.250	2.089	0.8224	6.69	103.26	5.05	25.25	24.532
Do			2.750	[illegible]	0.9177	5.97	92.15	4.82	24.10	17.580
Cotswold and Australian Merino			3.250	1.813	0.7137	3.74	57.73	5.09	25.45	18.205
Seven-eighths Leicester, one-eighth Merino			4.6250	[illegible]	1.0346	7.88	[illegible]	3.22	26.10	18.241
Seven-eighths Spanish, one-eighth Aust. Merino			3.3750	2.101	0.8271	3.58	55.26	5.45	22.25	12.976

TABLE XXV.—*General averages of all measurements, showing influence of age upon all qualities.*

Portion of fleece represented.	Number of samples tested.	Number of crimps per inch.	Length.	Fineness.		Strain.		Stretch.		Strain, in grams, with same stretch and diameter reduced to 4 centimillimeters.
			Inches.	Centimillimeters.	Thousandths of inch.	Grams.	Grains.	Millimeters.	Per cent.	
COTSWOLD.										
Ram.										
Lamb	8		6.125	3.726	1.4669	20.98	323.82	5.41	27.05	24.179
6 months	1		7.25	4.171	1.6421	25.94	400.37	6.48	32.40	23.857
1 year	12		5.073	4.268	1.6803	31.82	491.13	7.11	35.55	27.949
2 years	12		4.458	4.461	1.7562	32.08	495.14	9.94	49.70	25.792
Ewe.										
Lamb	12		7.375	3.982	1.5677	24.07	371.51	6.53	32.65	24.288
6 months	1		8.500	4.465	1.7578	29.64	457.48	5.91	29.55	23.788
1 year	12		3.958	4.054	1.5960	33.04	509.46	7.10	35.50	32.165
2 years	23		3.853	4.290	1.6889	30.01	463.19	7.20	36.00	26.090
LINCOLN.										
Ram.										
Lamb	4		4.813	3.194	1.2574	17.72	273.50	4.67	23.35	27.792
1 year	1		2.563	3.649	1.4366	22.75	351.14	6.63	33.15	27.338
2 years	4		2.406	3.736	1.4708	20.62	318.26	6.16	30.80	23.638
5½ years	3		3.25	4.346	1.7110	28.23	435.72	7.22	36.10	23.915
Ewe.										
Lamb	8		5.750	3.610	1.4212	25.60	395.13	7.72	38.60	[illegible]
2 years	12		2.779	3.883	1.5287	27.53	424.91	7.22	36.10	29.214
SOUTHDOWN.										
Ram.										
Lamb	8		1.6458	2.591	1.0200	9.77	150.80	3.31	16.55	23.285
1 year	8		1.292	2.967	1.6810	12.75	196.79	4.03	20.15	23.174
2 years	1	12	1.344	3.098	1.2196	11.87	183.21	4.72	23.60	19.790
3 years	1		1.125	2.815	1.1082	10.92	168.55	3.63	18.63	22.050
4 years	1		1.625	3.233	1.2728	12.73	196.48	4.34	21.70	19.486
Ewe.										
Lamb	3		1.75	2.747	1.0815					
6 months	4	13.333	1.5625	2.644	1.0409	10.93	168.70	4.68	23.40	25.046
1 year	15	13.714	1.269	3.020	1.1889	14.53	224.26	5.39	26.95	25.400
2 years	7	12.667	1.214	2.993	1.1783	12.79	197.40	4.16	20.81	22.844
3 years	4	12.50	1.104	2.947	1.1602	13.73	211.92	4.80	24.00	25.299
OXFORD.										
Ram.										
Lamb	1		3.00	3.356	1.3212					
1 year	7		2.928	3.958	1.5582	24.09	371.82	6.75	33.75	24.604
2 years	5		1.975	4.459	1.7555	25.89	399.60	6.55	32.75	20.834
6 years	1		2.00	3.923	1.5444					
Ewe.										
Lamb	1		3.50	3.452	1.3590					
1 year	7		2.607	4.379	1.7240	32.00	493.91	6.26	31.30	26.700
2 years	2		2.75	4.153	1.6350					
MERINO.										
Ram.										
Lamb	5	18	1.425	2.242	0.8826	6.70	103.41	5.36	26.80	21.329
5 months	4	19	1.3125	2.203	0.8673	6.63	102.33	5.06	25.30	21.858
1 year	14	19	1.616	2.182	0.8590	7.09	109.43	4.99	24.95	23.825
2 years	25	17.833	1.38	2.206	0.8685	7.55	116.84	5.20	26.00	24.823
3 years	12	17.556	1.24	2.235	0.8799	7.13	110.05	4.61	23.05	[illegible]
4 years	9	19.56	1.75	2.229	0.8775	7.96	122.86	5.13	25.65	25.634
6 years	6	21	1.477	2.240	0.8818	6.39	98.63	5.63	28.15	20.376
7 years	4	20	1.172	2.261	0.8901	5.97	92.14	4.31	21.55	18.685
Ewe.										
5 months	4	20	1.25	2.003	0.7885	6.47	98.86	5.72	28.60	25.804
5½ months	5	16	1.20	2.367	0.9318	9.24	142.62	5.37	26.85	26.387
1 year	26	17.923	1.529	2.214	0.8716	7.59	117.15	5.14	25.70	24.775
2 years	29	19.929	1.582	2.061	0.8114	6.29	97.08	4.92	24.60	23.693
3 years	8	18	1.3750	2.117	0.8334	6.65	102.64	5.51	27.55	23.741
4 years	4	21	1.469	1.882	0.7409	5.00	77.17	6.36	31.80	22.586
4½ years	4	21.50	1.625	2.040	0.8031	4.69	72.39	3.58	17.90	[illegible]
5 years	10	19.60	1.219	2.045	0.8051	6.61	102.02	5.65	28.25	25.290

TABLE XXVI.—*General averages of all measurements taken with pure-blood wools, showing influence of crimp upon all qualities.*

Portion of fleece represented.	Number of samples tested.	Number of crimps per inch.	Length in crimp.	Fineness.		Strain.		Stretch.	
			Inches.	Centimillimeters.	Thousandths of inch.	Grams.	Grains.	Millimeters.	Per cent.
SOUTHDOWN.									
Ram.									
Whole fleece	.....	11	1.4375	3.220	1.2712	12.03	185.68	4.56	22.80
Shoulder	1	12	1.3750	3.063	1.2059	12.46	192.41	3.06	15.30
Side	1	12	1.50	3.274	1.2889	11.60	179.04	6.05	30.25
Hip	.....	.....	1.00	3.186	1.2543	13.41	206.98	6.33	31.65
Belly	.....	.....	.....	3.024	1.1905	.....	.....	.....	.....
Ewe.									
Whole fleece	.....	12	1.4172	3.072	1.2034	14.98	231.21	4.51	22.55
Shoulder	3	12	1.3542	3.246	1.2779	12.88	198.80	4.96	24.80
Hip	4	12	1.4531	2.892	1.1385	16.56	255.60	4.17	20.85
Belly	1	12	.....	2.788	1.0976	.....	.....	.....	.....
Whole fleece	.....	14	1.062	2.793	1.0996	11.93	184.91	5.62	28.10
Shoulder	3	14	1.330	2.727	1.0736	12.14	187.38	5.45	27.25
Side	4	14	1.1875	2.849	1.1216	11.86	183.06	5.76	28.80
Belly	1	14	0.8750	2.770	1.0905	.....	.....	.....	.....
Belly	1	16	0.8750	2.872	1.1307	.....	.....	.....	.....
MERINO.									
Ram.									
Whole fleece	.....	14	1.286	2.469	1.0429	9.57	147.71	4.68	23.40
Shoulder	.....	14	1.0313	2.487	0.9791	9.79	151.10	5.01	25.05
Hip	.....	14	1.297	2.436	0.9590	10.11	156.04	4.77	23.85
Whole fleece	.....	16	1.631	2.235	0.8799	9.11	140.61	5.04	25.20
Neck	.....	16	1.4875	2.644	1.0409	11.40	175.96	5.46	27.30
Shoulder	.....	16	1.342	2.309	0.9090	8.53	131.69	5.80	29.00
Side	.....	16	1.3438	2.178	0.8574	8.81	135.98	5.95	29.75
Hip	.....	16	1.3250	2.360	0.9291	8.89	137.21	4.55	22.75
Belly	.....	16	1.50	2.319	0.9129	.....	.....	.....	.....
Whole fleece	.....	20	1.413	2.168	0.8535	6.46	99.71	5.19	25.95
Shoulder	.....	20	1.393	2.124	0.8362	6.18	95.39	5.37	26.85
Side	.....	20	1.264	2.178	0.8574	6.27	96.78	5.79	28.95
Hip	.....	20	1.25	2.079	0.8185	7.68	118.54	4.21	21.05
Belly	.....	20	1.277	2.240	0.9448	.....	.....	.....	.....
Whole fleece	.....	22	1.4063	1.897	0.7307	3.89	60.04	6.04	30.20
Shoulder	.....	22	1.4375	1.896	0.7464	3.29	50.78	6.32	31.60
Side	.....	22	1.875	1.816	0.6149	4.48	69.14	5.75	28.75
	.....	25	1.8750	1.794	0.7062	3.96	61.12	5.57	27.85
	.....	28	2.0625	1.704	0.6708	2.48	38.28	5.60	28.00
Ewe.									
Hip	.....	12	1.0625	2.799	1.1019	12.46	192.16	4.21	21.05
Whole fleece	.....	14	1.6875	2.232	0.8787	.....	.....	.....	.....
Hip	.....	14	1.50	2.470	0.9724	12.35	190.62	5.65	28.25
Belly	.....	14	1.875	1.993	0.7846	.....	.....	.....	.....
Whole fleece	.....	16	1.518	2.256	0.8881	8.38	129.03	5.03	25.15
Neck	.....	16	1.3125	2.387	0.9003	8.50	132.58	5.23	26.15
Shoulder	.....	16	1.3438	2.328	0.9165	7.92	122.24	4.30	21.50
Side	.....	16	1.5417	2.175	0.8547	6.60	101.87	6.77	33.85
Hip	.....	16	1.3063	2.335	0.9192	9.23	142.46	4.61	23.05
Belly	.....	16	1.25	2.173	0.8555	.....	.....	.....	.....
Whole fleece	.....	20	1.433	2.105	0.8287	6.27	96.78	5.14	25.70
Shoulder	.....	20	1.269	2.127	0.8374	5.98	92.30	5.65	28.25
Side	.....	20	1.368	2.090	0.8263	6.18	95.39	6.09	30.45
Hip	.....	20	1.125	2.079	0.8185	6.81	105.11	4.25	21.25
Belly	.....	20	1.276	2.178	0.8574	.....	.....	.....	.....
Whole fleece	.....	22	1.539	2.049	0.8066	4.79	73.93	5.51	27.55
Shoulder	.....	22	1.719	1.993	0.8492	4.44	68.53	5.80	29.00
Side	.....	22	1.2813	1.920	0.7559	4.76	73.47	5.97	29.85
Hip	.....	22	1.292	2.043	0.8043	5.52	85.20	4.58	22.90
	.....	25	2.375	1.889	0.7444	4.62	71.73	5.39	26.95
	.....	30	1.625	1.571	0.6185	2.63	40.90	5.56	27.80

CHAPTER VI.

COMMERCIAL GRADES.

The above are the facts we have to present with regard to the pure bred wools as we have studied them, and we have now to pass to the consideration of the commercial grades of this and other countries for the raw material, for which we are, as already stated, indebted to Mr. J. D. Whitham, of Valley Grove, W. Va., and Mr. William G. Markham, of Avon, N. Y. These grades are those of the Boston and Philadelphia markets and the standards of Germany, respectively. The Boston grades were classified by Mr. H. E. Chapman, of Hartford, a professional grader, and the Philadelphia grades by Mr. Conant, of West Virginia, both at the request of Mr. Whitham. The German grades were selected by a professional grader of the highest authority in Germany, and they may therefore be accepted as fairly representing the grades of that country. But before proceeding to the discussion of the results obtained in the examination of this series of samples, a few words with regard to the several grades and the means by which they are determined and separated in a commercial way will not be amiss even from one not especially well versed in the art involved.

The commercial wool-grader, in the practice of his profession, depends altogether upon the senses of sight and feeling, guided by the demands of the market, and separates the different qualities of wool passing through his hands rather into the classes demanded for the supply of the factories and looms than into those based entirely upon any one of the qualities with which we have thus far had to deal. For while in Germany much depends upon the fineness of the staple, and as much importance is attached to this quality as any other, in this country all qualities must be considered to a greater or less degree. In what is known as the fine wools, or clothing wools, fineness is of course the prominent characteristic to be considered, while it is intimately connected with strength and elasticity as well. In the delaine wools fineness, strength, and elasticity must be considered, with proper length of fiber to produce the *tout ensemble* necessary to their important grade, while the coarse combing wools depend entirely upon length and freedom from impurities, with goodly amounts of strength and elasticity, which are desirable in all qualities.

But in no case has an absolute standard been established for each grade. If the demands of the market call for more of one grade than of another, the best of a lower or the poorest of a higher, as the case may be, will find its way in the grader's hands to the grade most in demand. Thus if XX or XXX be the prevailing demand of the market, we find the grader adding to these grades in his operations the lower sorts of picklock and the better sorts of X. If, on the other hand, delaine wool is most desired, most of the longer wool of the finer grades finds its way to the grade in question, while it receives also additions from the finer sorts of the long wools. So, too, when medium or coarse combing proves scarce in the markets, the delaines are drawn upon to supply the deficiencies, and thus the wide and elastic limits are maintained. But notwithstanding this, we have deemed it desirable to study the grades in the manner of our examination of the pure-bred wools, and we now have the pleasure of presenting the results obtained. Below we give a catalogue list of the samples included in this series of graded wools, and we have added to the list some notes taken at the time of grading from statements made by the grader.

BOSTON GRADES.

Graded by H. E. Chapman, Hartford, Conn.

Cat. No.

275. Fine unwashed, X, XX, and XXX.
276. Fine dead wool (from dead sheep).
277. Picklock.
278. XXX.
279. XX.
280. X.
274. Between X and No. 1.
281. No. 1.
282. No. 2.
283. Delaine, fine (from X to XX).
284. Delaine, medium (from No. 1 to No. 2).
285. Combing, fine (generally No. 1 long and strong).
286. Combing, medium.
287. Combing, coarse.
288. Common.
289. New Mexico wool.

PHILADELPHIA GRADES.

Prepared by Mr. Conant.

Cat. No.

290. Picklock, best.
291. Picklock, fair. Fair wool, but not high grade.
292. Picklock, medium. Generous grade, tending to the low side and much like XXX.
293. Picklock, low. Too growthy and long; like high XXX.
294. XXX series. This sample, probably grading wool, is very fine and elastic, and may be considered extra XXX.
5. XXX series. Very good XXX wool.
296. XXX series, low. Scarcely fine enough for XXX, and should probably fall to the XX grade.
297. XX series, good XX. This is a sample of excellent XX wool. It might be graded delaine in Boston, where the delaine is shorter than in Philadelphia.
298. XX series, clothing. In this grade the length is not considered; the qualities most desired are fineness, strength, elasticity, and liveliness or "quality".
299. XX series, low. The bodies of these fleeces run evenly to one sort. They are sometimes made No. 3. They are not so fine as other XX wools, but the wool is young and lively, and works well, and so is placed in this grade.
300. X. This is a sample of good X wool. It is fine enough for XX, but it is in some way defective. It is weak and works down in the factory.
301. X, fair. A sample of good, fair X wool.
302. X, low. Not quite good enough for delaine. It is long enough and fine enough, but is defective at the bottom; nor is it fine enough for XX.
303. Delaine, washed, fine. Regular grade.
304. Delaine, washed, fine. This sample is especially fine, though delaine fleeces are usually rather finer and heavier than clothing.
305. Fine unwashed X and above.
306. Fair unwashed X and above. Worth 25 to 26 cents per pound.

Cat. No.

307. X and above. Unmerchantable, because of containing too much grease, dirt, and cotts, and susceptible of excessive shrinkage; has been brook-washed, but not enough. The shrinkage in fine wools is about 40 to 50 per cent., and when it becomes greater than this the product becomes unmerchantable.
308. ¼-blood series. This sample is good quarter wool, because it is graded high. This grade may be divided, and part of it thrown to a higher grade and part of it to a lower.
309. ¼-blood series. For length should be classed as ¼ combing, but it is wanting in strength, is weak at the bottom, and is therefore classed as clothing.
310. Washed ¼ blood. Low combing. Longer and closer than combing, which must have a length of 3¼ to 3½ inches.
311. ⅜-blood series. Good.
312. ⅜-blood series, washed. A combing fleece, because good and strong and will lose little in noils.
313. Washed ⅜ and ¼ blood. Medium delaine. Has the same fineness as medium combing, but is shorter.
314. High ½-blood series. Classed thus because of the condition of the market.
315. Regular ½-blood. Same as Boston No. 1, or general medium. Thrown high; that is, the quality in this sample is placed in a high grade, because medium is scarce and other qualities are crowded into it. It is a real half-blood.
316. Combing. Washed half-blood. Combing fleeces, the best of them graded as fine delaine by some houses.
317. ⅝ series. In this series the ⅝, ½, and ⅜ blood wools are generally thrown together. It is produced by graded animals nearer to fine Merino than other grades, and is not low enough for medium.
318. Cotts. Wool generally of the coarser grades which from some cause has become matted or felted together so that it can be combed out and worked only with the greatest difficulty and loss.
319. Imported Saxony, wool used in Connecticut mills.
320. Saxony wool, grown in West Virginia.

GERMAN GRADES.

Furnished by Mr. William G. Markham, Avon, N. Y.

1. Superelecta.
2. Super-superelecta.
3. Superelecta.
4. Superelecta.
5. I. Electa.
6. I. Electa.
7. II. Electa.
8. II. Electa.
9. I. Prima.
10. I. Prima.
11. II. Prima.
12. II. Prima.
13. Secunda.
14. Tertia.
15. Quarta.
16. Wool of excellent pedigree.
17. Wool of excellent pedigree.
18. Pure-bred wool of ancient pedigree.
19. Wool not pure bred.
20. Wool from the first prize 2-year old French ram exhibited at the Paris Exposition of 1878; 1 year's growth.
21. Wool from Rambouillet Merino.
22. Merino wool from Sturgeon, Gray's Station, near London, England. Said to be from one of the purest flocks in the world, descended from the flock of George III, imported from Spain.
23. Australian ewe's wool, from flock of Sir Samuel Wilson, Australia.
24. Wool from M. Roger's 2-year old ram. Pulled at nine months' growth. Ram had been shorn once.
25. Wool from M. Roger's ewe, 2½ years' old. Rambouillet stock.
26. Wool from M. Roger's ewe, 2½ years old, of Rambouillet stock, but larger than the original.

This list will sufficiently explain and describe the samples represented in the tables following those just discussed. There are, however, a few other samples received from miscellaneous sources that have been examined, and the results of their examination are given in separate tables. They will be described when they are discussed. The notes accompanying the list of Philadelphia grades will explain, sufficiently for our present purpose, the principles involved in making them. So much depends upon practical experience in acquiring the knowledge necessary to making them, that a written description of the methods and principles which govern the work will be of little

general value. The object of the examination of these grades was to determine the limits between which lie the qualities found in each, and, if possible, furnish data from which some more definite standard could be established. The latter will, however, prove exceedingly difficult under any circumstances, for examination of the results of measurement of the German grades will show how widely the samples represented vary from the established standards, even when prepared by one long familiar with the grades and of large experience in their separation. After all, the demands of the market must be one of the most important factors in this determination, and these will be too flexible to conform to any rules which science may fix upon. But if the results here presented may tend in any way to effect any improvement in the uniformity in the product of the American looms, one of the great ends of this study will have been attained. But our results plainly show how difficult it is to establish a grade upon any given quality, since all the known qualities are involved in each case. Thus, the clothing wools may be wanting in length, but fineness, strength, and elasticity must be fully developed. In the delaines, length as well as all the other qualities must be included, while in the combing wools fineness is as a general rule the important quality, the long and coarse wools being those required. But the variations occurring in each grade in all these qualities become apparent in the tables giving the results of the measurements.

In the examinations, to provide for the variations here referred to, many of the samples in which any very considerable want of uniformity in quality occurred were divided into several smaller samples, and each quality contained in the grade was examined separately. Thus in Table XXVII, section A, giving the actual measurements of fineness at the several grades, we find at the head of the columns numbers 275*a*, 275*b*, 275*c*, &c., and each of these numbers refers to a distinct quality of wool found in the sample under examination, and differing from all the others in some peculiarity or another. The results of the examination of these subsamples serve to show the range that may be found in the qualities of each grade, and to determine the limits which should govern their range. What these specific limits are will be found in one of the later tables. In this table we have recorded, as before, all the measurements actually taken, and have collected at the bottom of each page the recapitulation and reductions necessary to the more ready and intelligent appreciation of the differences to be found in the figures corresponding to each sample or part of sample. The table will fully explain itself, and will serve for the determination of many of the relations that have escaped our notice or that from want of time or space we have thus far been unable to consider.

In the next section, B, we have presented in exactly the same way the actual measurements made of the grades of the Philadelphia markets. Here, because of the peculiarities of that market, we may expect to find wider variations than in the previous table. It is constructed in exactly the same manner as former tables of like character, and will therefore explain itself.

In section C we have the actual measurements of the length, crimp, and fineness of the commercial grades of Germany, the materials for which were furnished by Mr. Markham. Constructed in the same way as the others, it needs no further explanation than they. But there is one point of especial interest that we must call attention to in passing. It is well known that in Germany great dependence is placed upon the relation between the closeness of the crimp and the fineness of the fiber, and this relation is always largely employed in the determination of the grade. This is well illustrated in this table under numbers 1 to 15, inclusive. We find here a gradual decrease in the number of crimps per inch, and a corresponding increase in the diameter of the fiber. With the exception of the super-super electa we find this correspondence between the crimp and fineness comparatively close, and its reliability as a standard of grade in the finer wools well supported. In No. 1, the super-electa nomener, with 34 crimps per inch in both the samples, we have a variation of from about 1.4 to 1.9 centimillimeters. Here the indications of the crimp are wholly unreliable, and if we were to accept these figures as a general rule, we should conclude that in the finer qualities of wool this relation is wholly defective as a means for determination of the fineness, though for the wools of medium fineness it will prove of very considerable practical utility.

But there is also another relation here to which we think too much importance cannot be attached, and which should be studied with great care, with a view to the practical application of the facts set forth by all breeders of fine-wooled sheep, or growers of wools of the finer grades. We refer especially to the uniformity in the quality of the staple, not only from fiber to fiber, but throughout its length as well. It is difficult to find in any of the samples of American wool we have had occasion to examine the degree of uniformity in fineness here exhibited, both in the extremes of the whole sample or of each section, the averages for each section, or the number of measurements found above and below the average in each case. This is a point by all means too important to be neglected, and it will to a great extent explain the necessity that impels our manufacturers to send abroad for material to be employed in the manufacture of the finer goods and to consume the home product in the lower grades. There are doubtless in this country both breeders of sheep and growers of wool who aim at securing the high degree of uniformity here represented, but it is a lamentable fact that the wools of the United States must be acknowledged to be wanting in this important quality. This may be due in some cases to the influences to which our animals are naturally subjected by the sudden and radical climatic changes for which many parts of the country are celebrated, but it is more probable that it may in most cases be traced and referred to the want of that constant care and watchfulness that sheep on the European continent usually receive. The additional care required, and the possibly improved nutrition that may often be afforded, will no doubt eventually yield returns that could be nothing but gratifying

to the breeders and growers, and improve the relations prevailing between the producer and manufacturer as well. The sooner this fact is recognized the sooner will the discussions so disastrous to the prosperity of the woolen industry in all its branches decline, while the advancement in every direction must follow as a matter of course.

The data given here in detail will be presented in a more condensed form in a subsequent table, in which the facts we have alluded to become even more prominent.

Passing to the following tables, we have the extremes and averages of the preceding ones arranged and classified for more convenient comparison of the general relations. In the first table, XXVIII, we have the extremes and averages for all the portions of each sample represented, showing the wide variations in the quality of wool in each grade, wider as a rule in those of the Boston than in those of the Philadelphia markets. And, as compared with each other, we may plainly see here the greater uniformity in the quality of the foreign wools. We have already insisted upon these relations sufficiently, and we offer them again in this form.

In the next table, XXIX, the averages of the extremes and averages for the different parts of each sample are collected, and we have an opportunity for more absolute comparison of one grade with another. The fineness and length fairly show the qualities upon which the grades depend. In some cases the distinctions are too slight to be of value, and in such case we must look to strength or some other quality to effect the differentiation. But we may see in this table what we have pointed out before, the general relation of fineness to crimp, and at the same time its general unreliability.

We have now to consider the strength and elasticity of the wools constituting the several grades, the fineness of which we have just discussed. All the samples were divided in exactly the same way as for the measurements of fineness, that is to say, all the different qualities found in each sample were tested as nearly as it was possible to do so. Indeed the same small subspecimens that were used in the measurements of fineness were also employed in the tests of strength and stretch. In these tables they are therefore designated in the same way; for instance, the subspecimens of sample number 275, are designated by 275*a*, 275*b*, 275*c*, &c., respectively. The results of the actual measurements and the recapitulations and reductions are arranged here exactly as in previous tables of results of the same character, and they likewise serve to furnish the data for subsequent tables showing more clearly and in a more concise way the general relations to be brought out. The uniformity of the material tested may here be studied in detail, and from such studies we may learn lessons of much the same character and the same importance as those to which we have already called attention in the discussion of the fineness of these grades. The superiority of the European wool as regards uniformity is here equally prominent, and will appear still more distinctly in the tables of general averages to be given later on. We commend the study of these detailed results to the careful consideration of wool-growers and manufacturers alike, for they must prove to them a source of fruitful meditation.

The results of these measurements are detailed in Table XXX.

In Table XXXI we have collected all the extremes and averages of the preceding tables, to show at a glance the variations in strength and elasticity from sample to sample and from grade to grade. We see here how important it is that there should be more careful breeding on the one hand and more careful selections in grading on the other. But in this table, as in the preceding, we have given the averages for all the specimens tested. It still remains to determine from these figures the general averages for each sample, and the results of this determination are collected in Table XXXII, which should furnish fairly good standards for each grade. In both of these tables we have arranged the figures for strain on one side and the figures for stretch of the corresponding sample directly opposite on the other side. Beyond this these tables will explain themselves.

In conclusion, we present in Table XXXIII the general averages of all measurements made upon the samples of the commercial grades, so that each grade may be compared with any other in any particular or as a whole. This will show better than any previous combination of figures all the elements which enter into the determination of each grade, and what are the most important as guides in fixing the several classes. This table needs no further explanation. Each one must study it for himself, and each one find the practical application of the data it contains.

As the general result of the whole examination we arrive at the following conclusions:

1. That of the breeds represented in our investigation, as regards fineness of fiber, the Merino stands first and the Oxforddown last in the scale, and all in the following order: 1, Merino; 2, Southdown; 3, Hampshiredown; 4, Lincoln; 5, Leicester; 6, Cotswold; 7, Oxforddown.

2. That of the different parts of the fleece, as regards fineness, no absolute standards can be established, but as a general rule they are found to stand in about the following relation: 1, belly; 2, shoulder; 3, side; 4, hip.

3. That as regards the influence of sex upon the fineness of the fiber, no standard can be adopted. In some cases ram's wool is finer than ewe's wool; in others, the ewe's wool is finer. As a general rule the Lincoln and Cotswold breeds belong to the first class, and the Merinos and Downs to the second.

4. As regards the influence of age upon fineness no uniformity prevails, but it appears that with increase of age there is a certain increase of diameter of the fiber, and that this increase is more uniform in the coarse-wooled breeds than in the Merinos and Downs, and in the ram than in the ewe.

5. That wool produced upon the folds of the skin is always shorter and coarser than that grown between the folds or upon smooth skin, and that the folds of the hip produce coarser wool than those of other parts of the body.

6. That the fine wools having close crimp have as a rule a greater degree of fineness than those having more open crimp, and that fineness seems to vary with the closeness of the crimp. But the relation is by no means absolute, and must be accepted with some caution.

7. That as regards strength of the fiber, it is not wholly dependent upon the diameter of the cross section.

8. That stretch does not wholly depend upon the strain applied, nor upon the fineness of the fiber.

9. That the percentage of stretch may be accepted as fairly representative of the elasticity of the fiber.

10. As with the fineness, the relation between sex and strength and elasticity is not absolute, each breed having its own standard with this regard.

11. As regards strength of different portions of the fleece, we find a gradual increase from shoulder to hip, following the same order as for fineness, but as regards the stretch there is no regularity.

12. As regards the influence of age upon the strength and elasticity, a maximum appears to be reached at the age of about two years. Beyond this age the relation varies, and is not absolute.

13. That the wool from the tops of the wrinkles is stronger but less elastic than that from between the wrinkles or upon smooth skin.

14. That in the commercial grades of fine wool greater uniformity in all qualities prevails in those obtained from Germany than in those of the United States, but it must also be observed that the material representing the German grades was doubtless from thoroughbred stock, while that representing the American grades was taken from the ordinary market stock.

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades.*

A.—BOSTON GRADES.

Catalogue number of samples	274.			275*a*.			275*b*.			275*c*.			275*d*.			275*e*.		
Length of fiber in crimp	4⅝ inches.			2 inches.			2⅝ inches.			1¾ inches.			2¾ inches.			2¾ inches.		
Number of crimps per inch	20.			20.			20.			20.			20.			20.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters	1.25	3.50	1.625	1.25	2.00	1.50	3.50	2.75	2.75	2.375	2.00	2.50	2.50	2.00	2.00	2.50	2.00	2.50
	2.50	1.875	1.75	1.75	1.75	1.75	3.00	1.875	2.25	2.00	2.125	2.50	2.00	1.75	2.00	2.50	2.375	2.25
	2.125	2.	2.75	1.25	1.75	1.75	2.75	2.375	2.75	2.50	2.50	1.75	1.75	1.50	1.75	1.50	2.25	1.50
	1.75	2.25	2.25	1.875	2.00	2.25	2.50	2.75	2.50	2.25	2.125	2.00	1.375	2.50	1.75	2.125	2.75	2.25
	2.00	2.125	2.00	1.50	1.75	2.00	2.75	2.875	2.25	2.75	2.50	2.00	1.50	2.125	1.50	1.875	2.50	2.75
	2.125	1.75	2.50	1.50	1.75	1.50	3.50	3.00	1.75	2.875	2.25	2.75	1.50	1.75	1.50	2.50	2.50	4.00
	2.25	1.75	3.50	1.50	1.50	1.625	2.25	3.50	2.50	2.25	2.75	1.75	1.375	2.00	2.00	3.00	2.50	2.50
	2.50	1.625	5.00	1.25	1.625	2.00	2.50	1.875	2.50	2.00	2.00	2.50	1.625	2.25	1.75	2.125	2.75	2.375
	1.75	1.375	2.50	1.375	1.875	1.625	3.50	2.75	2.375	2.00	2.25	2.50	1.50	1.75	2.25	2.00	2.25	2.50
	1.625	1.50	3.50	1.50	1.625	1.75	2.50	3.00	1.750	2.125	2.50	2.50	1.50	2.00	1.875	2.00	2.50	2.125
	2.50	1.75	2.75	1.750	1.75	2.00	2.75	3.25	2.75	2.25	1.75	1.75	1.50	2.00	2.25	2.125	3.25	2.75
	1.625	1.875	2.50	1.750	1.75	1.875	2.50	2.50	2.50	2.25	2.125	2.75	1.625	2.125	2.00	2.00	2.25	2.25
	2.125	1.75	2.00	1.50	2.125	2.00	2.00	2.50	2.50	2.00	2.00	2.00	1.875	2.125	1.50	2.25	2.00	2.50
	2.5	2.00	2.50	1.50	1.875	2.00	2.375	2.00	2.00	2.25	2.25	3.00	1.50	2.00	2.375	2.25	2.50	2.25
	1.875	2.125	2.75	1.50	1.625	1.75	2.25	3.25	2.75	2.50	2.375	2.75	2.00	2.00	2.00	2.75	2.50	2.50
	1.75	2.125	3.00	1.125	1.75	2.00	3.375	2.00	2.00	2.50	2.125	2.50	1.875	2.50	1.75	2.00	2.25	2.00
	1.625	2.25	2.625	1.50	2.00	2.125	2.75	3.00	2.25	3.00	2.50	2.00	2.125	2.00	2.25	2.00	2.50	2.50
	2.125	1.75	2.875	1.50	1.50	1.875	2.25	2.25	2.375	2.50	2.25	2.50	1.875	1.875	1.75	1.375	3.00	2.00
	1.625	2.375	2.00	1.50	1.375	2.00	2.25	2.00	2.50	2.125	2.25	2.75	1.50	1.75	1.75	2.375	2.75	2.575
	2.125	2.125	2.75	1.75	2.125	2.00	2.25	1.75	3.00	2.50	2.00	2.50	1.50	1.75	2.00	2.25	2.25	2.25
	2.625	1.625	2.125	1.875	1.625	1.625	3.50	3.375	2.50	2.25	2.25	2.50	1.375	1.625	1.875	1.75	2.375	2.00
	1.875	1.875	2.50	1.50	1.75	2.00	2.75	2.25	2.50	2.50	2.75	2.25	1.75	2.00	1.50	3.00	2.25	2.00
	1.75	2.00	2.125	1.50	2.125	1.875	2.25	2.00	2.50	2.00	2.125	2.25	1.50	2.50	1.625	2.50	1.75	1.75
	2.25	1.625	1.875	1.25	1.75	2.125	2.375	2.25	3.25	2.25	2.00	2.50	1.625	2.00	2.00	3.00	2.375	3.00
	1.625	1.875	1.75	1.50	1.875	1.75	2.25	2.125	3.25	2.375	1.75	3.25	1.375	1.75	2.00	2.00	3.00	2.50
	2.00	1.625	2.25	1.50	2.25	1.75	2.00	2.00	2.25	2.50	2.00	2.50	1.625	2.50	1.50	2.50	1.75	2.75
	2.50	1.875	2.625	1.25	2.00	1.625	2.75	2.50	2.50	2.25	2.25	2.25	1.75	2.00	1.875	2.25	2.25	2.00
	1.875	2.125	4.50	1.125	1.75	2.00	2.75	2.50	2.25	2.50	2.50	2.50	1.625	2.00	1.875	2.00	2.00	1.625
	2.125	2.00	2.00	1.875	1.50	2.00	2.50	3.00	2.25	2.375	2.25	2.25	2.25	2.00	2.00	2.75	3.00	3.00
	2.00	2.00	1.875	1.50	1.875	1.75	2.375	2.50	2.75	2.00	2.625	2.50	1.75	1.75	2.00	1.75	2.00	2.125
Averages	2.013	1.950	2.392	1.500	1.800	1.863	2.633	2.525	2.467	2.500	2.238	2.400	1.688	1.996	1.875	2.233	2.412	2.363

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of sections.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements	B¹	2.625	1.0334	B¹	1.875	0.7380	B¹	3.50	1.3779	B¹	3.00	1.1811	B¹	2.50	0.9842	B¹	3.00	1.1811
	B²	3.50	1.3779	B²	2.25	0.8858	B²	3.50	1.3779	B²	2.75	1.0826	B²	2.50	0.9842	B²	3.25	1.2795
	B³	5.00	1.9685	B³	2.25	0.8858	B³	3.25	1.2795	B³	3.25	1.2795	B³	2.25	0.8858	B³	4.00	1.5748
Highest		5.00	1.9685		2.25	0.8858		3.50	1.3779		3.25	1.2795		2.50	0.9842		4.00	1.5748
Minimum measurements	B¹	1.25	0.4921	B¹	1.125	0.4429	B¹	2.00	0.7874	B¹	2.00	0.7874	B¹	1.375	0.5413	B¹	1.375	0.5413
	B²	1.50	0.5905	B²	1.375	0.5413	B²	1.75	0.6889	B²	1.75	0.6889	B²	1.50	0.5905	B²	1.75	0.6889
	B³	1.625	0.6397	B³	1.50	0.5905	B³	1.75	0.6889	B³	1.75	0.6889	B³	1.50	0.5905	B³	1.50	0.5905
Lowest		1.25	0.4921		1.125	0.4429		1.75	0.6889		1.75	0.6889		1.375	0.5413		1.375	0.5413
Average measurements	B¹	2.013	0.7925	B¹	1.500	0.5905	B¹	2.633	1.0366	B¹	2.500	0.9842	B¹	1.688	0.6645	B¹	2.233	0.8791
	B²	1.95	0.7677	B²	1.800	0.7086	B²	2.525	0.9940	B²	2.238	0.8811	B²	1.996	0.7858	B²	2.412	0.9496
	B³	2.392	0.9421	B³	1.863	0.7334	B³	2.467	0.9712	B³	2.400	0.9448	B³	1.875	0.7380	B³	2.363	0.9303
Average		2.118	0.8338		1.721	0.6775		2.542	1.0007		2.379	0.9366		1.853	0.7295		2.336	0.9196
Measurements above average		44			32			33			38			47			43	
Measurements below average		46			58			57			52			43			47	

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

A.—BOSTON GRADES.

	276.			277a.			277b.			277c.			278a.			278b.		
Catalogue number of samples																		
Length of fiber in crimp	2¼ inches.			1⅞ inches.			2 inches.			2⅛ inches.			2⅛ inches.			1⅞ inches.		
Number of crimps per inch	20.			22.			22.			22.			22.			22.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	1.25	2.00	2.00	1.50	2.00	1.50	1.50	1.75	2.00	1.00	1.75	1.25	1.25	1.25	1.25	1.125	1.50	1.50
	1.125	1.50	1.75	1.50	2.00	1.75	1.75	1.50	1.75	1.25	1.50	1.375	1.50	1.25	1.50	1.50	1.125	1.75
	1.50	2.25	1.50	1.75	1.75	1.75	1.25	1.50	2.00	1.25	1.25	1.625	1.50	1.75	1.75	1.125	2.00	1.50
	1.50	2.25	2.00	1.50	1.75	1.75	1.25	1.75	1.50	1.00	1.125	1.50	1.375	2.25	1.75	1.50	1.50	2.00
	1.50	2.00	1.75	1.50	2.00	1.75	1.50	2.00	1.25	1.00	1.50	1.375	1.50	1.25	1.75	1.25	1.75	1.50
	1.375	2.25	2.50	1.25	1.75	2.00	1.50	1.50	1.75	1.25	1.50	1.25	1.125	1.50	1.25	1.50	1.50	1.50
	1.50	2.75	1.75	1.75	1.75	1.75	1.25	1.50	1.50	1.25	1.50	1.50	1.50	1.50	1.25	1.00	1.75	1.875
	1.375	2.00	2.00	1.50	1.75	2.00	1.50	2.00	1.50	1.25	1.50	1.50	1.25	1.50	1.75	1.25	1.75	1.50
	1.25	2.50	2.50	1.75	1.50	1.50	1.25	1.75	1.50	1.25	1.125	1.50	1.25	1.50	1.75	1.50	1.75	1.75
	1.375	2.00	2.00	1.50	1.75	1.50	1.25	1.75	1.50	1.375	1.50	1.75	1.25	1.50	2.00	1.25	1.50	1.75
	1.375	2.00	2.50	1.75	1.50	1.50	1.50	1.75	1.50	1.00	1.50	1.50	1.50	1.50	1.50	1.75	1.25	1.75
	1.25	2.25	2.25	1.50	2.00	1.75	1.25	1.25	1.75	1.375	1.25	1.50	1.75	1.50	2.00	1.25	1.50	1.75
	1.25	2.00	2.50	1.50	2.00	1.50	1.25	1.50	1.50	1.25	1.50	1.75	1.00	1.25	2.00	1.25	1.75	1.75
	1.00	1.875	1.75	1.75	1.75	1.75	1.25	1.50	2.00	1.50	1.75	1.50	1.50	1.50	1.75	1.25	1.75	1.50
	1.50	2.00	2.25	1.25	1.75	2.00	1.25	1.00	1.75	1.25	1.25	2.00	1.50	1.50	1.75	1.25	1.50	1.75
	1.25	2.00	2.50	1.25	2.00	1.75	1.50	1.50	1.75	1.25	1.50	1.25	1.50	1.75	1.50	1.50	1.75	1.75
	1.625	2.125	2.50	1.75	1.75	1.75	1.50	1.00	1.50	1.25	1.50	1.50	1.00	1.50	1.50	1.25	1.75	1.75
	1.50	2.00	2.00	1.25	2.00	1.75	1.25	1.50	2.25	1.50	1.75	1.50	1.25	1.50	1.50	1.00	1.50	1.75
	1.00	2.25	2.00	1.50	1.50	1.375	1.25	1.50	2.00	1.50	1.50	1.50	1.25	1.25	1.75	1.25	1.25	1.75
	1.375	2.25	2.50	1.75	1.75	1.50	1.25	1.50	2.00	1.25	1.50	1.75	1.25	1.50	2.00	1.75	1.25	1.75
	1.125	2.25	1.50	1.50	2.00	1.25	1.25	1.25	1.75	1.25	1.50	1.50	1.25	2.00	1.25	1.25	1.50	1.25
	1.25	2.50	2.00	1.50	2.00	1.75	1.25	1.50	2.00	1.25	2.00	2.00	1.50	1.25	1.75	1.25	1.50	1.50
	1.25	2.00	1.50	1.25	1.25	1.50	1.25	1.50	1.50	1.25	1.50	1.75	1.375	1.50	1.75	1.25	1.50	1.75
	1.125	1.625	2.00	1.25	2.00	2.00	1.50	1.50	1.25	1.50	1.75	1.75	1.50	1.50	1.25	1.00	1.50	1.25
	1.125	1.875	1.75	1.25	1.50	1.25	1.25	1.25	1.50	1.25	1.75	1.75	1.50	1.75	1.50	1.375	1.75	1.50
	1.375	1.75	1.75	1.25	2.00	1.75	1.625	1.25	1.75	1.50	1.00	1.50	1.25	1.75	1.75	1.50	1.75	1.75
	1.50	2.50	2.25	1.50	1.75	1.50	1.25	1.25	1.50	1.50	1.375	1.375	1.375	1.25	2.00	1.25	1.75	1.75
	1.25	2.00	2.00	1.25	1.75	2.00	1.25	1.25	1.50	1.50	1.50	1.25	1.50	1.25	1.75	1.25	1.25	2.00
	1.50	1.625	2.00	1.50	1.75	2.00	1.00	2.00	1.50	1.00	1.50	1.25	1.50	1.50	2.00	1.25	1.75	1.50
	1.375	2.00	2.25	1.50	1.50	1.50	1.25	1.50	1.50	1.25	1.625	2.00	1.50	1.75	2.00	1.00	1.75	1.75
Averages	1.323	2.079	2.100	1.463	1.783	1.679	1.337	1.508	1.667	1.275	1.508	1.550	1.375	1.508	1.675	1.296	1.579	1.671

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	1.625	0.6397	B¹	1.75	0.6889	B¹	1.75	0.6889	B¹	1.50	0.5905	B¹	1.75	0.6889	B¹	1.75	0.6889
	B²	2.75	1.0826	B²	2.00	0.7874	B²	2.00	0.7874	B²	2.00	0.7874	B²	2.00	0.7874	B²	2.00	0.7874
	B³	3.00	1.1811	B³	2.00	0.7874	B³	2.00	0.7874	B³	2.00	0.7874	B³	2.00	0.7874	B³	2.25	0.8858
Highest		3.00	1.1811		2.00	0.7874		2.00	0.7874		2.00	0.7874		2.00	0.7874		2.25	0.8858
Minimum measurements.	B¹	1.00	0.3937	B¹	1.25	0.4921	B¹	1.00	0.3937	B¹	1.00	0.3937	B¹	1.00	0.3937	B¹	1.00	0.3937
	B²	1.50	0.5905	B²	1.25	0.4921	B²	1.00	0.3937	B²	1.00	0.3937	B²	1.25	0.4921	B²	1.125	0.4429
	B³	1.50	0.5905	B³	1.25	0.4921	B³	1.25	0.4921	B³	1.25	0.4921	B³	1.25	0.4921	B³	1.25	0.4921
Lowest		1.00	0.3937		1.25	0.4921		1.00	0.3937		1.00	0.3937		1.00	0.3937		1.00	0.3937
Average measurements.	B¹	1.323	0.5216	B¹	1.463	0.5878	B¹	1.337	0.5263	B¹	1.275	0.5019	B¹	1.375	0.5413	B¹	1.296	0.5192
	B²	2.079	0.8185	B²	1.783	0.7019	B²	1.508	0.5935	B²	1.508	0.5936	B²	1.508	0.5940	B²	1.579	0.6216
	B³	2.100	0.8267	B³	1.679	0.6610	B³	1.667	0.6562	B³	1.550	0.6102	B³	1.675	0.6594	B³	1.671	0.6578
Average		1.835	0.7224		1.648	0.6488		1.584	0.5921		1.444	0.5684		1.519	0.5980		1.515	0.5964
Measurements above average		47			49			24			52			27			35	
Measurements below average		43			41			63			38			63			55	

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

A.—BOSTON GRADES.

	279a.			279b.			279c.			279d.			280a.			280b.		
Catalogue number of samples																		
Length of fiber in crimp	2⅛ inches.			2⅛ inches.			2⅛ inches.			2¼ inches.			1¾ inches.			2 inches.		
Number of crimps per inch	20.			20.			20.			20.			20.			20.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	1.75	2.25	2.00	1.50	2.25	2.25	1.75	1.25	1.75	1.50	2.50	2.00	1.50	1.75	2.00	1.50	3.25	2.25
	1.75	1.75	2.00	1.50	2.125	2.00	1.25	2.25	1.75	1.25	1.75	1.75	2.00	2.00	2.00	1.75	2.00	2.50
	1.75	2.00	1.75	1.50	2.00	2.00	2.00	2.25	2.00	1.50	1.75	1.75	1.00	3.00	1.75	1.75	2.25	1.25
	1.75	2.00	2.25	1.50	1.875	2.125	1.50	1.75	1.25	1.50	2.25	1.75	1.75	1.75	2.75	1.25	2.00	2.00
	1.25	2.00	2.00	1.75	1.75	3.25	1.75	1.75	1.75	1.75	1.75	2.00	1.75	2.25	2.00	1.50	2.00	2.25
	1.25	1.75	2.00	1.75	2.00	1.75	1.50	2.25	2.00	1.75	2.00	1.75	1.50	2.00	2.50	1.50	1.50	2.25
	1.50	1.50	2.125	1.75	1.75	3.25	1.50	2.00	1.50	1.25	1.75	1.75	2.00	2.75	2.75	1.25	2.00	1.75
	1.75	1.625	1.75	2.00	1.75	1.75	1.25	1.75	2.00	1.25	1.75	2.00	1.50	3.00	2.25	1.50	2.25	1.75
	1.00	2.125	2.80	1.75	2.75	1.50	1.00	1.75	2.00	1.25	1.50	1.75	2.00	2.25	2.25	1.25	1.75	2.00
	1.25	1.75	2.00	1.625	2.50	2.00	1.00	2.00	1.50	1.75	2.50	2.00	2.00	3.00	2.50	1.25	2.00	1.50
	2.00	2.00	2.00	2.00	2.00	2.25	1.50	1.75	1.75	1.75	2.25	2.00	1.75	2.25	2.50	1.75	1.75	1.50
	1.50	2.00	2.25	2.25	2.00	2.75	1.25	1.25	1.50	1.75	2.25	3.00	1.00	2.50	2.25	1.50	2.50	2.00
	1.625	2.00	2.00	1.50	1.75	2.00	1.50	1.50	1.75	1.50	1.50	2.00	2.00	2.50	3.00	1.50	2.00	1.75
	1.50	2.00	1.875	1.75	2.00	2.00	1.25	1.75	2.25	1.25	2.25	2.25	1.25	2.75	2.25	1.50	2.25	1.75
	1.75	1.75	1.75	1.75	1.75	1.75	1.25	1.50	1.50	1.75	2.25	2.00	1.75	1.75	3.25	2.25	2.00	2.00
	1.25	2.25	2.00	1.75	1.75	2.00	1.50	1.75	2.00	1.75	2.25	2.25	1.25	2.00	3.25	1.25	2.25	2.25
	1.75	2.25	2.50	2.00	2.00	2.25	1.50	2.00	1.75	1.75	1.50	2.25	1.50	2.75	2.50	1.625	1.75	1.50
	1.75	2.00	1.75	2.00	2.00	2.50	1.50	1.50	1.50	1.50	2.25	1.25	1.75	2.50	2.50	1.875	2.50	1.75
	1.875	2.50	2.00	1.00	2.25	2.00	2.00	2.00	2.00	1.75	2.15	2.00	1.50	2.00	2.00	1.50	1.75	2.50
	2.00	2.25	2.25	1.125	2.25	2.00	1.75	2.00	1.75	1.75	1.75	1.50	1.25	2.50	1.75	1.25	1.75	2.00
	1.75	1.75	1.50	1.75	2.25	2.25	1.50	1.75	2.625	1.25	2.00	1.75	1.50	2.25	2.25	1.50	2.25	2.00
	1.375	2.75	1.75	1.75	2.50	2.00	2.00	1.50	2.25	1.25	3.00	1.75	1.75	2.00	2.00	1.50	1.75	1.50
	1.75	1.625	2.00	1.50	1.375	2.50	1.50	2.00	1.50	2.00	2.50	1.75	1.75	2.75	2.25	1.50	2.75	1.50
	1.50	2.00	2.00	1.50	1.75	1.75	1.25	1.75	1.75	2.00	2.75	1.75	1.50	2.25	2.25	2.00	1.50	1.50
	1.875	1.75	1.75	1.50	1.25	2.50	1.50	2.25	2.00	1.50	2.50	1.50	1.25	1.75	2.00	1.50	2.50	2.00
	1.75	1.50	2.00	2.00	2.00	3.00	1.25	1.50	1.00	1.25	2.75	2.00	1.25	2.75	2.25	1.375	2.50	2.50
	1.75	1.75	2.00	1.75	1.75	1.75	1.50	1.25	1.50	1.50	2.00	2.25	1.75	2.00	2.75	1.50	2.00	1.75
	1.25	1.75	1.50	1.75	2.50	3.25	1.50	2.00	1.75	1.50	2.00	1.75	2.25	1.75	2.25	1.625	2.00	2.00
	1.75	2.00	1.75	2.75	2.50	1.75	1.50	2.00	2.25	1.25	1.75	2.00	1.50	2.00	2.125	1.50	2.25	1.75
	1.25	2.00	2.25	1.25	1.75	1.50	1.50	2.25	2.25	1.25	2.25	2.00	2.00	2.00	2.625	1.875	2.25	1.75
Averages	1.600	1.954	1.975	1.708	2.004	2.351	1.500	1.975	1.804	1.583	2.117	1.917	1.617	2.293	2.358	1.546	2.108	1.892

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements	B¹	2.00	0.7874	B¹	2.75	1.0826	B¹	2.00	0.7874	B¹	2.00	0.7874	B¹	2.25	0.8858	B¹	2.25	0.8858
	B²	2.75	1.0826	B²	2.75	1.0826	B²	2.25	0.8858	B²	3.00	1.1812	B²	3.00	1.1811	B²	3.25	1.2795
	B³	2.50	1.9842	B³	3.25	1.2795	B³	2.625	1.0334	B³	3.00	1.1812	B³	3.25	1.2795	B³	2.50	0.9842
Highest		2.75	1.0826		3.25	1.2795		2.625	1.0334		3.00	1.1811		3.25	1.2795		3.25	1.2795
Minimum measurements	B¹	1.00	0.3937	B¹	1.00	0.3937	B¹	1.00	0.3937	B¹	1.25	0.4921	B¹	1.00	0.3937	B¹	1.25	0.4921
	B²	1.50	0.5905	B²	1.25	0.4921	B²	1.25	0.4921	B²	1.50	0.5905	B²	1.75	0.6889	B²	1.50	0.5905
	B³	1.50	0.5905	B³	1.50	0.5905	B³	1.00	0.3937	B³	1.25	0.4921	B³	1.75	0.6889	B³	1.25	0.4921
Lowest		1.00	0.3937		1.00	0.3937		1.00	1.3937		1.25	1.4921		1.00	0.3937		1.25	1.4921
Average measurements	B¹	1.600	0.6299	B¹	1.708	0.6724	B¹	1.500	0.5905	B¹	1.583	0.6035	B¹	1.617	0.6366	B¹	1.546	0.6086
	B²	1.954	0.7692	B²	2.004	0.7889	B²	1.975	0.7775	B²	2.117	0.8334	B²	2.292	0.9023	B²	2.108	0.8299
	B³	1.975	0.7775	B³	2.354	0.9267	B³	1.804	0.7102	B³	1.917	0.7547	B³	2.358	0.9283	B³	1.892	0.7448
Average		1.843	0.7255		2.022	0.7960		1.760	1.6929		1.856	0.7307		2.089	0.8224		1.849	0.7279
Measurements above average			43			25			28			38			41			41
Measurements below average			47			65			62			52			49			49

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

A.—BOSTON GRADES.

Catalogue number of samples	280c			280d			281a			281b			281c			281d		
Length of fiber in crimp	2½ inches.			2¾ inches.			2 inches.			2¾ inches.			2½ inches.			1¾ inches.		
Number of crimps per inch	20.			20.			20.			20.			20.			20.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.25	2.50	3.00	2.25	2.25	3.50	2.00	2.50	2.25	1.50	1.75	2.00	1.50	2.50	3.00	1.50	2.00	2.00
	1.75	2.00	2.75	1.75	2.50	2.00	1.625	2.75	2.25	1.25	2.00	1.75	2.00	3.125	2.75	2.00	2.00	2.75
	2.50	2.50	2.25	1.75	3.00	2.375	2.125	2.25	2.25	1.625	2.00	2.00	2.50	2.75	2.75	1.50	2.375	2.75
	1.75	2.50	2.50	1.75	3.00	1.75	1.75	3.00	2.50	1.75	2.50	1.75	2.125	2.50	2.50	2.00	2.50	2.50
	2.25	2.50	2.75	1.50	2.25	3.00	1.25	2.00	2.50	1.50	2.00	1.75	1.875	2.75	2.50	1.75	2.25	2.25
	2.00	2.25	2.00	1.50	1.75	3.00	2.25	3.00	2.75	1.625	1.875	1.75	2.25	2.75	2.75	1.50	1.75	2.25
	1.75	2.25	1.75	1.75	2.25	2.00	2.00	2.50	2.75	1.625	2.25	2.00	2.25	2.00	2.25	1.50	1.75	2.00
	2.25	2.00	2.25	1.50	2.25	3.00	2.75	2.375	2.50	1.75	2.25	2.25	2.375	2.25	2.50	1.50	2.00	2.00
	1.00	2.25	2.25	1.50	1.25	2.125	1.75	2.25	2.25	1.25	2.50	2.375	2.00	2.75	2.25	2.25	1.75	2.50
	2.00	2.00	2.25	1.50	2.00	2.25	2.00	1.75	2.25	1.75	2.25	1.75	2.25	2.25	3.25	1.50	2.25	2.75
	1.50	2.00	2.25	2.00	1.50	2.00	1.875	3.25	2.25	1.50	2.00	2.25	2.00	1.75	2.50	1.625	3.00	1.75
	2.50	2.50	2.25	2.00	1.75	2.00	3.00	3.25	2.75	1.75	2.25	2.125	2.00	2.00	1.75	1.875	2.50	3.00
	1.375	2.50	2.00	1.50	2.25	3.50	2.25	3.50	2.75	1.625	1.75	1.75	2.375	2.50	2.25	2.00	2.75	2.25
	2.00	2.50	2.50	1.75	2.50	2.00	1.75	2.50	3.00	1.625	2.25	1.625	2.00	2.00	2.50	2.25	2.25	2.375
	2.50	2.50	2.00	1.00	1.75	2.00	1.75	2.50	2.50	1.625	2.00	2.00	2.00	2.50	2.25	1.50	2.25	2.50
	2.00	2.50	1.75	1.25	2.50	2.00	3.00	1.75	2.25	1.50	2.125	1.75	2.125	2.00	2.75	1.25	2.00	2.75
	3.00	2.00	1.75	2.00	1.75	2.125	3.00	1.75	2.25	1.625	1.75	1.50	1.50	3.125	3.25	1.50	2.00	2.25
	2.00	1.75	2.00	1.50	2.00	2.25	2.00	2.00	2.25	1.75	1.75	2.00	2.25	2.75	2.75	1.75	2.25	2.25
	2.50	2.50	2.25	1.25	2.00	1.50	2.00	2.75	2.25	1.50	1.75	1.75	2.00	2.75	2.75	1.75	2.75	1.875
	1.50	2.00	2.25	1.00	2.00	2.00	2.00	2.75	2.00	1.25	2.25	1.75	1.75	3.25	2.50	2.25	2.25	3.125
	2.25	2.00	2.75	1.00	2.125	2.50	2.00	2.25	2.00	1.50	1.50	2.00	2.25	2.75	2.375	1.75	2.50	2.25
	2.00	2.50	2.00	1.25	2.00	1.50	2.75	2.50	2.25	1.50	2.50	1.75	1.625	2.00	2.875	1.75	2.25	2.50
	1.50	2.50	2.25	1.25	2.375	2.50	2.25	2.50	2.25	1.50	2.00	1.75	1.50	2.25	2.75	2.00	2.25	3.00
	1.50	2.25	2.25	1.75	2.50	1.75	2.875	1.75	2.00	1.75	2.25	1.50	1.875	3.50	3.00	1.75	2.50	2.00
	2.00	1.75	3.75	1.50	2.375	2.75	2.50	1.875	2.50	1.50	2.00	2.00	1.50	2.75	2.75	1.75	2.50	2.50
	2.50	2.00	2.25	2.125	2.375	2.00	2.00	2.875	2.75	1.50	2.25	2.00	1.875	3.00	2.75	1.375	2.25	2.00
	2.25	2.00	2.75	1.75	2.125	2.25	2.25	2.00	2.50	1.75	2.00	2.00	2.125	2.75	2.75	1.50	2.75	2.50
	1.50	2.25	2.50	1.75	2.75	2.125	2.00	1.75	2.25	1.75	2.50	1.50	1.75	2.25	2.75	1.50	2.25	2.375
	2.25	2.00	2.40	2.50	2.25	2.00	2.25	2.00	2.75	1.75	2.00	1.75	2.25	2.00	2.25	1.75	2.75	2.625
	2.25	2.00	2.00	1.50	1.75	2.00	2.50	2.75	3.00	1.75	1.75	1.50	1.75	2.25	2.75	1.625	3.00	2.75
Averages	2.013	2.275	2.408	1.646	2.138	2.141	2.216	2.454	2.658	1.671	2.066	1.854	2.004	2.583	2.592	1.717	2.321	2.421

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	3.00	1.1811	B¹	2.50	0.9843	B¹	3.00	1.1811	B¹	1.875	0.7380	B¹	2.50	0.9842	B¹	2.25	0.8858
	B²	3.00	1.1811	B²	3.00	1.1811	B²	3.50	1.3779	B²	2.50	0.9842	B²	3.50	1.3779	B²	3.00	1.1811
	B³	3.75	1.4763	B³	2.00	1.1811	B³	3.50	1.3779	B³	2.375	0.9350	B³	3.25	1.2795	B³	3.50	1.3779
Highest		3.75	1.4763		3.00	1.1811		3.50	1.3779		2.50	0.9842		3.50	1.3779		3.50	1.3779
Minimum measurements.	B¹	1.00	0.3937	B¹	1.00	0.3937	B¹	1.25	0.4921	B¹	1.25	0.4921	B¹	1.50	0.5905	B¹	1.25	0.4921
	B²	1.75	0.6889	B²	1.25	0.4921	B²	1.75	0.6889	B²	1.50	0.5905	B²	1.75	0.6889	B²	1.75	0.6889
	B³	1.75	0.6889	B³	1.50	0.5905	B³	2.00	0.7874	B³	1.50	0.5905	B³	1.75	0.6889	B³	1.75	0.6889
Lowest		1.00	0.3937		1.00	0.3937		1.25	0.4921		1.25	0.4921		1.50	0.5905		1.25	0.4921
Average measurements.	B¹	2.013	0.7925	B¹	1.646	0.6480	B¹	2.216	0.8724	B¹	1.671	0.6578	B¹	2.004	0.7889	B¹	1.717	0.6759
	B²	2.275	0.8956	B²	2.138	0.8417	B²	2.454	0.9661	B²	2.066	0.8133	B²	2.583	1.0169	B²	2.321	0.9137
	B³	2.408	0.9480	B³	2.141	0.8429	B³	2.658	1.0464	B³	1.854	0.7299	B³	2.592	1.0204	B³	2.421	0.9531
Average		2.177	0.8570		1.975	0.7775		2.443	0.9618		1.864	0.7338		2.393	0.9421		2.153	0.8476
Measurements above average		53			57			46			38			44			48	
Measurements below average		37			33			44			52			44			42	

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

A.—BOSTON GRADES.

	281*e*.			281*f*.			282*a*.			282*b*.			282*c*.			282*d*.		
Catalogue number of samples																		
Length of fiber in crimp	2½ inches.			2⅝ inches.			3¾ inches.			2⅛ inches.			2⅞ inches.			3⅛ inches.		
Number of crimps per inch	20.			20.			16.			16.			16.			16.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	1.75	2.50	2.50	1.625	2.375	2.25	2.75	2.25	4.00	2.375	2.50	3.50	3.375	3.50	3.50	3.00	2.25	4.00
	2.00	2.25	2.50	1.50	2.50	2.25	2.25	3.75	3.25	1.50	2.75	3.25	3.00	2.50	2.875	2.25	2.00	2.75
	1.25	2.75	2.50	2.00	2.50	3.00	1.875	4.00	3.25	2.25	3.00	3.75	3.625	2.75	3.125	3.50	3.50	3.50
	1.75	2.50	1.75	1.75	2.25	2.25	2.00	2.75	2.875	2.50	2.75	4.00	3.25	2.875	2.75	2.25	2.50	2.25
	1.50	2.25	3.00	2.00	2.25	2.25	2.75	3.50	3.00	2.25	2.75	2.75	3.625	3.125	3.00	2.25	2.00	3.75
	1.25	2.50	2.75	1.875	2.375	2.75	2.375	3.00	3.25	2.50	2.00	3.75	2.75	3.375	3.25	2.00	2.375	3.25
	2.00	2.25	2.50	1.25	2.125	2.375	1.625	3.50	3.25	2.25	3.125	3.00	3.25	4.00	3.00	3.25	2.125	3.75
	1.25	2.50	3.00	2.00	2.25	2.50	2.25	2.75	3.00	3.00	2.00	3.75	3.00	2.25	2.50	3.00	2.50	3.75
	2.00	3.00	2.50	2.125	3.00	2.875	1.75	2.00	4.25	3.00	2.375	2.50	2.75	4.25	3.50	2.50	3.50	4.00
	1.75	1.75	2.75	1.375	2.25	2.50	2.375	2.50	3.50	1.50	2.25	2.75	2.75	3.75	3.00	1.75	2.75	3.25
	1.25	2.25	1.75	1.375	2.375	2.75	2.25	2.75	2.875	2.625	1.875	3.375	3.50	3.50	3.00	3.50	2.25	3.00
	1.75	2.75	2.75	1.50	2.625	2.50	2.00	3.25	2.75	2.125	3.25	2.375	3.25	3.375	3.50	2.00	2.875	4.25
	2.50	2.50	1.50	2.375	2.00	3.00	2.25	2.25	2.75	3.125	3.125	4.25	2.25	3.00	2.75	3.00	2.875	2.25
	2.00	1.75	2.25	1.375	2.375	2.50	3.50	2.50	2.50	2.125	2.75	3.75	4.125	3.25	3.25	2.75	2.375	2.75
	1.75	2.25	2.50	1.50	2.875	2.50	2.00	3.00	3.00	1.50	3.00	3.50	2.875	3.375	3.75	3.00	2.75	3.875
	1.25	2.00	2.25	1.25	2.50	3.00	2.00	2.50	3.50	3.00	2.50	1.875	3.00	3.75	3.625	3.00	2.75	4.00
	1.50	2.00	2.25	1.25	2.125	2.50	2.125	3.50	2.50	2.75	2.50	2.875	2.75	2.50	3.125	3.00	2.75	3.50
	2.00	1.75	2.00	1.50	2.75	3.25	1.50	2.25	2.25	2.00	3.50	3.375	2.75	2.75	2.75	3.25	3.875	3.25
	1.75	2.25	2.25	1.50	2.75	2.875	2.00	1.875	3.75	2.25	3.375	2.50	2.125	3.00	4.25	1.875	2.25	3.25
	1.25	2.00	2.25	1.75	2.75	2.50	2.00	2.50	3.25	2.25	3.00	2.75	2.25	2.625	4.00	2.75	2.00	1.50
	1.50	2.00	1.75	1.875	2.50	2.75	2.75	4.25	3.25	2.75	2.75	2.375	3.25	3.00	4.25	2.875	3.75	4.00
	1.25	2.00	2.50	2.125	2.625	2.25	2.50	3.50	4.00	2.75	3.75	2.125	2.75	2.75	3.00	2.125	2.50	3.75
	1.50	2.25	1.75	1.50	3.25	2.50	2.625	3.00	3.00	2.25	2.25	3.25	2.75	3.75	3.375	2.50	3.25	3.25
	1.50	2.50	2.25	1.875	2.50	2.50	2.75	2.00	3.00	2.25	2.75	2.75	2.50	4.00	3.125	3.00	1.75	3.25
	1.25	2.75	2.25	2.125	3.00	2.75	2.875	2.25	4.00	2.25	2.50	3.00	2.50	2.50	3.25	3.00	2.25	5.25
	1.25	2.75	1.75	1.75	2.75	2.50	2.625	2.75	3.50	2.875	3.50	3.50	2.875	3.00	3.125	3.25	2.375	3.25
	1.75	2.75	2.25	1.50	1.875	2.75	3.75	2.25	3.00	2.625	3.875	2.25	2.875	2.50	3.00	2.50	3.75	3.25
	1.75	3.00	2.25	2.75	1.75	2.375	3.00	3.00	4.00	2.75	2.25	2.375	2.75	3.375	3.75	2.00	3.75	3.375
	2.00	3.00	2.25	1.25	2.25	2.75	3.25	3.50	3.25	1.50	3.50	2.125	2.00	2.75	4.00	1.75	3.75	3.50
	2.00	3.00	2.25	2.00	2.00	2.50	3.00	2.50	3.50	1.75	2.25	2.50	2.00	3.50	3.00	2.50	4.00	4.50
Averages	1.641	2.392	2.292	1.721	2.450	2.600	2.425	2.846	3.242	2.354	2.792	2.996	2.883	3.204	3.279	2.646	2.779	3.442

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements	B¹.	2.50	0.9842	B¹.	2.75	1.0826	B¹.	3.50	1.3779	B¹.	3.125	1.2303	B¹.	4.125	1.6240	B¹.	3.50	1.3779
	B².	3.00	1.1811	B².	3.00	1.1811	B².	4.25	1.6732	B².	3.875	1.5255	B².	4.25	1.6732	B².	4.00	1.5748
	B³.	3.00	1.1811	B³.	3.25	1.2795	B³.	4.25	1.6732	B³.	4.25	1.6732	B³.	4.25	1.6732	B³.	5.25	2.0669
Highest		3.00	1.1811		3.25	1.2795		4.25	1.6732		4.25	1.6732		4.25	1.6732		5.25	2.0669
Minimum measurements	B¹.	1.25	0.4921	B¹.	1.25	0.4921	B¹.	1.50	0.5905	B¹.	1.50	0.5905	B¹.	2.00	0.7874	B¹.	1.75	0.6889
	B².	1.75	0.6889	B².	1.75	0.6889	B².	1.875	0.7380	B².	1.875	0.7380	B².	2.25	0.8858	B².	1.75	0.6889
	B³.	1.50	0.5905	B³.	2.25	0.8858	B³.	2.25	0.8858	B³.	1.875	0.7380	B³.	2.75	1.0826	B³.	1.50	0.5905
Lowest		1.25	0.4921		1.25	0.4921		1.50	0.5905		1.50	0.5905		2.00	0.7874		1.50	0.5905
Average measurements	B¹.	1.641	0.6460	B¹.	1.721	0.6775	B¹.	2.425	0.9547	B¹.	2.354	0.9267	B¹.	2.883	1.1350	B¹.	2.646	1.0417
	B².	2.392	0.9417	B².	2.450	0.9645	B².	2.846	1.1204	B².	2.792	1.0992	B².	3.204	1.2614	B².	2.779	1.0940
	B³.	2.292	0.9023	B³.	2.600	1.0236	B³.	3.242	1.2763	B³.	2.996	1.1795	B³.	3.279	1.2909	B³.	3.442	1.3551
Average		2.108	0.8299		2.257	0.8885		2.838	1.1173		2.714	1.685		3.122	1.2291		2.956	1.1637
Measurements above average		46			[illegible]			43			[illegible]			42			47	
Measurements below average		44			[illegible]			47			42			48			43	

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

A.—BOSTON GRADES.

Catalogue number of samples	283a.			283b.			283c.			284a.			284b.			284c.		
Length of fiber in crimp	3½ inches.			3½ inches.			3½ inches.			3½ inches.			3½ inches.			3½ inches.		
Number of crimps per inch	20.			20.			21.			14.			14.			14.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.00	2.00	1.75	1.50	2.00	1.875	1.625	2.50	2.75	1.75	2.00	3.00	3.25	2.75	2.00	2.00	2.50	2.50
	1.25	2.50	2.50	1.50	2.25	2.00	2.00	2.75	2.00	2.75	2.875	4.25	3.375	3.50	2.75	2.75	2.625	3.00
	2.00	2.50	2.75	1.75	2.00	1.50	1.875	2.375	3.00	1.875	2.50	3.00	2.75	3.00	2.00	2.50	2.625	2.50
	1.875	3.00	3.00	1.75	2.375	1.75	1.75	2.25	2.25	2.25	2.50	2.375	3.75	1.50	1.875	2.50	3.00	2.75
	1.50	1.75	2.25	2.00	2.625	2.00	2.00	1.50	2.50	1.25	2.25	2.00	3.25	2.875	2.75	2.375	3.00	2.50
	1.50	2.25	2.75	1.75	2.75	2.00	1.75	2.375	2.50	1.25	2.25	3.50	3.00	2.625	2.75	1.875	2.75	2.50
	2.00	2.00	3.00	2.25	3.00	2.00	2.125	1.75	2.75	1.875	2.00	2.00	2.50	2.125	2.375	2.00	2.75	3.25
	1.50	2.25	2.50	1.50	2.25	1.875	1.875	2.25	2.00	2.25	2.00	3.00	3.00	2.25	3.50	2.25	2.75	3.00
	2.00	2.00	2.50	1.75	2.50	1.75	2.00	3.00	3.25	1.50	2.25	2.75	2.50	3.00	2.50	2.25	2.75	2.50
	1.75	2.75	2.75	1.75	2.00	2.00	1.75	2.25	2.00	1.75	3.25	3.00	3.00	3.00	3.00	2.50	2.875	2.75
	1.75	2.25	2.00	1.75	1.75	2.00	2.00	2.00	2.375	1.75	2.50	4.00	2.25	2.25	3.00	2.125	3.00	2.50
	2.00	2.25	3.00	1.875	2.125	1.75	2.00	2.00	2.25	1.50	1.50	3.50	2.00	3.25	3.25	2.25	2.25	2.875
	1.375	1.875	3.00	1.75	2.50	2.00	1.75	1.50	1.75	1.25	1.75	3.50	2.50	3.00	2.50	2.00	2.25	2.25
	1.75	2.25	2.50	2.00	2.25	2.00	2.125	2.50	3.00	1.25	2.75	3.00	2.25	2.25	2.75	2.25	2.375	3.50
	1.75	2.00	2.00	1.75	2.125	2.00	1.50	2.50	1.75	1.375	2.75	1.50	2.00	2.25	2.25	2.50	3.125	2.25
	2.00	2.50	2.125	1.75	2.875	1.875	2.50	1.75	2.25	2.00	1.75	2.75	3.00	3.50	2.75	3.00	2.75	2.75
	1.75	1.75	2.50	1.75	2.00	1.75	1.75	2.50	2.375	2.25	2.00	4.00	3.50	2.375	2.50	2.25	3.25	2.25
	1.50	1.50	2.50	2.00	2.00	2.50	2.00	2.25	3.25	2.375	1.75	3.25	2.75	3.50	2.75	2.75	2.50	2.50
	2.00	2.25	2.375	1.50	2.25	2.00	1.75	2.00	1.50	1.50	2.125	3.00	2.625	1.75	3.25	2.25	2.00	2.875
	2.00	2.00	2.125	2.125	2.25	2.00	1.75	2.00	2.75	2.50	2.25	3.00	2.375	2.25	2.25	2.375	3.00	3.00
	1.75	1.75	1.75	1.875	2.25	1.75	2.00	2.00	2.25	1.50	2.25	2.25	3.50	2.875	2.50	2.125	2.75	2.25
	2.00	1.75	3.00	1.75	2.50	2.375	3.00	2.75	3.50	1.50	1.75	2.75	3.50	2.25	3.00	2.125	2.50	2.25
	2.25	2.00	2.00	1.50	2.375	2.125	1.875	2.25	2.25	1.75	2.00	4.00	2.75	2.25	2.50	2.375	3.25	2.50
	2.00	2.50	2.00	1.75	2.25	1.75	2.00	2.75	2.00	1.25	2.00	2.50	3.50	3.00	2.50	1.875	2.75	2.25
	2.25	1.75	2.125	1.75	2.25	2.00	2.00	1.75	1.75	1.75	2.00	2.50	2.00	3.75	3.50	2.75	2.125	3.00
	1.75	2.25	1.75	1.625	2.00	1.75	2.25	2.875	1.75	1.25	2.50	2.00	2.75	3.25	2.50	3.00	3.25	3.00
	1.50	2.75	1.50	1.875	2.50	1.75	2.50	2.25	2.25	1.25	3.50	4.00	3.00	3.00	2.50	2.50	2.75	2.50
	1.75	1.50	2.875	1.50	2.75	2.00	1.75	1.75	2.25	1.125	2.00	3.00	3.00	2.75	3.25	2.50	2.75	2.125
	1.75	2.25	2.25	1.75	2.25	1.875	1.50	2.75	2.375	1.375	3.00	4.25	2.50	2.375	2.75	2.50	2.50	2.875
	1.50	2.25	2.00	1.875	1.75	1.75	1.75	2.375	2.25	2.25	2.00	2.75	2.00	3.25	2.50	2.00	3.00	2.375
Averages	1.808	2.146	2.271	1.766	2.259	1.942	1.950	2.283	2.329	1.708	2.279	3.012	2.746	2.708	2.742	2.250	2.725	2.687

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	2.25	0.8858	B¹	2.25	0.8858	B¹	3.00	1.1811	B¹	2.75	1.0826	B¹	3.75	1.4763	B¹	3.00	1.1811
	B²	3.00	1.1811	B²	2.875	1.1318	B²	3.50	1.3779	B²	3.50	1.3779	B²	3.75	1.4763	B²	3.25	1.2795
	B³	3.00	1.1811	B³	2.50	0.9842	B³	3.25	1.2795	B³	4.25	1.6732	B³	3.50	1.3779	B³	3.50	1.3779
Highest		3.00	1.1811		2.875	1.1318		3.50	1.3779		4.25	1.6732		3.75	1.4763		3.50	1.3779
Minimum measurements.	B¹	1.25	0.4921	B¹	1.50	0.5905	B¹	1.50	0.5905	B¹	1.125	0.4429	B¹	2.00	0.7874	B¹	1.875	0.7380
	B²	1.50	0.5905	B²	1.75	0.6890	B²	1.50	0.5905	B²	1.50	0.5905	B²	1.50	0.5905	B²	2.00	0.7874
	B³	1.50	0.5905	B³	1.50	0.5905	B³	1.50	0.5905	B³	1.50	0.5905	B³	1.875	0.7380	B³	2.125	0.8366
Lowest		1.25	0.4921		1.50	0.5905		1.50	0.5905		1.125	0.4429		1.50	0.5905		1.875	0.7380
Average measurements.	B¹	1.808	0.7118	B¹	1.766	0.6952	B¹	1.950	0.7677	B¹	1.708	0.6724	B¹	2.746	1.0811	B¹	2.350	0.9251
	B²	2.146	0.8448	B²	2.259	0.8893	B²	2.283	0.8988	B²	2.279	0.8972	B²	2.708	1.0661	B²	2.725	1.0728
	B³	2.271	0.8940	B³	1.942	0.7645	B³	2.329	0.9169	B³	3.012	1.1858	B³	2.742	1.0795	B³	2.687	1.0578
Average		2.075	0.8169		1.989	0.7832		2.187	0.8610		2.333	0.9185		2.732	1.0755		2.587	1.0185
Measurements above average		30			49			45			39			48			41	
Measurements below average		60			41			45			51			42			49	

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

A.—BOSTON GRADES.

	285b.			285c.			286a.			286b.			286c.			286d.		
Catalogue number of samples																		
Length of fiber in crimp	4½ inches.			4 inches.			4½ inches.			4⅝ inches.			5½ inches.			4⅝ inches.		
Number of crimps per inch	14			14			10			10			10			10		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.00	2.25	2.75	3.50	3.00	2.75	2.25	2.25	2.25	1.50	3.25	3.25	2.75	2.625	2.50	2.50	2.875	2.75
	2.00	2.50	2.50	3.25	3.50	2.75	2.00	3.00	2.50	1.75	2.50	1.75	2.75	2.25	3.50	2.25	2.25	3.125
	2.25	2.125	1.75	2.75	3.50	2.25	3.00	2.00	2.00	1.50	3.25	2.00	2.25	2.75	2.50	2.25	2.75	3.00
	1.375	2.125	2.00	2.00	3.50	3.25	2.75	3.25	2.50	2.00	3.25	2.75	4.00	2.125	3.00	2.75	2.50	3.125
	2.00	2.25	1.75	2.25	2.75	2.00	2.25	2.75	2.75	2.00	3.50	2.25	2.00	3.00	3.25	3.00	3.50	3.00
	2.25	2.50	2.00	2.00	3.00	2.50	2.50	3.875	2.75	1.375	4.00	2.00	3.00	3.25	2.75	3.00	2.50	3.00
	2.50	1.75	1.75	2.25	2.50	2.50	2.50	4.00	2.25	1.625	2.25	2.50	2.75	3.00	2.50	2.00	3.125	3.00
	2.375	2.375	2.50	1.75	3.50	2.75	2.75	2.25	2.375	2.625	1.75	2.25	2.50	3.50	3.125	2.25	2.75	3.00
	2.125	2.75	2.50	1.75	2.50	3.75	3.25	2.75	3.00	1.75	2.00	2.00	3.00	2.50	3.25	3.00	2.875	2.50
	1.75	3.25	3.25	2.50	2.75	2.75	3.50	3.75	2.00	1.25	2.25	2.25	2.75	3.00	3.00	2.75	3.50	3.25
	2.125	1.75	2.375	2.25	3.25	2.75	2.50	2.375	3.375	2.00	2.00	2.50	2.50	2.50	2.00	2.50	3.00	3.00
	1.875	1.75	3.00	2.25	3.50	2.75	2.25	3.00	2.50	1.50	3.00	2.00	2.50	3.125	2.75	3.00	3.375	2.00
	2.00	2.50	2.50	3.00	3.50	2.50	2.25	2.375	2.75	1.50	2.50	2.50	2.50	3.50	1.875	2.50	2.50	2.50
	2.00	3.00	2.50	2.00	2.75	2.00	3.00	2.25	3.50	2.00	2.75	2.75	2.75	3.25	2.25	2.50	3.00	2.75
	2.125	2.25	2.00	2.00	3.50	2.50	3.00	2.25	2.00	1.50	2.50	2.25	3.00	3.00	2.75	2.75	2.75	3.00
	2.25	2.50	2.00	2.125	4.00	2.75	2.50	3.00	2.75	2.00	1.75	3.25	2.50	3.25	2.50	2.00	2.875	2.25
	2.25	3.25	2.25	2.375	3.00	3.25	3.50	2.50	3.375	1.50	1.75	2.00	1.50	3.00	3.50	2.50	2.25	3.25
	2.75	2.50	1.75	2.50	3.00	2.875	3.25	1.75	3.00	2.25	2.75	4.50	2.75	2.50	2.50	2.875	3.00	3.125
	2.25	2.00	2.50	3.00	3.25	3.00	2.25	2.875	3.00	2.00	2.50	2.25	2.25	2.75	2.50	2.50	2.25	2.75
	3.00	2.50	2.25	2.50	3.00	3.25	2.75	3.50	2.75	1.75	3.25	2.25	3.50	2.25	2.00	2.50	2.00	3.25
	2.50	2.25	3.00	3.00	2.25	3.00	2.625	2.50	3.25	2.00	2.50	3.00	2.50	2.25	2.50	2.50	2.00	3.00
	1.875	1.875	2.375	2.50	3.00	3.00	2.50	2.25	2.50	2.00	2.00	2.50	3.125	2.875	3.00	2.50	2.50	3.00
	2.00	2.75	2.50	2.00	3.50	2.75	2.625	2.375	2.25	2.00	3.50	2.50	2.625	2.375	3.25	2.50	3.00	2.50
	2.125	2.25	2.75	1.75	3.25	3.375	2.75	2.875	2.25	1.875	1.75	4.00	2.50	2.75	2.75	2.75	2.625	3.00
	2.00	2.75	1.75	2.50	3.25	3.125	3.75	2.25	2.50	1.75	2.00	3.50	2.875	4.125	2.50	2.875	2.25	2.75
	2.50	2.50	2.50	2.25	3.00	2.75	1.75	2.75	2.375	2.00	2.25	1.75	1.875	3.375	2.75	3.00	2.375	2.00
	2.625	2.50	2.00	1.75	3.50	3.375	3.00	3.50	2.00	2.25	3.00	2.00	2.75	3.125	2.00	2.25	3.00	2.75
	2.25	2.50	3.00	1.75	2.25	2.125	2.50	3.50	3.00	1.75	3.00	3.50	2.00	2.875	3.25	3.50	2.75	1.75
	2.00	2.875	2.50	2.00	2.75	2.50	3.25	3.00	3.25	1.50	2.00	3.50	2.75	3.25	2.50	2.50	1.50	2.75
	2.375	1.75	3.25	2.50	2.75	3.25	2.25	2.375	2.50	1.75	2.50	4.50	3.50	2.00	3.25	2.75	2.00	3.375
Averages	2.183	2.379	2.217	2.300	3.092	2.804	2.700	2.771	2.642	1.808	2.575	2.667	2.667	2.871	2.725	2.617	2.654	2.817

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹.	3.00	1.1811	B¹.	3.50	1.3779	B¹.	3.75	1.4763	B¹.	2.625	1.0334	B¹.	4.00	1.5748	B¹.	3.50	1.3779
	B².	3.25	1.2795	B².	4.00	1.5748	B².	4.00	1.5748	B².	4.00	1.5748	B².	4.125	1.6240	B².	3.50	1.3779
	B³.	3.25	1.2795	B³.	3.75	1.4763	B³.	3.50	1.3779	B³.	4.50	1.7716	B³.	3.50	1.3779	B³.	3.375	1.3287
Highest		3.25	1.2795		4.00	1.5748		4.00	1.5748		4.50	1.7716		4.125	1.6240		3.50	1.3779
Minimum measurements.	B¹.	1.375	0.5413	B¹.	1.75	0.6889	B¹.	1.75	0.6889	B¹.	1.25	0.4921	B¹.	1.50	0.5905	B¹.	2.00	0.7874
	B².	1.75	0.6889	B².	2.25	0.8858	B².	1.75	0.6889	B².	1.75	0.6889	B².	2.00	0.7874	B².	1.50	0.5905
	B³.	1.75	0.6889	B³.	2.00	0.7874	B³.	2.00	0.7874	B³.	1.75	0.6889	B³.	1.875	0.7380	B³.	1.75	0.6889
Lowest		1.375	0.5413		1.75	0.6889		1.75	0.6889		1.25	0.4921		1.50	0.5905		1.50	0.5905
Average measurements.	B¹.	2.183	0.8594	B¹.	2.300	0.9055	B¹.	2.700	1.0629	B¹.	1.808	0.7118	B¹.	2.667	1.0499	B¹.	2.617	1.0303
	B².	2.379	0.9366	B².	3.092	1.2173	B².	2.771	1.0909	B².	2.575	1.0137	B².	2.871	1.1303	B².	2.654	1.0448
	B³.	2.217	0.8728	B³.	2.804	1.1039	B³.	2.642	1.0401	B³.	2.667	1.0499	B³.	2.725	1.0728	B³.	2.817	1.1090
Average		2.260	0.8897		2.732	1.0755		2.704	1.0645		2.350	0.9251		2.754	1.0842		2.696	1.0614
Measurements above average		48			53			43			35			36			52	
Measurements below average		47			57			47			55			38			60	

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

A.—BOSTON GRADES.

	287a.			287b.			287c.			287d.			288a.			288b.		
Catalogue number of samples																		
Length of fiber in crimp	6 inches.			5½ inches.			6½ inches.			6½ inches.			3 inches.			3½ inches.		
Number of crimps per inch	——			——			——			——			——			——		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³	B¹.	B².	B³.
Actual measurement in centimillimeters.	3.50	3.125	3.50	3.00	3.125	4.25	3.625	3.25	3.25	3.25	3.75	6.00	3.50	3.50	3.50	4.50	2.50	3.50
	3.50	3.50	4.00	3.50	4.00	4.00	3.125	3.25	4.25	4.00	3.50	5.50	3.375	3.75	3.25	3.00	3.75	3.25
	2.50	3.25	3.50	3.50	3.25	4.00	4.00	4.25	3.25	2.125	3.25	5.50	3.00	3.50	3.75	3.375	4.00	3.50
	3.75	3.50	3.00	3.75	3.50	4.50	3.75	3.75	3.50	1.75	1.75	3.50	3.75	3.75	3.25	2.375	3.27	4.00
	3.00	2.50	2.375	3.00	4.50	2.50	2.50	3.25	3.375	3.50	3.00	3.50	3.00	3.00	3.75	3.50	3.00	4.00
	3.00	2.375	4.00	3.00	3.75	3.75	3.25	3.25	3.375	4.00	2.50	5.75	3.00	3.50	3.25	3.25	2.25	3.50
	2.625	2.75	2.50	3.00	4.375	5.00	3.25	3.375	3.25	3.25	3.25	4.375	3.50	3.25	3.50	2.875	4.025	3.877
	2.75	3.00	2.50	4.25	3.00	4.125	2.50	3.50	3.125	3.50	3.00	5.25	3.75	3.50	3.50	2.50	2.75	5.50
	4.00	2.875	3.50	3.75	4.50	4.25	3.25	3.75	3.50	2.00	3.75	4.75	3.875	3.50	3.375	2.25	3.50	4.25
	3.25	3.00	2.75	4.375	3.125	4.00	2.75	3.375	3.00	3.75	3.00	5.75	3.50	3.25	3.75	2.375	2.50	3.50
	3.125	3.25	3.125	3.50	3.75	5.00	3.25	3.25	2.75	2.875	2.75	4.50	2.50	3.375	2.75	2.25	3.75	5.875
	3.00	3.75	2.25	4.375	3.875	3.25	2.50	2.75	3.25	4.375	2.25	4.25	3.75	3.50	2.75	2.50	2.75	3.875
	3.50	2.75	3.75	3.25	4.00	3.25	3.50	3.75	3.50	3.125	2.125	4.00	2.625	2.75	3.25	2.375	4.75	3.50
	3.375	2.875	3.50	4.00	3.75	3.625	3.50	3.50	3.00	2.00	3.00	5.25	3.50	2.875	3.50	1.625	2.75	3.625
	2.75	2.75	4.00	2.875	3.625	6.00	3.625	4.25	3.50	2.00	2.75	5.00	2.875	3.00	3.875	2.50	3.50	5.75
	2.50	2.00	3.50	3.50	4.50	3.625	3.00	4.00	3.625	4.25	2.75	5.50	3.00	3.25	3.50	1.75	2.25	4.625
	3.00	2.50	2.625	3.00	3.875	3.50	3.25	3.75	3.50	3.75	3.00	3.875	3.125	2.75	3.75	1.75	4.00	4.25
	2.75	2.875	4.00	3.25	3.25	5.50	3.50	3.625	3.375	3.25	3.00	3.375	3.125	3.50	3.00	1.375	3.00	4.75
	2.25	3.50	2.50	3.375	3.50	4.25	3.00	4.125	3.50	4.25	3.75	3.25	2.50	3.00	3.50	2.75	2.50	4.00
	3.375	2.25	2.75	3.75	4.25	4.25	3.75	3.25	2.75	2.50	4.00	4.00	2.75	4.00	3.00	3.75	3.50	4.75
	2.875	2.75	4.00	4.25	4.50	4.00	3.125	3.50	3.50	2.50	2.25	2.50	2.75	3.75	3.50	2.00	2.50	5.50
	3.125	3.25	2.875	3.25	3.75	4.00	3.125	3.50	3.375	2.00	2.00	3.50	3.75	3.00	3.75	2.25	3.25	4.50
	3.75	3.375	3.25	3.00	2.75	4.00	3.00	3.50	2.75	3.875	2.25	4.25	3.50	3.50	3.50	1.75	2.25	5.625
	2.25	2.50	3.125	3.75	4.00	4.25	3.875	3.50	3.375	3.00	3.00	4.50	3.75	4.00	4.25	4.25	5.00	5.50
	2.75	2.75	3.25	3.625	4.125	4.50	3.50	3.25	3.00	2.75	4.75	5.00	3.25	4.00	3.875	3.375	3.75	4.375
	3.75	3.375	2.875	3.50	4.00	3.75	3.66	4.00	3.25	1.75	3.25	3.00	4.25	2.875	3.25	1.75	4.00	5.625
	3.00	3.125	3.25	3.50	3.125	4.75	3.375	3.50	3.50	2.25	2.50	5.25	3.50	3.50	2.875	2.00	3.00	6.00
	3.00	2.00	3.00	2.625	3.25	3.50	3.25	3.50	3.375	2.50	3.50	5.00	2.50	3.25	3.50	3.375	3.75	6.75
	3.50	2.00	4.25	3.50	3.25	3.25	3.75	4.00	3.125	1.75	3.375	3.25	3.275	3.50	3.50	1.875	2.375	5.50
	3.75	2.50	2.50	3.625	3.50	5.00	3.375	3.75	2.75	2.25	3.25	3.50	3.25	3.75	3.00	1.50	3.25	4.75
Averages	3.108	2.867	3.167	3.321	3.725	4.188	3.308	3.575	3.297	2.871	3.008	4.421	3.263	3.388	3.425	2.525	3.233	4.750

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements	B¹	4.00	1.5748	B¹	5.00	1.9685	B¹	4.00	1.5748	B¹	4.375	1.7224	B¹	4.25	1.6732	B¹	4.50	1.7716
	B²	3.75	1.4763	B²	4.50	1.7716	B²	4.25	1.6732	B²	4.75	1.8700	B²	4.00	1.5748	B²	5.00	1.9685
	B³	4.25	1.6732	B³	6.00	2.3622	B³	4.25	1.6732	B³	6.00	2.3622	B³	4.25	1.6732	B³	6.75	2.6574
Highest	.....	4.25	1.6732	.....	6.00	2.3622	.....	4.25	1.6732	.....	6.00	2.3622	.....	4.25	1.6732	.....	6.75	2.6574
Minimum measurements	B¹	2.25	0.8858	B¹	2.50	0.9842	B¹	2.50	0.9842	B¹	1.75	0.6889	B¹	2.50	0.9842	B¹	1.375	0.5413
	B²	2.00	0.7874	B²	2.75	1.0826	B²	2.75	1.0826	B²	1.75	0.6889	B²	2.75	1.0826	B²	2.25	0.8858
	B³	2.25	0.8858	B³	3.25	1.2795	B³	2.75	1.0826	B³	2.50	0.9842	B³	2.75	1.0826	B³	3.25	1.2795
Lowest	.....	2.00	0.7874	.....	2.50	0.9842	.....	2.50	0.9842	.....	1.75	0.6889	.....	2.50	0.9842	.....	1.375	0.5413
Average measurements	B¹	3.108	1.2236	B¹	3.321	1.3862	B¹	3.308	1.3024	B¹	2.871	1.1301	B¹	3.263	1.2846	B¹	2.525	0.9940
	B²	2.867	1.1287	B²	3.725	1.4665	B²	3.575	1.4074	B²	3.008	1.1842	B²	3.388	1.3338	B²	3.233	1.2728
	B³	3.167	1.2469	B³	4.188	1.6488	B³	3.297	1.2940	B³	4.421	1.7405	B³	3.425	1.3484	B³	4.750	1.8701
Average	.....	3.047	1.1996	.....	3.811	1.5023	.....	3.390	1.3346	.....	3.433	1.3515	.....	3.359	1.3224	.....	3.503	1.3791
Measurements above average		41			40			42			40			52			37	
Measurements below average		45			50			46			50			58			47	

XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

	A.—BOSTON GRADES.									B.—PHILADELPHIA GRADES.								
Catalogue number of samples	289*a*.			289*b*.			289*c*.			290.			291.			292.		
Length of fiber in crimp	2½ inches.			3 inches.			5 inches.			1⅝ inches.			1¾ inches.			1½ inches.		
Number of crimps per inch	——			——			——			26.			26.			22.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.125	2.375	2.00	2.25	2.625	2.625	5.25	2.75	4.75	1.50	1.75	1.625	1.125	2.75	1.50	1.625	2.125	2.00
	2.75	2.00	2.25	2.50	2.25	2.75	2.25	1.75	5.50	1.75	1.75	1.50	1.50	2.00	1.75	1.50	1.875	1.75
	2.75	2.00	2.375	2.00	2.625	3.75	5.00	2.375	4.25	1.25	2.00	2.00	1.625	1.75	1.75	1.50	1.75	1.75
	2.25	2.25	2.50	1.875	2.625	3.375	2.25	3.25	7.50	1.25	1.50	1.50	1.375	2.00	1.75	1.75	1.75	2.125
	2.375	2.75	1.75	2.25	3.375	3.125	2.875	2.25	5.75	1.625	1.75	1.25	1.50	1.875	1.75	1.75	1.50	1.50
	2.375	2.25	3.00	2.25	2.875	2.50	2.50	4.625	4.75	1.75	2.125	1.50	1.25	1.75	1.625	1.375	1.75	1.75
	2.75	1.75	1.50	2.75	2.75	2.625	1.75	2.25	7.00	1.50	1.375	1.50	1.50	1.875	1.875	1.875	1.50	1.50
	2.00	2.50	2.50	2.00	2.125	3.50	2.50	2.25	4.00	1.50	2.00	1.50	1.50	2.00	1.50	1.75	1.625	1.50
	2.50	2.00	1.875	3.50	2.25	3.00	2.50	2.25	4.75	1.375	2.25	1.375	1.25	2.00	1.75	1.50	1.625	1.50
	2.375	2.00	1.75	2.875	2.625	2.875	2.00	3.00	5.75	1.125	2.25	2.25	1.50	2.00	1.50	1.75	1.75	2.00
	2.375	1.75	1.875	2.875	3.25	3.00	2.75	3.00	6.00	1.25	1.75	1.50	1.75	1.75	1.50	1.875	1.875	2.125
	2.625	1.875	3.25	2.75	3.00	2.75	1.75	2.25	5.50	1.50	2.25	2.25	1.50	2.00	1.625	1.75	1.625	1.25
	2.25	1.75	1.875	1.75	2.00	3.375	2.50	2.00	5.75	1.625	2.00	1.875	1.75	1.75	1.50	1.875	2.125	1.875
	2.75	1.50	2.00	2.50	2.125	2.875	1.50	3.375	3.50	1.375	2.00	1.25	2.00	1.50	1.50	1.75	2.00	1.75
	2.50	2.25	1.75	2.625	2.875	3.50	1.75	2.25	6.00	1.50	2.00	1.75	1.25	1.875	1.50	1.75	2.00	1.50
	2.00	2.00	2.50	2.75	2.625	2.50	2.25	2.50	5.25	1.25	1.75	1.50	1.50	1.75	1.25	1.625	2.00	1.75
	2.125	1.50	2.125	2.75	3.25	3.25	1.75	3.00	5.75	1.25	1.75	1.50	1.75	2.00	1.625	1.625	2.00	1.75
	3.125	2.25	2.375	2.50	3.75	2.50	1.25	2.75	5.00	1.25	1.50	1.625	1.25	2.00	1.75	1.75	2.125	1.75
	2.625	1.325	2.25	1.75	2.00	2.625	1.625	3.00	5.25	1.375	1.875	1.75	1.75	1.75	1.50	1.625	1.75	1.50
	2.50	1.625	1.75	3.00	3.25	3.75	2.625	2.375	4.50	1.25	2.50	1.50	1.50	2.25	1.375	1.50	2.00	1.75
	2.375	1.875	2.25	2.375	2.75	3.50	2.00	2.625	4.25	1.50	2.00	1.75	1.375	1.50	1.375	1.50	1.75	2.00
	2.00	1.625	2.50	2.625	3.00	3.00	2.00	2.25	6.25	1.50	1.50	1.75	1.375	2.50	1.50	1.25	2.50	2.00
	3.00	1.75	1.875	2.75	3.00	2.75	1.50	2.50	4.00	1.50	2.125	1.75	1.25	2.25	1.625	1.50	1.50	1.50
	2.00	1.875	1.75	2.25	3.00	2.75	2.50	2.375	4.50	1.25	1.875	1.375	1.125	1.75	1.75	1.625	2.00	2.00
	2.875	1.50	1.75	2.50	3.125	3.00	2.25	4.75	5.00	1.25	2.125	2.00	1.50	2.25	1.50	1.50	2.25	1.875
	2.75	2.00	1.875	2.75	2.50	2.375	1.75	2.75	5.50	1.50	2.00	1.875	1.50	1.75	1.75	1.375	2.25	1.50
	2.625	1.75	2.125	3.25	2.50	3.00	1.75	2.00	5.50	1.50	1.875	1.50	1.50	2.00	1.625	1.625	2.00	1.875
	2.50	2.25	2.375	3.125	2.375	2.75	1.75	2.625	5.50	1.25	2.25	1.625	1.625	1.75	1.50	1.50	1.75	1.75
	2.50	1.50	1.25	2.50	3.00	2.50	2.00	2.25	5.75	1.25	2.875	2.00	1.50	1.75	1.25	1.625	2.00	1.875
	2.75	2.125	3.00	2.25	3.25	3.50	2.50	2.25	6.00	1.375	1.75	1.50	1.625	1.875	1.50	1.75	2.25	1.875
Averages	2.483	1.942	2.133	2.529	2.758	2.979	2.288	2.654	5.125	1.404	1.950	1.654	1.483	1.917	1.575	1.625	1.900	1.754

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	3.125	1.2303	B¹	3.50	1.3779	B¹	5.25	2.0669	B¹	1.75	0.6889	B¹	2.00	0.7874	B¹	1.875	0.7380
	B²	2.75	1.0826	B²	3.75	1.4763	B²	4.75	1.8700	B²	2.876	1.1318	B²	2.75	1.0826	B²	2.50	0.9842
	B³	3.25	1.2795	B³	3.75	1.4763	B³	7.50	2.9527	B³	2.25	0.8858	B³	1.875	0.7380	B³	2.125	0.8366
Highest		3.25	1.2795		3.75	1.4763		7.50	2.9527		2.875	1.1318		2.75	1.0826		2.50	0.9842
Minimum measurements.	B¹	2.00	0.7874	B¹	1.75	0.6889	B¹	1.25	0.4921	B¹	1.25	0.4921	B¹	1.125	0.4429	B¹	1.25	0.4921
	B²	1.50	0.5905	B²	2.00	0.7874	B²	1.75	0.6889	B²	1.50	0.5905	B²	1.50	0.5905	B²	1.50	0.5905
	B³	1.25	0.4921	B³	2.50	0.9842	B³	3.50	1.3779	B³	1.25	0.4921	B³	1.25	0.4921	B³	1.25	0.4921
Lowest		1.25	0.4921		1.75	0.6889		1.25	0.4921		1.25	0.4921		1.125	0.4929		1.25	0.4921
Average measurements.	B¹	2.483	0.9775	B¹	2.529	0.9956	B¹	2.288	0.9007	B¹	1.404	0.5527	B¹	1.483	0.5838	B¹	1.625	0.6397
	B²	1.942	0.7645	B²	2.758	1.0858	B²	2.654	1.0448	B²	1.950	0.7677	B²	1.917	0.7547	B²	1.900	0.7480
	B³	2.133	0.8397	B³	2.979	1.1728	B³	5.125	2.0177	B³	1.654	0.6511	B³	1.575	0.6200	B³	1.754	0.6905
Average		2.186	0.8000		2.755	1.0846		3.356	1.3212		1.669	0.6570		1.658	0.6527		1.760	0.6929
Measurements above average		45			87			5			40			42			82	
Measurements below average		45			40			85			50			48			■	

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

B.—PHILADELPHIA GRADES.

Catalogue number of samples	293.			294.			295a.			295b.			295c.			296.		
Length of fiber in crimp	2 inches.			2 inches.			1¾ inches.			2 inches.			2½ inches.			2½ inches.		
Number of crimps per inch	22.			26.			26.			26.			26.			22.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	1.00	1.50	2.25	1.125	1.50	1.75	1.625	1.75	1.625	1.50	1.75	1.50	1.50	1.75	2.00	1.375	1.75	1.75
	1.50	1.25	1.75	1.25	2.00	1.75	1.50	2.00	2.25	1.50	2.00	1.75	1.375	1.625	1.50	1.75	2.125	2.00
	1.625	1.25	2.125	1.375	1.50	1.375	1.75	1.75	1.875	1.125	1.75	1.75	1.25	1.375	1.75	1.125	1.50	2.00
	1.26	1.25	1.50	1.25	1.00	1.50	2.25	2.125	2.50	1.875	1.875	2.00	1.25	1.50	1.625	1.50	1.75	1.75
	1.25	1.625	1.50	1.50	2.00	1.50	1.75	2.125	2.00	1.125	1.75	2.00	1.50	1.75	2.00	2.00	2.00	2.00
	1.25	1.25	1.375	1.25	1.50	1.75	1.75	1.625	1.25	1.25	1.75	1.50	1.875	1.375	1.75	1.25	1.75	1.75
	1.375	1.75	1.50	1.25	1.75	1.50	2.25	1.75	1.625	1.50	1.875	2.00	1.125	1.50	1.75	1.75	2.25	2.25
	1.125	1.375	1.50	1.25	1.75	1.875	1.875	1.625	1.75	1.75	1.75	1.625	1.625	2.25	1.75	1.375	2.50	2.25
	0.875	1.25	1.50	1.25	1.375	1.75	1.75	2.00	1.75	1.75	1.625	1.625	1.625	1.50	2.00	1.375	2.50	2.50
	0.875	1.25	2.00	1.375	1.75	1.75	1.625	1.625	2.125	1.75	1.75	1.75	1.625	1.75	2.00	1.125	2.25	2.00
	1.00	1.875	1.625	1.125	1.75	1.75	1.875	1.625	1.875	1.25	1.625	1.50	1.75	1.50	2.25	1.25	1.50	2.125
	1.375	1.50	1.50	1.25	1.625	1.875	1.875	1.50	1.625	1.25	1.75	1.50	1.50	1.50	2.00	1.50	1.75	1.75
	1.375	1.125	1.50	0.75	1.50	1.625	1.50	2.25	1.75	1.875	1.625	1.875	1.50	1.375	1.50	1.50	1.50	2.25
	1.25	1.25	1.25	1.25	1.875	1.625	1.75	1.50	1.75	1.75	2.00	1.50	1.25	1.75	2.25	1.25	2.00	2.00
	1.25	1.25	1.375	1.125	1.625	1.50	1.75	2.25	2.00	1.875	1.75	1.625	1.00	1.875	1.75	1.375	1.50	1.75
	1.625	1.50	1.875	1.50	1.25	1.50	1.875	1.75	2.50	1.375	1.25	1.25	1.50	1.50	2.00	1.25	2.00	2.00
	1.125	1.75	2.125	1.375	1.75	1.625	1.875	1.75	1.875	1.125	1.75	1.75	1.625	1.375	2.25	1.50	2.25	1.75
	1.50	1.375	1.50	1.125	1.50	1.625	1.875	1.50	1.375	0.875	1.50	1.25	1.50	1.625	1.75	1.75	2.25	2.25
	1.375	1.875	1.50	1.25	1.75	1.75	1.50	2.00	2.375	1.125	1.50	1.75	1.00	1.875	1.50	1.25	2.375	2.25
	1.375	1.25	1.625	1.125	1.50	1.50	1.625	1.50	2.00	1.00	1.75	1.875	1.25	1.125	2.00	1.50	2.25	2.00
	1.25	1.25	1.75	1.25	1.75	1.75	1.75	1.375	2.00	1.75	1.75	1.375	1.25	1.25	1.75	1.50	2.00	1.75
	1.00	1.625	1.875	1.25	1.875	1.625	1.875	1.25	2.625	1.625	1.875	1.75	1.25	1.25	1.50	1.50	2.00	2.00
	1.50	1.25	1.375	1.125	1.75	1.75	1.625	2.25	2.00	1.375	2.125	1.625	1.625	1.50	1.75	1.375	2.50	1.625
	1.00	1.375	1.625	1.25	1.375	1.50	1.75	1.625	2.50	1.25	1.75	2.00	1.125	1.50	1.75	1.625	2.00	1.75
	1.375	1.25	1.75	1.25	1.50	1.75	1.50	1.75	2.50	1.25	1.50	1.50	1.50	1.375	2.00	1.375	1.875	2.125
	1.375	1.50	1.625	1.125	1.75	1.50	1.625	1.75	1.75	1.75	1.875	2.00	1.50	1.25	2.00	1.50	1.75	1.50
	1.00	1.25	2.00	1.125	1.50	1.75	1.875	1.75	1.50	1.50	1.75	2.00	1.25	1.375	1.75	1.50	2.125	1.75
	1.375	1.125	1.875	1.25	1.625	1.75	1.375	2.00	2.125	1.875	1.75	1.75	1.25	1.375	2.00	1.25	1.50	1.75
	1.00	1.375	2.125	1.25	1.125	1.75	1.50	1.75	2.375	1.25	1.875	1.75	1.375	1.375	1.75	1.375	1.75	2.25
	1.75	1.125	1.625	1.125	1.75	1.50	1.75	1.75	2.25	1.25	1.75	2.00	1.125	1.375	2.25	1.25	2.00	1.875
Averages	1.267	1.371	1.667	1.225	1.608	1.639	1.742	1.783	1.984	1.450	1.746	1.704	1.396	1.517	1.862	1.433	1.975	1.942

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	1.625	0.6397	B¹	1.50	0.5905	B¹	2.25	0.8858	B¹	1.875	0.7380	B¹	1.875	0.7380	B¹	2.00	0.7874
	B²	1.875	0.7380	B²	2.00	0.7874	B²	2.25	0.8858	B²	2.125	0.8366	B²	2.25	0.8858	B²	2.50	0.9842
	B³	2.25	0.8858	B³	1.875	0.7380	B³	2.625	1.0334	B³	2.00	0.7874	B³	2.25	0.8858	B³	2.25	0.8858
Highest		2.25	0.8858		2.00	0.7874		2.625	1.0334		2.125	0.8366		2.25	0.8858		2.50	0.9842
Minimum measurements.	B¹	0.875	0.3445	B¹	0.75	0.2953	B¹	1.375	0.5413	B¹	0.875	0.3445	B¹	1.00	0.3937	B¹	1.125	0.4429
	B²	1.125	0.4429	B²	1.00	0.3937	B²	1.25	0.4921	B²	1.25	0.4921	B²	1.125	0.4429	B²	1.50	0.5905
	B³	1.25	0.4921	B³	1.375	0.5413	B³	1.25	0.4921	B³	1.25	0.4921	B³	1.50	0.5905	B³	1.50	0.5905
Lowest		0.875	0.3445		0.75	0.2953		1.25	0.4921		0.875	0.3445		1.00	0.3937		1.125	0.4429
Average measurements.	B¹	1.267	0.4988	B¹	1.225	0.4822	B¹	1.742	0.6858	B¹	1.450	0.5708	B¹	1.396	0.5496	B¹	1.433	0.5641
	B²	1.371	0.5397	B²	1.608	0.6330	B²	1.783	0.7019	B²	1.746	0.6874	B²	1.517	0.5972	B²	1.975	0.7775
	B³	1.667	0.6562	B³	1.650	0.6496	B³	1.984	0.7811	B³	1.704	0.6708	B³	1.862	0.7330	B³	1.942	0.7645
Average		1.435	0.5649		1.494	0.5881		1.836	0.7228		1.633	0.6311		1.592	0.6267		1.783	0.7019
Measurements above average			40			38			39			50			42			38
Measurements below average			50			54			51			40			48			52

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

B.—PHILADELPHIA GRADES.

	297.			298*a*.			298*b*.			298*c*.			298*d*.			298*e*.		
Catalogue number of samples																		
Length of fiber in crimp	2½ inches.			2¼ inches.			1½ inches.			2 inches.			2⅜ inches.			2¾ inches.		
Number of crimps per inch	22.			22.			22.			22.			22.			22.		
Number of section	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.
Actual measurement in centimillimeters.	1.25	1.375	1.75	2.375	2.00	2.25	1.50	2.00	2.00	1.875	1.50	2.25	2.25	2.50	1.50	2.25	2.00	1.50
	1.25	1.75	1.625	2.375	2.50	2.00	1.25	2.25	2.375	1.50	1.50	2.00	1.50	2.375	1.50	1.25	1.50	1.75
	1.25	2.125	1.125	2.00	2.00	1.625	1.875	2.125	1.50	1.375	2.125	2.00	1.50	2.375	1.75	1.625	2.00	1.875
	1.625	1.375	1.75	2.00	1.75	2.00	1.50	2.00	2.00	1.25	2.625	2.375	2.00	2.00	2.625	1.00	1.75	1.75
	1.125	1.25	1.375	3.50	2.00	2.00	2.25	2.125	1.75	1.50	1.75	1.75	1.625	2.50	1.50	1.75	1.75	1.25
	1.375	2.25	2.00	2.25	2.00	2.25	2.00	2.25	1.75	1.50	1.625	1.75	1.50	1.625	1.875	1.75	1.625	2.00
	1.75	2.25	1.50	2.25	2.50	2.00	2.00	1.75	2.00	1.50	2.00	2.00	2.00	2.00	1.50	1.25	1.625	2.00
	1.75	1.875	1.50	2.50	2.50	2.00	1.50	2.00	2.25	1.50	2.00	2.00	2.00	1.75	2.50	1.50	1.75	2.75
	1.375	1.875	2.375	2.625	2.125	2.50	1.75	2.00	2.25	1.625	1.875	2.00	1.50	1.75	1.375	1.25	1.875	1.375
	1.25	1.75	2.00	2.00	2.00	2.125	2.00	2.125	2.00	1.50	1.50	2.125	1.50	2.25	1.50	1.26	1.625	1.75
	1.25	1.625	1.50	2.375	2.00	1.625	1.50	2.25	1.50	1.00	2.375	2.00	2.25	2.00	1.50	1.25	1.75	1.50
	1.25	2.625	1.50	1.75	2.25	1.75	1.875	2.25	1.625	1.50	2.375	2.125	1.375	2.375	1.875	1.25	1.75	1.375
	1.50	1.75	2.125	2.00	2.00	2.50	2.25	2.00	1.875	1.75	2.00	1.75	2.00	2.00	1.25	1.25	1.75	1.50
	1.00	1.75	1.75	2.25	2.50	1.625	1.50	1.75	1.75	1.50	1.875	1.75	2.00	2.125	1.25	1.25	1.625	1.625
	1.25	1.625	1.75	1.75	2.375	2.25	1.25	1.25	1.75	2.25	2.50	2.00	2.125	2.125	1.50	1.375	1.75	1.25
	1.50	1.125	1.75	2.25	2.25	2.125	1.375	1.875	2.375	1.375	2.00	2.25	1.25	1.875	1.50	1.50	2.00	1.75
	1.25	1.50	1.75	2.375	2.00	1.875	1.875	2.00	1.875	1.50	2.00	2.00	1.50	2.125	1.25	1.50	2.00	1.625
	1.75	1.75	1.75	2.125	2.25	2.00	2.00	1.75	2.125	1.00	1.875	2.00	2.00	2.25	1.75	2.00	2.00	1.15
	1.50	1.75	2.00	2.50	2.25	2.25	2.00	1.875	1.625	1.25	2.00	2.25	2.00	2.25	2.00	1.875	1.50	2.25
	1.50	1.25	1.72	1.875	2.25	2.375	1.75	1.50	1.75	1.50	2.125	2.00	1.50	1.75	2.25	1.50	1.875	2.25
	1.625	1.25	1.50	2.00	2.125	2.00	1.25	1.75	2.25	1.25	1.875	1.75	1.875	2.00	1.875	1.25	1.75	2.25
	1.76	1.75	2.50	2.50	2.125	2.50	1.75	2.375	1.75	1.25	1.75	2.00	1.75	1.75	2.50	1.375	2.25	1.375
	1.625	1.625	1.75	1.75	1.75	1.75	2.125	1.75	1.75	1.50	1.875	2.50	1.50	1.875	1.25	1.375	2.00	1.50
	1.75	1.75	2.25	2.25	2.00	2.25	1.50	2.50	2.25	1.75	2.00	2.25	1.25	2.125	1.75	1.25	1.75	1.75
	1.50	1.625	2.50	2.25	1.75	1.75	1.375	2.375	1.50	1.75	2.00	2.00	1.50	2.00	1.75	1.75	2.25	1.875
	1.00	1.875	2.25	2.25	2.375	1.50	1.25	1.75	1.75	1.25	2.00	2.00	1.75	2.50	1.50	1.50	1.50	1.625
	1.25	1.75	2.00	2.25	1.75	1.50	1.00	1.75	1.625	1.625	1.75	1.625	1.375	1.75	2.25	1.875	1.75	1.75
	1.26	1.875	1.75	2.50	1.75	1.875	1.625	1.50	2.25	1.50	2.25	2.00	1.625	2.25	2.75	1.625	1.625	2.00
	1.25	1.50	1.625	1.75	1.50	1.875	1.50	2.25	2.125	1.50	2.00	2.00	2.00	2.00	1.875	1.25	1.75	1.50
	1.00	1.625	1.75	2.00	2.00	1.75	1.25	2.25	1.875	1.375	2.25	1.625	1.875	2.25	1.50	1.50	1.625	2.50
Averages	1.391	1.708	1.867	2.188	2.088	1.996	1.654	1.979	1.908	1.483	1.979	2.004	1.729	2.083	1.758	1.479	1.792	1.767

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B^1	1.75	0.6889	B^1	2.625	1.0334	B^1	2.25	0.8858	B^1	2.25	0.8858	B^1	2.25	0.8858	B^1	2.25	0.8858
	B^2	2.625	1.0334	B^2	2.50	0.9842	B^2	2.50	0.9842	B^2	2.625	1.0334	B^2	2.50	0.9842	B^2	2.25	0.8858
	B^3	2.50	0.9842	B^3	2.50	0.9842	B^3	2.375	0.9350	B^3	2.50	0.9842	B^3	2.75	1.0826	B^3	2.75	1.0826
Highest		2.625	1.0334		2.625	1.0334		2.50	0.9842		2.625	1.0334		2.75	1.0826		2.75	1.0826
Minimum measurements.	B^1	1.00	0.3937	B^1	1.75	0.6889	B^1	1.25	0.4921	B^1	1.00	0.3937	B^1	1.25	0.4921	B^1	1.00	0.3937
	B^2	1.125	0.4429	B^2	1.50	0.5905	B^2	1.25	0.4921	B^2	1.50	0.5905	B^2	1.625	0.6397	B^2	1.50	0.5905
	B^3	1.125	0.4429	B^3	1.50	0.5905	B^3	1.50	0.5905	B^3	1.625	0.6397	B^3	1.25	0.4921	B^3	1.25	0.4921
Lowest		1.00	0.3937		1.50	0.5905		1.25	0.4921		1.00	0.3937		1.25	0.4921		1.00	0.3937
Average measurements	B^1	1.391	0.5476	B^1	2.188	0.8614	B^1	1.654	0.6511	B^1	1.483	0.5838	B^1	1.729	0.6807	B^1	1.479	0.5822
	B^2	1.708	0.6724	B^2	2.088	0.8220	B^2	1.979	0.7791	B^2	1.979	0.7791	B^2	2.083	0.8200	B^2	1.792	0.7055
	B^3	1.867	0.7350	B^3	1.996	0.7858	B^3	1.908	0.7511	B^3	2.004	0.7899	B^3	1.758	0.6921	B^3	1.767	0.6956
Average		1.655	0.6515		2.091	0.8232		1.847	0.7271		1.822	0.7173		1.857	0.7311		1.679	0.6610
Measurements above average		43			46			47			48			48			45	
Measurements below average		47			44			43			42			42			45	

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

B.—PHILADELPHIA GRADES.

Catalogue number of samples	299.			300.			301a.			301b.			302.			303.		
Length of fiber in crimp	2 inches.			2 inches.			2½ inches.			1⅝ inches.			2⅝ inches.			2½ inches.		
Number of crimps per inch	20.			20.			20.			20.			20.			20.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	1.75	1.875	2.00	1.50	2.00	2.375	1.75	2.375	1.75	1.25	2.00	1.75	1.875	1.50	2.50	1.625	2.00	1.625
	1.375	1.75	2.00	1.375	2.375	2.50	2.25	2.50	1.25	0.75	2.00	2.00	1.125	2.25	2.50	1.875	2.25	2.25
	1.25	2.125	1.75	1.375	1.75	2.00	1.75	1.75	1.75	0.875	2.00	2.25	1.50	2.00	1.875	2.00	1.50	1.75
	1.625	2.125	2.50	1.75	2.00	2.625	1.875	2.50	1.75	1.75	2.00	2.25	1.125	2.375	2.25	2.125	2.00	1.75
	1.25	2.00	1.50	1.50	2.00	2.25	3.50	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.75	1.75	1.875	1.875
	1.50	2.25	1.75	1.25	1.75	1.75	2.125	3.00	2.00	1.75	2.00	2.125	1.25	2.00	2.50	2.25	2.00	1.875
	1.25	2.25	2.00	1.75	2.00	1.75	1.875	2.75	1.75	1.75	2.25	2.50	2.00	2.125	2.00	2.00	2.25	2.00
	1.375	2.00	1.75	1.75	2.125	2.25	2.00	2.50	2.375	1.625	2.50	2.25	1.625	2.25	2.00	1.50	2.25	1.75
	1.25	1.25	1.50	1.25	2.00	1.875	1.75	2.00	2.50	1.50	2.25	2.00	1.50	1.875	2.50	2.00	2.00	1.75
	1.875	2.50	1.75	1.50	2.25	1.875	1.75	2.25	1.75	1.875	2.125	2.75	1.625	2.00	2.00	1.75	2.25	1.75
	1.375	1.625	1.75	1.25	1.875	1.75	2.00	2.25	2.25	1.50	2.25	2.00	2.25	2.25	1.875	2.00	2.125	1.875
	1.125	1.75	1.50	1.875	2.375	1.75	1.625	1.75	2.50	1.50	1.50	2.00	1.75	1.25	2.125	2.25	2.125	1.75
	1.625	2.00	1.50	1.50	1.75	2.25	1.25	2.125	1.75	1.25	2.00	1.875	1.75	1.625	2.00	1.75	2.25	1.50
	1.375	1.75	1.50	1.50	2.50	2.25	1.375	2.25	2.25	1.50	2.25	1.625	1.375	2.125	1.50	1.75	2.375	1.875
	1.625	1.75	1.875	1.25	1.50	2.25	1.375	2.75	2.00	1.25	2.50	2.125	1.75	1.75	2.375	1.875	2.00	1.75
	1.75	1.75	2.125	1.75	2.00	1.50	2.00	2.25	1.75	2.00	2.125	2.00	2.00	1.75	1.875	1.50	2.00	1.875
	1.25	1.75	1.875	1.75	2.00	1.75	1.25	2.125	1.50	1.25	2.00	2.125	1.25	1.875	2.125	2.00	2.00	1.375
	1.875	2.00	1.75	1.375	1.875	2.00	1.00	2.00	1.875	1.25	2.00	2.25	2.25	1.75	2.00	2.00	2.00	1.75
	1.50	1.50	1.75	1.75	2.25	1.875	2.25	2.25	1.50	1.50	1.75	2.125	2.25	1.875	1.875	1.875	2.125	1.50
	1.25	2.00	1.75	1.75	1.50	2.00	1.625	1.875	2.00	1.75	2.00	1.75	1.375	2.00	1.75	2.00	2.375	1.75
	1.00	1.75	1.75	1.25	1.875	2.00	1.25	2.00	2.00	1.75	2.00	2.25	2.00	2.25	2.25	1.625	2.25	1.875
	1.75	2.00	1.50	1.50	2.125	2.25	1.75	2.50	2.125	1.75	2.50	2.125	1.125	1.875	1.75	1.875	2.75	2.00
	1.25	1.75	1.75	1.25	2.125	2.25	1.25	2.50	2.375	1.75	2.00	2.00	2.00	1.75	2.25	1.75	2.25	2.25
	1.625	2.25	1.50	1.25	2.25	2.00	1.875	2.00	1.25	1.625	1.50	2.25	2.00	1.625	2.50	1.50	1.75	1.75
	2.00	2.50	2.00	1.75	2.00	1.75	1.50	3.00	1.375	1.75	2.00	2.25	1.75	2.00	2.00	1.875	1.875	2.375
	1.625	1.50	2.00	1.25	1.625	2.125	2.00	2.75	2.75	1.375	1.75	1.875	1.25	2.00	1.75	1.50	2.00	1.25
	1.75	2.00	1.625	1.25	2.00	1.75	1.875	1.75	2.25	1.375	1.625	2.375	1.625	2.25	2.25	2.00	1.875	2.125
	1.25	2.50	1.50	1.375	2.50	2.75	1.875	1.25	2.125	1.25	1.75	2.75	1.375	2.25	1.75	1.75	2.25	2.125
	1.50	1.75	2.25	1.25	1.875	1.875	1.375	1.75	1.75	1.875	1.25	2.25	2.25	2.75	2.00	1.75	2.75	1.875
	2.00	1.75	2.25	1.25	1.625	2.50	1.875	2.00	1.75	1.25	2.50	2.625	1.75	2.00	2.00	1.75	1.875	1.75
Averages	1.484	1.925	1.900	1.446	1.996	2.063	1.769	2.225	1.933	1.521	2.013	2.133	1.675	1.996	2.063	1.842	2.113	1.816

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements	B¹	2.00	0.7874	B¹	1.875	0.7380	B¹	3.50	1.3779	B¹	2.00	0.7874	B¹	2.25	0.8858	B¹	2.25	0.8858
	B²	2.50	0.9842	B²	2.50	0.9842	B²	3.00	1.1811	B²	2.50	0.9842	B²	2.75	1.0826	B²	2.75	1.0826
	B³	2.50	0.9842	B³	2.75	1.0826	B³	2.50	0.9842	B³	2.75	1.0826	B³	2.50	0.9842	B³	2.375	0.9350
Highest		2.50	0.9842		2.75	1.0826		3.50	1.3779		2.75	1.0826		2.75	1.0826		2.75	1.0826
Minimum measurements	B¹	1.00	0.3937	B¹	1.25	0.4921	B¹	1.00	0.3937	B¹	0.75	0.2953	B¹	1.125	0.4429	B¹	1.50	0.5905
	B²	1.25	0.4921	B²	1.50	0.5905	B²	1.25	0.4921	B²	1.25	0.4921	B²	1.25	0.4921	B²	1.50	0.5905
	B³	1.50	0.5905	B³	1.50	0.5905	B³	1.25	0.4921	B³	1.375	0.5413	B³	1.50	0.5905	B³	1.25	0.4921
Lowest		1.00	0.3937		1.25	0.4921		1.00	0.3937		0.75	0.2953		1.125	0.4429		1.25	0.4921
Average measurements	B¹	1.484	0.5842	B¹	1.446	0.5692	B¹	1.766	0.6952	B¹	1.521	0.5988	B¹	1.675	0.6594	B¹	1.842	0.7254
	B²	1.925	0.7578	B²	1.996	0.7859	B²	2.225	0.8751	B²	2.013	0.7925	B²	1.996	0.7858	B²	2.113	0.8318
	B³	1.800	0.7086	B³	2.063	0.8122	B³	1.933	0.7610	B³	2.133	0.8397	B³	2.063	0.8122	B³	1.816	0.7119
Average		1.736	0.6834		1.835	0.7224		1.975	0.7775		1.889	0.7436		1.911	0.7523		1.924	0.7574
Measurements above average		55			49			47			50			46			46	
Measurements below average		56			44			43			39			42			48	

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

B.—PHILADELPHIA GRADES.

	304.			305*a*.			305*b*.			306*a*.			306*b*.			306*c*.		
Catalogue number of samples																		
Length of fiber in crimp	2⅝ inches.			1¾ inches.			2¼ inches.			2⅜ inches.			2¾ inches.			2¼ inches.		
Number of crimps per inch	20.			22.			22.			22.			22.			22.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.375	1.75	2.00	1.75	2.00	2.50	1.50	2.125	2.00	2.00	2.125	2.00	1.50	1.50	1.375	1.625	1.50	1.625
	1.75	1.75	1.875	2.25	2.00	1.75	1.75	2.25	2.875	1.50	1.75	2.00	1.375	2.125	1.50	1.75	2.50	1.625
	1.875	2.00	1.75	2.00	1.875	1.75	1.75	2.00	2.50	1.75	2.00	2.625	2.00	2.00	1.50	1.875	1.625	1.50
	1.875	1.50	1.50	1.875	2.25	2.50	2.25	2.00	3.25	1.50	1.875	2.00	2.00	2.00	1.50	2.00	1.75	1.50
	1.75	2.00	2.00	1.875	2.00	2.25	1.50	1.75	2.50	1.625	1.625	2.00	1.50	2.25	1.25	1.625	1.50	1.25
	2.25	2.00	1.625	2.75	2.00	2.25	2.25	2.25	1.875	1.50	2.125	2.50	1.50	1.75	1.25	1.75	1.875	1.625
	1.25	1.75	1.75	2.50	2.25	2.00	1.50	2.00	2.50	2.00	1.75	2.00	1.875	1.375	1.75	1.75	1.75	1.625
	1.875	2.25	2.00	2.00	2.25	2.50	1.50	1.75	2.625	2.00	2.00	2.75	1.375	2.00	1.50	1.50	2.00	1.50
	2.00	2.25	1.875	1.75	2.25	2.25	2.25	2.00	2.25	2.125	2.125	2.00	1.125	2.50	1.50	1.875	2.00	1.875
	1.375	1.50	1.75	2.25	2.25	2.00	1.625	2.25	2.00	1.50	1.875	2.125	1.625	2.125	2.00	2.00	1.75	1.75
	1.875	1.75	1.75	2.00	2.25	1.75	1.75	1.75	2.00	2.50	1.75	1.75	1.25	1.50	1.50	1.625	1.75	1.50
	2.00	2.00	2.125	2.875	2.00	2.50	1.75	2.00	2.25	1.75	1.50	2.75	1.25	2.125	1.875	1.75	2.00	2.00
	1.50	1.875	1.875	2.75	2.375	2.25	1.625	2.375	3.00	1.625	2.00	2.375	1.625	1.625	1.25	2.50	2.00	1.625
	1.75	1.75	2.25	2.25	1.75	2.25	1.875	2.00	2.75	1.75	1.75	2.375	1.25	2.25	1.25	1.875	1.875	1.625
	1.875	2.00	2.00	2.00	2.00	2.25	1.75	1.875	1.50	2.375	1.625	2.50	1.375	1.75	1.50	1.50	1.75	1.75
	1.25	1.375	2.125	2.50	2.00	2.75	2.00	1.875	2.25	2.00	1.50	2.25	1.25	2.00	1.50	1.75	1.375	1.50
	1.75	2.50	2.00	2.25	2.25	2.00	2.125	2.00	2.75	2.00	2.125	2.00	1.25	2.00	1.50	1.375	1.75	1.75
	1.75	2.25	1.75	2.25	2.75	2.00	1.75	1.75	2.75	1.875	1.75	2.25	2.125	2.50	1.25	1.75	1.875	1.625
	1.875	1.75	1.875	2.25	1.875	2.00	1.75	2.25	2.50	2.00	1.75	2.75	1.625	2.00	1.75	1.625	1.75	1.75
	1.875	2.00	2.25	2.75	1.75	2.50	1.875	2.75	2.00	1.75	2.00	2.00	1.50	1.75	1.75	1.875	1.50	1.50
	1.75	2.25	2.00	2.00	2.50	2.375	2.00	1.50	3.00	2.125	1.50	2.00	1.50	1.75	2.00	2.00	1.50	1.25
	1.875	1.75	1.875	2.50	2.375	2.50	1.625	3.50	2.00	1.75	1.75	2.25	1.375	2.00	1.50	1.875	1.75	2.00
	1.50	1.375	2.50	2.50	1.75	1.625	1.75	2.75	2.25	2.50	2.375	1.75	1.50	1.875	1.50	2.125	1.75	1.50
	2.00	2.00	2.00	2.25	2.50	1.25	1.75	2.25	2.00	2.125	2.00	2.375	1.75	1.625	1.875	1.75	1.625	1.50
	2.00	2.00	1.25	2.50	1.75	2.00	1.75	2.00	2.00	1.75	2.00	2.50	2.25	2.25	2.25	2.25	2.25	1.50
	2.00	2.00	2.375	2.25	2.375	2.00	2.00	2.00	2.00	1.875	2.125	2.25	1.875	1.75	1.50	2.00	1.875	1.375
	1.75	2.25	2.375	2.25	2.00	2.50	1.75	2.00	2.25	2.25	1.875	2.125	1.375	1.875	1.625	1.375	1.375	1.50
	1.375	1.875	1.75	2.25	2.375	2.50	1.50	2.25	1.75	1.875	2.00	1.875	1.50	2.625	1.75	2.00	1.50	1.75
	2.25	1.50	2.375	2.50	1.875	2.25	1.50	2.25	2.50	2.00	2.125	1.875	1.875	2.125	2.00	1.75	1.875	1.25
	1.75	2.25	2.125	2.00	2.00	2.25	2.00	2.25	1.75	1.875	2.50	2.75	1.375	2.00	1.50	2.125	1.375	1.875
Averages	1.971	1.908	1.958	2.263	2.121	2.175	1.792	2.125	2.321	1.909	1.908	2.225	1.559	1.967	1.592	1.821	1.758	1.600

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements	B¹	2.375	0.9350	B¹	2.875	1.1318	B¹	2.25	0.8858	B¹	2.50	0.9842	B¹	2.25	0.8858	B¹	2.50	0.9842
	B²	2.50	0.9842	B²	2.75	1.0826	B²	3.50	1.3779	B²	2.50	0.0842	B²	2.625	1.0326	B²	2.50	0.9842
	B³	2.50	0.9842	B³	2.75	1.0826	B³	3.25	1.2795	B³	2.75	1.0826	B³	2.25	0.8858	B³	2.00	0.7874
Highest		2.50	0.9842		2.875	1.1318		3.50	1.3779		2.75	1.0826		2.625	1.0326		2.50	9.9842
Minimum measurements	B¹	1.25	0.4921	B¹	1.75	0.6889	B¹	1.50	0.5905	B¹	1.50	0.5905	B¹	1.125	0.4429	B¹	1.375	0.5413
	B²	1.375	0.5413	B²	1.75	0.6889	B²	1.50	0.5905	B²	1.50	0.5905	B²	1.375	0.5413	B²	1.375	0.5413
	B³	1.25	0.4921	B³	1.25	0.4921	B³	1.50	0.5905	B³	1.75	0.6889	B³	1.25	0.4921	B³	1.25	0.4921
Lowest		1.25	0.4921		1.25	0.4291		1.50	0.5905		1.50	0.5905		1.125	0.4429		1.25	0.4921
Average measurements	B¹	1.971	0.7759	B¹	2.263	0.8909	B¹	1.892	0.7055	B¹	1.909	0.7515	B¹	1.559	0.6137	B¹	1.821	0.7169
	B²	1.908	0.7511	B²	2.121	0.8350	B²	2.125	0.8366	B²	1.908	0.7511	B²	1.967	0.7744	B²	1.758	0.6921
	B³	1.958	0.7708	B³	2.175	0.8562	B³	2.321	0.9137	B³	2.225	0.8759	B³	1.592	0.6267	B³	1.600	0.6299
Average		1.946	0.7661		2.186	0.8606		2.079	0.8185		2.014	0.7929		1.706	0.6716		1.726	0.6795
Measurements above average		40			52			35			32			42			51	
Measurements below average		50			38			55			58			48			39	

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

B.—PHILADELPHIA GRADES.

	307a.			307b.			307c.			307d.			307e.			308a.		
Catalogue number of samples																		
Length of fiber in crimp	1½ inches.			1½ inches.			1½ inches.			1½ inches.			3½ inches.			3 inches.		
Number of crimps per inch	20.			20.			20.			20.			20.			20.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	1.625	2.50	2.75	1.75	2.375	2.00	2.25	2.25	1.875	1.75	2.125	1.75	1.75	2.00	2.50	2.25	2.50	3.25
	1.50	2.50	1.50	2.375	1.75	2.125	1.75	2.75	1.875	1.50	1.625	1.75	1.75	2.25	2.25	1.75	2.375	2.50
	1.75	2.50	1.625	1.75	2.00	1.75	1.75	1.75	1.875	1.75	1.75	1.75	1.50	1.50	2.00	2.25	2.50	2.25
	1.50	2.25	2.50	2.00	2.50	2.875	1.75	2.50	2.125	1.50	1.75	2.00	1.50	2.00	1.75	1.875	3.50	3.00
	2.00	2.00	2.375	2.00	2.50	2.25	1.75	2.25	1.875	2.00	1.875	2.00	1.875	1.50	2.00	2.25	3.25	2.375
	1.50	1.75	2.75	1.875	2.00	2.125	2.00	2.00	1.875	2.375	1.875	1.875	1.375	1.875	2.25	1.75	2.375	2.50
	1.875	2.00	2.375	2.75	2.00	2.00	2.125	2.375	1.75	2.125	2.00	1.875	1.75	1.50	2.25	2.375	2.75	2.50
	1.50	2.25	2.75	2.25	2.25	2.125	1.25	2.75	2.25	1.25	1.75	2.00	1.25	1.75	2.25	2.00	2.50	3.25
	1.625	3.00	2.125	2.25	2.00	2.25	2.50	2.25	2.25	1.75	2.25	1.75	1.875	1.875	1.75	2.00	2.50	2.75
	1.625	2.625	2.50	1.875	2.125	2.375	2.00	2.00	1.75	2.00	2.00	2.50	1.75	1.75	1.75	2.125	3.00	2.00
	1.50	2.625	2.25	2.00	2.375	2.250	2.50	2.50	1.625	1.625	2.00	2.00	1.50	2.00	2.00	2.00	2.50	2.75
	1.75	2.75	2.00	2.25	2.50	2.25	2.00	2.25	2.25	1.75	2.00	2.00	2.50	1.625	1.75	2.00	2.50	2.25
	2.25	2.00	2.00	2.00	1.875	2.75	2.125	2.625	2.375	1.875	2.25	2.125	1.375	1.75	2.50	2.25	2.75	2.25
	1.75	2.25	2.25	2.00	2.00	2.00	2.25	2.25	1.25	1.50	2.00	1.625	2.00	2.25	1.75	1.875	2.75	2.375
	1.50	1.50	2.00	1.75	2.00	1.00	2.25	2.50	1.50	1.75	2.125	1.75	2.25	1.75	1.75	2.125	2.375	2.125
	1.75	2.125	3.00	1.75	2.125	2.375	2.375	2.00	1.875	2.00	1.75	1.75	1.50	2.50	2.875	1.875	2.75	2.75
	2.00	2.50	2.75	2.25	1.75	2.125	2.25	2.25	1.375	2.00	1.75	2.75	2.25	3.00	1.50	2.375	2.50	1.50
	2.125	1.875	2.00	2.00	1.75	2.50	2.00	2.125	1.75	1.50	1.75	1.75	1.625	1.875	2.00	2.125	2.50	2.25
	1.75	2.125	1.875	2.25	2.125	2.25	1.50	2.50	2.375	2.00	1.50	2.00	1.875	1.75	2.50	2.00	2.50	2.00
	1.50	2.00	2.00	1.75	1.875	2.25	2.25	2.00	2.25	2.00	1.75	1.50	1.375	2.375	1.875	2.00	2.50	2.75
	1.50	2.75	1.75	2.00	2.50	2.50	2.375	1.75	2.125	1.75	2.00	1.75	1.625	1.75	2.25	2.375	3.00	2.875
	1.75	2.00	2.00	2.00	2.625	1.875	1.75	2.00	2.00	2.25	2.00	2.00	1.625	1.75	2.25	2.125	3.00	3.00
	1.75	2.00	2.00	1.75	2.375	1.75	2.625	2.625	1.50	1.75	2.00	1.50	1.75	2.125	1.875	2.00	2.75	2.125
	1.75	1.75	1.625	1.75	2.00	2.25	2.75	2.25	2.00	1.50	1.75	1.875	1.75	2.00	2.125	1.875	2.50	2.25
	2.25	2.00	2.25	2.25	2.25	1.875	2.75	1.875	1.50	1.50	1.75	2.00	1.625	2.25	2.00	2.00	2.75	3.00
	2.00	2.00	3.25	1.50	1.75	1.50	2.50	1.75	1.75	1.625	1.625	1.75	1.75	2.00	2.00	1.875	2.25	2.50
	2.00	1.75	2.00	1.875	1.625	2.00	2.00	1.50	1.875	1.75	1.75	1.75	1.25	2.00	2.00	2.50	3.00	1.75
	1.625	1.25	2.125	2.00	2.10	2.375	2.25	2.25	2.00	1.75	1.25	2.50	1.625	1.75	2.00	2.50	3.00	2.25
	1.50	2.25	1.75	2.00	2.50	2.00	1.75	1.50	2.50	1.75	2.00	2.25	1.50	1.75	1.75	2.375	2.25	2.00
	1.876	2.625	1.88	1.75	2.50	2.80	1.00	2.00	2.25	1.50	1.75	2.125	1.75	1.75	1.75	2.125	3.125	1.75
Averages	1.745	2.183	2.183	1.992	2.133	2.150	2.142	2.133	1.921	1.771	1.858	1.933	1.679	1.983	2.000	2.150	2.667	2.379

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements	B¹	3.25	0.8858	B¹	2.75	1.0826	B¹	2.75	1.0826	B¹	2.375	0.9350	B¹	2.50	0.9842	B¹	2.50	0.9842
	B²	3.00	1.1811	B²	2.625	1.0326	B²	2.75	1.0826	B²	3.25	0.8858	B²	3.00	1.1811	B²	3.50	1.3779
	B³	3.25	1.2795	B³	2.875	1.1318	B³	2.50	0.9842	B³	2.50	0.9842	B³	2.875	1.1318	B³	3.25	1.2795
Highest	.....	3.25	1.2795	.....	2.875	1.1318	.....	2.75	1.0826	.....	2.50	0.9842	.....	3.00	1.1811	.....	3.50	1.3779
Minimum measurements	B¹	1.50	0.5905	B¹	1.50	0.5905	B¹	1.50	0.5905	B¹	1.25	0.4921	B¹	1.25	0.4921	B¹	1.75	0.6889
	B²	1.25	0.4921	B²	1.625	0.6397	B²	1.50	0.5905	B²	1.25	0.4921	B²	1.50	0.5905	B²	2.00	0.7874
	B³	1.50	0.5905	B³	1.00	0.3937	B³	1.25	0.4921	B³	1.50	0.5905	B³	1.50	0.5905	B³	1.50	0.5905
Lowest	.....	1.25	0.4921	.....	1.00	0.3937	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.50	0.5905
Average measurements	B¹	2.746	0.6874	B¹	1.992	0.7842	B¹	2.142	0.8433	B¹	1.771	0.6972	B¹	1.691	0.6657	B¹	2.150	0.8464
	B²	2.183	0.8594	B²	2.133	0.8397	B²	2.133	0.8397	B²	1.858	0.7314	B²	1.933	0.7610	B²	2.667	0.0490
	B³	2.183	0.8594	B³	2.150	0.8464	B³	1.921	0.7562	B³	1.933	0.7610	B³	2.008	0.7905	B³	2.379	0.9366
Average	.....	2.037	0.8019	.....	2.092	0.8236	.....	2.059	0.8106	.....	1.854	0.7299	.....	1.873	0.7374	.....	2.399	0.9444
Measurements above average	.....	35		.....	42		.....	43		.....	42		.....	43		.....	39	
Measurements below average	.....	55		.....	48		.....	47		.....	48		.....	47		.....	51	

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

B.—PHILADELPHIA GRADES.

	308*b*.			308*c*.			308*d*.			309*a*.			309*b*.			310*a*.		
Catalogue number of samples																		
Length of fiber in crimp	3½ inches.			2¾ inches.			3¾ inches.			3⅜ inches.			3½ inches.			5 inches.		
Number of crimps per inch	14.			14.			14.			14.			14.			——		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B²,	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.25	2.50	2.25	2.00	2.75	1.50	2.00	3.00	4.00	2.00	3.25	1.75	1.75	3.00	2.50	2.625	3.50	4.75
	3.00	2.25	2.00	1.625	2.00	1.625	1.75	2.75	3.00	1.50	2.50	2.50	2.00	3.25	3.25	3.25	3.25	3.25
	2.75	2.50	2.125	2.375	2.375	1.50	2.25	2.50	3.00	1.50	2.125	3.125	2.25	2.50	2.25	3.50	3.00	3.50
	2.25	2.50	2.625	2.25	2.00	2.00	1.875	2.75	2.25	2.50	2.25	3.00	3.25	2.125	3.25	2.75	3.50	3.25
	2.375	1.50	3.00	3.00	2.00	2.00	1.75	2.50	2.00	2.125	3.375	3.50	2.50	3.00	2.25	2.75	3.50	3.25
	2.25	2.00	2.375	1.75	2.25	2.75	2.00	2.75	2.50	1.50	3.75	2.75	1.75	2.125	3.00	4.00	2.625	4.625
	2.375	2.00	2.25	1.875	2.75	2.50	1.75	3.00	3.25	2.00	3.00	2.75	1.625	3.00	3.25	3.25	3.00	3.75
	2.75	2.50	2.75	2.00	2.75	2.50	2.75	3.00	2.00	1.75	2.50	2.25	2.00	3.00	2.75	2.75	4.00	2.25
	2.25	2.875	2.25	2.50	2.375	2.625	1.50	3.00	2.50	1.875	2.25	2.625	1.875	2.25	2.25	3.50	3.50	4.125
	1.75	2.50	2.50	2.00	3.00	2.75	2.00	2.875	2.50	1.875	2.875	2.25	1.75	2.75	2.50	3.375	3.25	3.50
	1.75	3.00	2.875	1.50	3.50	2.25	2.25	2.75	3.25	1.75	2.50	2.00	1.625	1.75	2.25	2.75	2.875	3.25
	2.25	2.25	3.00	1.75	2.625	2.50	2.75	2.625	3.25	2.00	3.00	2.375	2.75	3.00	2.50	4.00	3.25	3.50
	2.375	2.50	2.25	1.25	2.75	2.25	2.50	2.75	2.50	2.00	2.25	2.00	1.75	3.25	2.75	3.75	4.00	4.375
	2.875	2.75	2.50	1.625	2.50	1.875	2.125	2.25	3.375	2.00	2.50	2.50	1.75	2.50	2.50	3.875	3.25	4.00
	2.25	3.00	2.50	1.50	2.75	2.125	2.25	2.875	2.75	1.75	1.50	1.50	1.75	2.75	2.75	3.75	3.50	4.50
	2.75	2.25	2.75	1.50	2.50	1.75	2.25	2.75	3.75	1.75	2.375	2.375	1.75	2.50	3.375	4.00	2.25	3.25
	2.125	2.75	2.00	2.00	2.75	2.25	1.75	3.25	2.25	2.25	3.00	1.75	1.75	2.75	2.50	3.25	3.75	3.50
	2.625	2.625	2.75	2.25	2.75	2.50	1.50	2.25	2.375	1.75	2.75	2.875	1.875	2.25	2.75	3.75	3.25	3.375
	2.75	2.50	2.00	2.00	2.75	2.00	2.00	2.75	2.50	1.875	2.25	3.25	1.75	3.75	2.50	3.25	3.375	3.375
	2.25	3.00	2.50	2.00	2.25	2.50	2.125	3.125	2.50	2.375	3.25	2.50	1.875	3.00	3.25	2.00	5.00	3.25
	2.25	1.75	2.00	2.25	3.00	2.50	1.875	2.75	3.125	2.125	4.00	2.00	1.00	3.00	3.25	2.25	3.00	3.25
	2.375	2.25	2.25	2.75	2.00	2.00	1.75	2.50	2.75	2.00	2.75	2.75	1.50	2.75	2.625	2.875	3.25	3.25
	1.75	3.00	2.125	1.75	2.375	2.125	2.25	2.875	3.00	2.25	2.375	2.25	1.875	2.25	2.00	2.875	2.75	4.50
	2.75	2.75	2.25	2.375	2.50	3.50	2.125	3.25	3.125	2.00	2.50	3.00	2.00	2.75	2.50	4.25	3.75	3.75
	1.875	2.50	3.00	1.25	2.50	1.50	1.75	2.25	3.00	2.00	2.25	2.75	1.875	2.50	2.75	4.75	3.25	2.625
	2.50	3.25	2.75	1.25	3.50	3.125	1.25	2.375	2.50	2.00	2.625	2.00	1.625	3.25	3.00	3.50	3.875	3.875
	2.75	2.75	2.75	1.25	2.25	2.50	1.625	3.25	2.50	1.625	2.50	2.50	1.75	2.25	1.50	2.75	3.50	3.75
	2.25	3.00	2.25	1.50	2.00	2.125	1.25	2.75	3.25	1.75	2.375	2.00	1.50	2.25	2.75	3.50	4.50	3.75
	2.25	3.00	2.50	2.00	2.50	2.50	1.75	2.75	1.75	2.125	2.25	2.125	1.75	2.25	2.25	2.875	3.25	4.50
	2.25	2.50	2.75	2.375	3.00	2.25	1.75	3.00	3.25	2.25	2.625	3.00	1.75	3.00	3.125	3.875	3.50	3.375
Averages	2.367	2.550	2.463	1.917	2.567	2.263	1.950	2.775	2.792	1.942	2.658	2.467	1.867	2.692	2.671	3.321	3.404	3.675

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	3.00	1.1811	B¹	3.00	1.1811	B¹	2.75	1.0826	B¹	2.50	0.9842	B¹	3.25	1.2795	B¹	4.75	1.8700
	B²	3.25	1.2795	B²	3.50	1.3779	B²	3.25	1.2795	B²	4.00	1.5748	B²	3.75	1.4763	B²	5.00	1.9685
	B³	3.00	1.1811	B³	3.50	1.3779	B³	4.00	1.5748	B³	3.50	1.3779	B³	3.375	1.3287	B³	4.75	1.8700
Highest		3.25	1.2795		3.50	1.3779		4.00	1.5748		4.00	1.5748		3.75	1.4763		5.00	1.9685
Minimum measurements.	B¹	1.75	0.6889	B¹	1.25	0.4921	B¹	1.25	0.4921	B¹	1.50	0.5905	B¹	1.00	0.3937	B¹	2.00	0.7874
	B²	1.50	0.5905	B²	2.00	0.7874	B²	2.25	0.8858	B²	1.50	0.5905	B²	1.75	0.6889	B²	2.25	0.8858
	B³	2.00	0.7874	B³	1.50	0.5905	B³	1.75	0.6889	B³	1.50	0.5905	B³	1.50	0.5905	B³	2.25	0.8858
Lowest		5.50	0.5905		1.25	0.4921		1.25	0.4921		1.50	0.5905		1.00	0.3937		2.00	0.7874
Average measurements.	B¹	2.367	0.9318	B¹	1.917	0.7547	B¹	1.950	0.7677	B¹	1.942	0.7645	B¹	1.867	0.7350	B¹	3.321	1.3074
	B²	2.550	1.0039	B²	2.567	1.0106	B²	2.775	1.0925	B²	2.658	1.0464	B²	2.692	1.0598	B²	3.404	1.3401
	B³	2.463	0.9696	B³	2.263	0.8909	B³	2.792	1.0992	B³	2.467	0.9712	B³	2.671	1.0575	B³	3.675	1.4468
Average		2.460	0.9685		2.249	0.8854		2.506	0.9866		2.356	0.9275		2.410	0.9488		3.467	1.3619
Measurements above average			48			51			42			41			47			45
Measurements below average			42			39			[illegible]			40			[illegible]			45

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

B.—PHILADELPHIA GRADES.

	310b.			310c.			311a.			311b.			311c.			311d.		
Catalogue number of samples																		
Length of fiber in crimp	6½ inches.			5 inches.			2⅝ inches.			2⅝ inches.			2⅝ inches.			3⅛ inches.		
Number of crimps per inch	——			——			14.			14.			14.			14.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	3.125	3.50	2.25	2.875	4.25	2.75	1.875	2.875	3.25	2.75	2.875	2.75	2.875	2.125	3.25	2.375	2.25	2.125
	4.00	2.875	3.00	3.00	4.75	2.75	2.00	2.00	4.25	3.00	2.625	3.00	2.00	3.25	2.625	2.50	2.75	1.875
	3.50	3.875	3.75	2.75	3.00	3.50	1.75	1.875	2.375	3.00	3.00	2.875	2.75	3.50	2.375	2.50	1.50	1.50
	3.25	5.00	4.00	2.625	3.75	4.75	2.00	2.875	1.875	2.50	3.25	3.125	2.875	3.50	2.875	1.875	2.375	3.00
	3.50	4.50	3.75	3.50	4.50	4.25	1.75	2.625	2.00	2.75	2.25	2.625	2.00	2.00	2.75	1.875	2.875	1.00
	2.875	4.25	4.125	3.50	2.75	4.00	1.875	2.75	2.00	2.50	2.75	3.00	1.875	2.50	3.00	2.25	2.25	1.50
	4.50	2.75	3.00	3.00	5.00	4.00	1.875	2.625	2.00	2.75	2.25	2.125	1.625	2.25	2.75	2.50	2.75	2.625
	3.75	3.625	4.00	4.00	4.50	3.75	2.00	2.875	3.125	3.00	2.75	2.75	2.125	3.00	2.75	2.50	2.25	3.00
	2.875	4.50	3.25	3.75	4.00	4.75	2.00	2.00	2.50	2.75	2.25	3.125	1.625	3.25	2.50	2.75	2.125	1.00
	3.00	4.375	4.25	3.00	4.25	5.25	1.75	2.50	2.25	2.75	2.75	3.00	2.75	2.625	3.00	2.125	1.75	2.00
	3.25	4.00	3.50	3.625	4.00	3.50	2.00	2.50	1.625	2.75	2.125	2.375	1.75	3.00	3.75	2.00	1.75	3.00
	4.25	2.00	4.75	2.00	3.50	3.50	2.25	2.75	2.625	2.50	3.75	3.00	1.75	2.75	3.25	2.50	1.625	2.50
	4.00	3.00	2.75	2.75	3.00	3.00	2.00	2.625	1.50	2.875	3.875	3.00	1.625	2.00	3.00	2.50	2.00	2.25
	3.75	3.50	3.25	3.50	2.50	4.375	2.25	3.00	2.125	3.00	2.625	2.875	2.25	3.00	2.25	1.875	2.125	2.50
	1.875	2.00	3.50	1.75	4.50	3.00	1.75	3.00	2.125	2.125	2.875	2.125	1.25	3.25	2.00	2.625	1.25	2.50
	2.125	3.375	4.25	1.50	3.25	1.50	2.00	2.75	2.00	2.75	2.00	1.625	1.875	3.00	2.875	2.625	1.375	2.50
	3.00	3.25	4.50	3.75	4.75	3.00	2.00	2.50	2.75	2.875	3.25	2.75	2.125	3.75	2.625	2.125	2.00	1.25
	2.125	3.25	3.00	3.375	3.00	5.50	2.00	3.375	2.875	3.25	2.75	2.25	3.125	2.50	3.50	2.375	2.00	2.375
	2.125	2.75	3.25	3.625	3.25	3.75	1.875	3.25	1.875	2.00	1.75	3.50	2.75	2.00	2.875	2.00	2.375	2.00
	2.25	2.75	2.75	3.50	3.00	4.25	2.00	3.625	2.75	2.625	3.125	2.75	2.125	3.25	2.75	2.125	2.625	2.25
	2.125	2.875	3.125	3.00	6.00	4.25	2.125	2.00	3.375	2.00	3.00	2.875	2.00	2.50	2.75	2.125	1.625	1.375
	3.00	2.50	3.75	3.00	3.75	4.50	1.75	2.375	2.375	2.375	2.00	2.75	2.50	3.25	2.625	2.25	1.50	2.50
	3.375	4.125	4.25	3.75	3.25	4.25	1.25	2.375	2.375	3.25	2.50	2.375	2.125	2.625	3.50	2.00	1.25	2.50
	2.75	2.75	4.875	4.00	5.50	4.375	2.25	2.25	2.75	1.625	2.75	2.25	2.25	2.25	3.00	2.50	1.00	1.50
	3.375	2.75	3.00	3.00	4.00	4.00	1.75	3.00	1.875	2.25	3.375	3.75	1.75	3.375	3.50	2.00	1.50	2.50
	3.75	3.25	4.25	3.375	4.50	4.00	2.00	3.00	2.25	2.25	2.25	3.625	3.00	2.50	2.875	2.75	1.625	2.50
	4.50	4.00	3.25	3.25	4.25	4.50	1.875	2.50	3.25	3.25	3.50	2.50	2.00	2.75	2.375	2.00	1.75	2.00
	3.000	3.625	5.375	3.00	3.25	4.50	3.75	2.25	1.75	3.00	2.75	2.25	2.25	3.75	2.75	2.50	1.50	2.50
	2.50	4.375	3.75	2.875	3.00	3.75	2.375	2.75	2.75	3.00	2.50	3.375	1.75	2.75	2.75	2.125	1.75	1.50
	2.25	3.50	3.75	3.75	3.50	3.875	2.75	2.75	2.00	2.50	2.50	2.75	3.125	2.75	2.75	1.25	1.75	3.00
Averages	3.133	3.467	3.708	3.133	3.875	3.854	2.029	2.629	2.429	2.650	2.783	2.771	2.196	2.833	2.829	2.250	1.908	2.071

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	4.50	1.7716	B¹	4.00	1.5748	B¹	3.75	1.4763	B¹	3.25	1.2795	B¹	3.125	1.2303	B¹	2.75	1.0826
	B²	5.00	1.9685	B²	6.00	2.3622	B²	3.625	1.4271	B²	3.75	1.4763	B²	3.75	1.4763	B²	2.875	1.1318
	B³	5.375	2.1161	B³	5.50	2.1653	B³	4.25	1.6732	B³	3.75	1.4763	B³	3.75	1.4763	B³	3.00	1.1811
Highest		5.375	2.1161		6.00	2.3622		4.25	1.6732		3.75	1.4763		3.75	1.4763		3.00	1.1811
Minimum measurements.	B¹	1.875	0.7380	B¹	1.50	0.5905	B¹	1.25	0.4921	B¹	1.625	0.6397	B¹	1.25	0.4921	B¹	1.25	0.4921
	B²	2.375	0.9350	B²	2.75	1.0826	B²	1.875	0.7380	B²	1.75	0.6890	B²	2.00	0.7874	B²	1.25	0.4921
	B³	2.25	0.8858	B³	1.50	0.5905	B³	1.50	0.5905	B²	1.625	0.6397	B³	2.00	0.7874	B³	1.00	0.3937
Lowest		1.875	0.7380		1.50	0.5905		1.25	0.4921		1.625	0.6397		1.25	0.4921		1.00	0.3937
Average measurements.	B¹	3.133	1.2334	B¹	3.134	1.2338	B¹	2.029	0.7988	B¹	2.650	1.0433	B¹	2.196	0.8645	B¹	2.250	0.8858
	B²	3.467	1.3649	B²	3.875	1.5255	B²	2.629	1.0350	B²	2.783	1.0956	B²	2.833	1.1153	B²	1.908	0.7511
	B³	3.708	1.4598	B³	3.854	1.5173	B³	2.429	0.9562	B³	2.771	1.0909	B³	2.829	1.1137	B³	2.071	0.8153
Average		3.436	1.3527		3.621	1.4255		2.362	0.9299		2.735	1.0767		2.619	1.0311		2.076	0.8173
Measurements above average			44			42			41			56			51			47
Measurements below average			46			48			49			34			39			43

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

B.—PHILADELPHIA GRADES.

	312.			313*a*.			313*b*.			313*c*.			314*a*.			314*b*.		
Catalogue number of samples																		
Length of fiber in crimp	2¾ inches.			2⅝ inches.			3 inches.			3¼ inches.			1⅞ inches.			2¾ inches.		
Number of crimps per inch	——			10.			10.			10.			20.			20.		
Number of section	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.
Actual measurement in centimillimeters.	1.25	2.625	3.875	2.125	3.00	3.50	1.75	4.00	2.75	2.00	3.75	2.875	2.50	2.75	2.00	1.375	1.75	2.125
	1.375	2.75	4.25	1.75	3.875	2.00	2.00	3.00	2.875	1.75	3.125	2.00	2.00	2.125	2.50	1.625	2.125	1.875
	1.50	3.50	2.75	2.75	3.25	2.50	1.75	3.00	2.50	2.625	2.50	2.75	1.875	2.125	1.75	1.50	2.125	1.50
	1.25	2.50	2.875	1.75	4.00	2.50	1.875	2.50	2.75	2.50	2.50	2.625	1.50	2.25	2.125	1.50	1.75	1.75
	2.25	2.00	2.00	2.50	2.00	2.25	2.375	3.375	2.875	1.50	2.00	2.125	2.00	2.375	2.00	1.75	1.75	1.75
	3.00	3.25	2.75	1.75	3.00	2.25	2.00	3.625	3.125	1.75	3.00	2.75	2.50	2.375	2.75	1.50	2.25	1.50
	3.50	3.25	2.00	3.25	2.00	3.25	2.00	2.625	2.625	1.625	2.375	1.75	1.50	2.125	2.75	1.75	1.75	1.875
	3.25	2.75	2.25	2.625	2.00	2.125	2.375	3.25	3.25	2.875	3.25	2.25	2.25	3.125	2.375	1.75	2.00	1.75
	1.25	3.75	4.25	1.75	1.875	2.50	2.50	2.875	2.50	1.875	2.50	2.50	1.875	3.00	2.00	1.75	2.00	1.75
	1.50	3.75	1.875	1.75	2.50	3.375	1.50	3.00	3.00	1.75	2.00	2.25	1.375	1.75	2.00	1.00	2.25	1.75
	2.25	3.625	2.625	1.50	2.25	2.25	1.50	2.00	2.75	1.875	2.25	2.25	1.75	1.375	3.00	1.75	1.75	2.00
	1.75	2.00	2.50	1.75	2.75	3.50	2.50	2.375	2.875	2.00	2.25	2.50	1.75	2.75	2.75	1.75	1.50	1.75
	2.50	3.625	3.00	2.00	2.375	2.375	2.875	2.375	2.75	1.75	2.25	2.75	1.50	2.00	2.50	1.25	1.75	1.75
	1.875	3.25	3.00	2.00	2.00	2.00	2.625	2.75	2.50	1.875	3.00	2.50	1.75	2.25	1.875	2.00	1.75	1.50
	2.25	2.25	3.00	2.25	3.75	2.00	2.50	3.125	3.375	2.50	2.25	2.50	1.50	2.75	2.25	1.50	2.25	1.75
	1.50	3.25	2.375	2.00	2.75	2.50	2.375	3.125	3.00	2.25	2.875	1.875	1.875	2.25	2.75	1.75	2.00	1.50
	1.25	2.75	2.50	2.375	3.50	2.75	2.25	3.00	2.75	2.00	2.50	3.00	1.625	2.00	2.625	1.50	2.25	1.625
	1.375	2.25	3.25	1.50	3.75	3.50	2.375	3.00	3.00	2.375	2.25	2.625	2.00	2.00	2.375	1.50	2.375	2.00
	2.125	3.25	2.375	1.375	2.375	3.25	2.50	2.50	2.625	2.00	1.75	2.25	2.25	2.75	2.50	1.375	2.125	2.375
	2.50	3.25	2.50	1.25	3.50	2.125	2.00	2.00	3.00	2.00	3.00	2.00	2.00	1.875	2.50	1.625	1.875	1.50
	1.75	2.25	4.00	2.00	3.125	3.00	2.25	3.25	2.875	2.125	1.75	2.375	2.00	2.25	2.00	1.25	1.75	2.00
	1.75	3.50	2.00	1.75	2.875	3.00	1.75	2.50	3.25	2.50	2.375	2.375	2.25	2.25	2.25	1.50	2.26	2.00
	2.25	2.25	2.00	2.00	4.25	3.75	2.00	2.75	3.375	2.00	2.75	2.50	1.25	1.875	2.25	1.50	2.00	1.75
	1.875	2.50	3.25	1.875	3.00	3.50	1.75	2.25	2.375	2.00	2.875	2.375	1.375	2.75	2.625	1.50	2.125	1.75
	2.00	3.50	2.00	2.25	3.00	2.375	2.125	2.75	3.00	3.00	2.50	2.50	2.00	1.75	2.25	1.50	1.50	1.50
	1.75	3.875	3.50	2.00	3.125	3.00	2.50	2.175	3.125	1.75	3.00	2.625	2.00	2.125	2.00	1.75	1.375	1.75
	2.50	4.00	2.50	1.875	2.75	2.75	2.25	2.00	2.50	1.75	3.25	2.625	1.875	2.50	2.50	1.50	2.00	1.50
	2.25	2.625	2.125	2.00	3.25	2.875	2.125	2.75	3.125	2.25	3.00	3.00	1.50	2.25	2.25	1.50	1.75	2.00
	2.25	2.875	2.25	1.75	3.375	3.25	2.00	2.75	3.50	2.00	2.00	2.75	2.25	2.625	3.00	1.375	1.50	1.75
	1.75	2.375	2.00	1.75	3.25	2.50	3.25	2.25	3.00	2.25	2.50	2.625	2.25	1.75	2.75	1.50	1.50	1.875
Averages	1.988	2.979	2.721	1.942	2.950	2.750	2.188	2.763	2.900	2.083	2.579	2.463	1.871	1.771	1.875	1.546	1.904	1.776

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements	B^1	3.50	1.3779	B^1	2.625	1.0334	B^1	3.25	1.2795	B^1	3.00	1.1811	B^1	2.50	0.9842	B^1	2.00	0.7874
	B^2	4.00	1.5748	B^2	4.25	1.6732	B^2	4.00	1.5748	B^2	3.75	1.4763	B^2	3.125	1.2303	B^2	2.375	0.9350
	B^3	4.25	1.6732	B^3	3.75	1.4763	B^3	3.50	1.3779	B^3	3.00	1.1811	B^3	3.00	1.1811	B^3	2.375	0.9350
Highest	.....	4.25	1.6732	.....	4.25	1.6732	.....	4.00	1.5748	.....	3.75	1.4763	.....	3.125	1.2303	.....	2.375	0.9350
Minimum measurements	B^1	1.25	0.4921	B^1	1.25	0.4921	B^1	1.50	0.5905	B^1	1.625	0.6397	B^1	1.25	0.4921	B^1	1.25	0.4921
	B^2	2.00	0.7874	B^2	1.875	0.7380	B^2	2.00	0.7874	B^2	1.75	0.6889	B^2	1.375	0.5413	B^2	1.375	0.5413
	B^3	1.875	0.7380	B^3	2.00	0.7874	B^3	2.50	0.9842	B^3	1.75	0.6889	B^3	1.75	0.6889	B^3	1.50	0.5905
Lowest	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.50	0.5905	.....	1.625	0.6397	.....	1.25	0.4921	.....	1.25	0.4921
Average measurements	B^1	1.988	0.7826	B^1	1.943	0.7645	B^1	2.188	0.8614	B^1	2.083	0.8200	B^1	1.871	0.7366	B^1	1.546	0.6286
	B^2	2.979	1.1728	B^2	2.950	1.1614	B^2	2.763	1.0877	B^2	2.579	1.0153	B^2	1.771	0.6972	B^2	1.904	0.7496
	B^3	2.721	1.0712	B^3	2.750	1.0826	B^3	2.900	1.1417	B^3	2.463	0.9606	B^3	1.875	0.7380	B^3	1.775	0.6988
Average	.....	2.563	1.0090	.....	2.547	1.0027	.....	2.617	1.0303	.....	2.376	0.9350	.....	1.839	0.7240	.....	1.742	0.6858
Measurements above average	.....	38		.....	38		.....	47		.....	53		.....	73		.....	46	
Measurements below average	.....	52		.....	52		.....	43		.....	53		.....	17		.....	41	

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

B.—PHILADELPHIA GRADES.

	315a.			315b.			316.			317a.			317b.			317c.		
Catalogue number of samples																		
Length of fiber in crimp	1½ inches.			1½ inches.			3½ inches.			3 inches.			2½ inches.			2½ inches.		
Number of crimps per inch	——			——			[illegible]			20.			20.			20.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.50	[illegible]	2.625	[illegible]	3.00	[illegible]	1.375	2.875	[illegible]	2.75	[illegible]	[illegible]	1.75	[illegible]	2.375	1.75	1.75	1.875
	2.25	2.125	3.625	1.50	2.375	2.25	1.50	[illegible]	2.25	1.875	[illegible]	1.625	[illegible]	[illegible]	3.00	1.75	[illegible]	[illegible]
	2.00	2.875	1.75	1.75	2.25	2.25	1.875	2.50	2.75	1.375	[illegible]	[illegible]	1.75	1.75	[illegible]	1.875	[illegible]	2.00
	1.875	2.50	2.25	[illegible]	1.625	[illegible]	1.625	2.50	[illegible]	1.375	2.125	[illegible]	1.50	2.375	2.125	1.75	[illegible]	[illegible]
	2.00	2.625	3.00	[illegible]	[illegible]	2.375	1.875	2.75	2.125	1.375	2.75	1.50	2.75	1.875	1.75	[illegible]	[illegible]	[illegible]
	1.00	2.875	1.75	1.75	2.75	[illegible]	1.375	2.75	2.125	1.25	[illegible]	[illegible]	1.75	1.75	2.375	1.50	[illegible]	[illegible]
	2.375	[illegible]	2.125	2.00	2.25	2.625	1.50	2.875	2.375	1.875	[illegible]	[illegible]	1.50	1.875	[illegible]	1.50	[illegible]	[illegible]
	[illegible]	3.25	[illegible]	2.50	2.75	2.625	1.25	[illegible]	2.125	2.125	1.625	[illegible]	1.625	[illegible]	2.75	1.50	[illegible]	2.00
	2.50	2.125	[illegible]	1.625	[illegible]	3.00	1.625	2.25	1.875	1.50	[illegible]	[illegible]	1.75	[illegible]	2.375	[illegible]	1.75	[illegible]
	1.875	3.25	[illegible]	[illegible]	[illegible]	2.25	1.50	2.25	2.50	1.50	[illegible]	1.75	1.875	[illegible]	[illegible]	1.75	[illegible]	[illegible]
	2.25	[illegible]	3.125	1.875	1.625	2.375	1.125	2.25	1.75	1.25	[illegible]	2.125	1.75	2.25	1.75	1.875	[illegible]	1.75
	2.00	[illegible]	2.375	1.50	2.25	[illegible]	1.50	2.25	2.25	1.50	1.75	2.625	2.25	2.75	[illegible]	[illegible]	[illegible]	1.75
	2.00	2.25	[illegible]	[illegible]	[illegible]	[illegible]	1.75	2.875	2.25	1.50	[illegible]	2.125	[illegible]	1.75	[illegible]	1.50	[illegible]	[illegible]
	2.00	2.25	2.375	2.125	[illegible]	2.625	1.875	2.875	3.00	1.50	2.75	2.25	2.00	1.50	3.75	2.125	[illegible]	1.75
	1.875	2.50	2.75	1.75	2.00	2.125	1.625	2.25	2.50	1.625	1.875	2.375	1.50	1.75	1.75	1.50	1.875	[illegible]
	2.125	2.125	2.75	2.00	1.875	2.125	1.50	2.75	[illegible]	1.50	2.375	2.125	1.625	1.75	[illegible]	2.25	1.25	1.75
	2.50	2.875	3.25	1.50	2.125	2.25	1.75	[illegible]	2.875	1.75	1.875	2.75	[illegible]	1.875	2.375	[illegible]	2.75	[illegible]
	2.25	[illegible]	3.00	2.25	1.75	2.125	1.50	2.75	2.50	1.75	2.25	2.25	1.50	1.625	2.50	1.25	[illegible]	[illegible]
	2.50	3.00	[illegible]	[illegible]	[illegible]	2.125	1.50	3.00	[illegible]	1.125	[illegible]	2.25	[illegible]	[illegible]	2.25	[illegible]	1.75	2.37
	1.875	2.25	2.625	1.75	[illegible]	2.125	1.50	2.625	[illegible]	1.625	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.25	2.25	[illegible]
	2.125	1.875	3.00	1.50	[illegible]	[illegible]	1.875	[illegible]	2.25	1.375	1.875	2.25	2.125	2.625	2.375	[illegible]	[illegible]	1.37
	2.50	2.50	1.75	1.375	1.50	[illegible]	2.00	2.00	3.00	1.375	2.125	[illegible]	1.50	1.50	2.375	1.50	1.75	[illegible]
	[illegible]	[illegible]	1.75	1.875	2.50	[illegible]	1.625	[illegible]	3.25	1.125	[illegible]	2.875	1.50	1.75	[illegible]	[illegible]	[illegible]	3.00
	1.875	[illegible]	[illegible]	2.00	[illegible]	2.50	1.375	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.50	[illegible]	[illegible]
	[illegible]	2.75	[illegible]	1.875	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	1.75	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	1.875	2.625	2.625	1.50	1.875	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Averages	2.108	2.429	2.417	1.883	2.221	2.346	1.633	[illegible]	2.400	1.583	2.213	2.171	1.829	[illegible]	2.308	1.725	2.050	2.133

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	[illegible]	[illegible]	B¹	2.50	[illegible]	B¹	[illegible]	0.7874	B¹	2.75	1.0826	B¹	2.75	1.0826	B¹	2.25	0.8858
	B²	3.25	1.2795	B²	3.00	1.1811	B²	3.00	1.1811	B²	2.75	1.0826	B²	2.75	1.0826	B²	2.75	1.0826
	B³	3.625	1.4271	B³	3.00	1.1811	B³	[illegible]	1.2795	B³	2.875	1.1318	B³	3.75	1.4763	B³	3.00	1.1811
Highest		3.625	1.4271		3.00	1.1811		3.25	1.2795		2.875	1.1318		3.75	1.4763		3.00	1.1811
Minimum measurements.	B¹	1.75	[illegible]	B¹	1.375	0.5413	B¹	1.125	0.4429	B¹	1.125	0.4429	B¹	1.25	0.4921	B¹	1.25	0.4921
	B²	1.875	0.7380	B²	1.50	0.5905	B²	[illegible]	0.7874	B²	1.50	0.5905	B²	1.50	0.5905	B²	1.25	0.4921
	B³	1.75	0.6889	B³	2.00	0.7874	B³	1.75	[illegible]	B³	1.50	[illegible]	B³	1.75	0.6889	B³	1.375	0.5413
Lowest		1.75	[illegible]		1.375	0.5413		1.125	0.4429		1.125	0.4429		1.25	0.4921		1.25	[illegible]
Average measurements.	B¹	2.108	0.8299	B¹	[illegible]	0.7413	B¹	1.633	0.6429	B¹	1.583	0.6232	B¹	[illegible]	[illegible]	B¹	1.725	0.6791
	B²	2.429	0.9562	B²	2.221	0.8744	B²	2.454	0.9661	B²	2.213	0.8712	B²	1.963	[illegible]	B²	2.050	0.8070
	B³	2.417	0.9514	B³	2.346	[illegible]	B³	2.400	0.9448	B³	2.171	0.8547	B³	[illegible]	0.9086	B³	2.133	0.8397
Average		2.318	0.9125		2.150	0.8464		2.162	0.8511		1.989	[illegible]		2.033	[illegible]		1.969	0.7751
Measurements above average		53			41			23			51			33			52	
Measurements below average		51			49			67			[illegible]			41			[illegible]	

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

	B.—PHILADELPHIA GRADES.												C.—GERMAN GRADES.					
Catalogue number of samples	318.			319*a*.			319*b*.			320.			1.			2.		
Length of fiber in crimp	3½ inches.			⅞ inches.			1½ inches.			1⅛ inches.			1⅛ inches.			1 inch.		
Number of crimps per inch	——			26.			26.			26.			34.			34.		
Number of section	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.	B^1.	B^2.	B^3.
Actual measurement in centimillimeters.	2.00	2.75	3.00	1.375	1.75	2.25	1.25	1.50	1.50	1.00	1.50	1.375	2.00	2.25	2.375	1.375	1.375	1.25
	1.625	3.00	4.00	1.50	1.375	1.75	1.125	1.75	1.25	1.375	1.00	1.00	2.00	2.25	2.5	1.25	2.0	1.0
	1.875	3.125	3.00	1.875	1.875	1.75	1.50	1.50	1.00	1.375	1.75	2.75	2.375	2.0	2.125	1.125	1.375	0.875
	1.75	3.75	3.75	1.50	1.75	1.75	1.00	1.50	1.125	1.125	1.25	1.50	1.375	2.0	2.375	1.5	1.375	1.
	1.625	2.75	3.50	1.75	1.75	2.00	1.125	1.25	1.125	1.50	1.375	1.75	1.375	1.75	1.75	1.375	1.375	0.875
	1.625	2.875	4.50	1.75	1.75	1.25	1.375	1.75	1.50	1.875	1.50	1.375	2.125	1.75	1.625	1.5	1.625	1.375
	2.25	3.25	3.00	1.75	2.125	2.125	1.375	1.375	1.75	1.375	1.25	1.125	2.125	1.5	1.875	1.375	1.75	1.375
	2.25	3.00	2.75	1.875	1.625	2.375	1.125	1.75	1.125	1.25	1.25	1.50	1.5	2.0	2.125	1.25	1.375	0.875
	1.625	3.50	3.25	1.625	1.875	1.875	0.875	1.75	1.00	1.50	1.25	1.50	1.75	2.125	3.0	1.375	1.375	1.25
	2.00	3.00	3.125	1.50	1.50	2.125	1.375	1.75	1.00	1.50	1.50	1.375	1.625	1.75	1.875	1.5	1.375	1.
	1.625	3.50	2.125	1.50	1.50	2.50	1.25	1.375	1.375	1.125	1.25	1.125	1.5	1.625	2.0	1.25	1.375	1.875
	2.375	4.50	3.50	1.75	2.00	2.00	1.375	1.50	1.25	1.25	1.25	1.125	2.8	1.625	2.375	1.375	1.5	1.375
	2.375	4.00	3.50	2.00	1.75	1.625	1.00	1.50	1.25	1.25	1.50	1.25	1.875	2.0	2.0	1.5	1.875	1.125
	1.50	2.75	3.50	1.625	1.875	2.125	0.75	1.75	1.125	1.375	1.375	1.375	1.625	2.375	2.375	1.25	1.625	1.
	2.25	4.75	3.00	2.00	1.875	1.875	1.25	1.625	1.375	1.375	1.375	1.25	1.375	2.125	2.0	1.375	1.375	0.75
	2.75	2.25	3.50	1.625	1.50	1.625	1.00	1.75	1.25	1.50	1.50	1.125	1.625	2.375	2.125	1.25	1.375	1.25
	2.00	2.00	3.50	1.25	1.875	1.375	1.00	1.75	1.00	1.25	1.25	1.375	1.5	2.375	2.0	1.5	1.625	1.375
	2.00	3.00	3.25	1.75	1.50	2.00	1.25	1.375	1.125	1.125	1.375	1.125	2.0	2.25	2.625	1.625	1.75	1.125
	1.50	2.50	4.25	1.375	1.50	1.75	1.375	1.625	1.125	1.375	1.375	1.00	2.0	1.75	2.125	1.5	1.375	0.875
	1.875	3.50	3.25	2.00	1.875	1.75	1.375	1.50	0.875	1.25	1.50	1.25	2.125	1.875	1.875	1.5	1.75	1.375
	1.75	3.00	3.50	1.50	1.50	2.00	1.375	1.75	1.50	1.25	1.375	1.50	1.5	1.625	1.875	1.5	1.5	1.5
	2.00	2.50	2.50	1.75	2.00	1.75	1.125	1.375	1.375	1.375	1.50	1.25	1.75	2.0	1.875	1.5	1.5	1.25
	2.875	3.00	2.50	1.75	1.375	1.50	1.375	1.75	1.375	1.375	1.375	1.125	1.375	1.875	1.875	1.375	1.375	1.5
	2.00	2.25	1.75	2.25	1.25	1.75	1.25	1.50	1.50	1.50	1.375	1.50	1.75	2.0	2.0	1.5	1.625	1.75
	1.75	2.75	3.50	1.875	1.50	1.875	1.125	1.375	1.50	1.25	1.50	1.125	1.375	1.875	1.875	1.375	1.5	1.75
	1.875	4.25	3.375	1.375	1.625	1.50	1.25	1.375	1.50	1.25	1.375	1.125	1.75	2.25	2.0	1.5	1.625	1.625
	2.125	2.875	3.25	1.625	1.75	1.50	1.25	1.375	1.125	1.50	1.25	1.00	2.0	1.5	1.5	1.0	1.0	1.25
	2.25	3.625	4.00	1.75	1.50	1.50	1.375	1.50	1.25	1.375	1.25	1.025	2.0	1.75	1.75	1.25	1.5	1.625
	1.75	3.25	3.75	1.50	1.75	2.00	1.125	1.50	1.00	1.00	1.25	1.25	1.5	2.125	2.375	1.375	1.5	1.875
	2.125	3.00	3.50	1.75	1.75	1.75	0.875	1.375	1.50	1.375	1.125	1.00	1.375	2.125	1.75	1.375	1.5	1.875
Averages	1.979	3.142	3.296	1.683	1.687	1.833	1.196	1.550	1.258	1.300	1.358	1.325	1.741	1.962	2.066	1.383	1.508	1.300

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B^1	2.875	1.1818	B^1	2.25	0.8858	B^1	1.50	0.5905	B^1	1.50	0.5905	B^1	2.375	0.9350	B^1	1.625	0.6397
	B^2	4.75	1.8700	B^2	2.125	0.8366	B^2	1.75	0.6889	B^2	1.75	0.6889	B^2	2.375	0.9350	B^2	1.875	0.7381
	B^3	4.50	1.7716	B^3	2.50	0.9842	B^3	1.75	0.6889	B^3	2.75	1.0826	B^3	2.375	0.9350	B^3	1.875	0.7381
Highest	.....	4.75	1.8700	.....	2.50	0.9842	.....	1.75	0.6889	.....	2.75	1.0826	.....	2.375	0.9350	.....	1.875	0.7381
Minimum measurements.	B^1	1.50	0.5905	B^1	1.25	0.4921	B^1	0.75	0.2953	B^1	0.875	0.3445	B^1	1.375	0.5413	B^1	1.0	0.3937
	B^2	2.00	0.7874	B^2	1.25	0.4921	B^2	1.25	0.4921	B^2	1.00	0.3937	B^2	1.5	0.5905	B^2	1.0	0.3937
	B^3	1.75	0.6889	B^3	1.25	0.4921	B^3	0.875	0.3445	B^3	1.00	0.3937	B^3	1.5	0.5905	B^3	0.75	0.2952
Lowest	.....	1.50	0.5905	.....	1.25	0.4921	.....	0.75	0.2953	.....	0.875	0.3445	.....	1.375	0.5413	.....	0.75	0.2952
Average measurements.	B^1	1.979	0.7791	B^1	1.683	0.6625	B^1	1.196	0.4708	B^1	1.300	0.5118	B^1	1.741	0.6854	B^1	1.383	0.5444
	B^2	3.142	1.2370	B^2	1.687	0.6641	B^2	1.550	0.6102	B^2	1.358	0.5346	B^2	1.962	0.7724	B^2	1.508	0.5937
	B^3	3.296	1.2976	B^3	1.833	0.7216	B^3	1.258	0.4952	B^3	1.325	0.5216	B^3	2.066	0.8133	B^3	1.300	0.5118
Average	.....	2.806	1.1047	.....	1.734	0.6826	.....	1.335	0.5255	.....	1.328	0.5228	.....	1.923	0.7570	.....	1.397	0.5499
Measurements above average	.....	47		.....	55		.....	51		.....	47		.....	46		.....	38	
Measurements below average	.....	43		.....	35		.....	39		.....	43		.....	44		.....	52	

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

C.—GERMAN GRADES.

	3.				4.			5.			6.		7.		
Catalogue number of samples															
Length of fiber in crimp	1¾ inches.				1½ inches.			1½ inches.			1½ inches.		1½ inches.		
Number of crimps per inch	[illegible]				[illegible]			27.			27.		25.		
Number of section	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B².	B³.	B⁴.	B¹.	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	1.375	1.5	1.875	2.	1.5	1.5	1.375	1.5	1.875	1.875	1.75	2.5	1.25	1.375	1.625
	1.5	1.5	1.5	1.375	1.375	1.875	1.75	1.375	1.5	1.75	1.75	1.375	1.375	1.375	1.75
	1.25	1.375	1.375	1.75	1.625	1.5	1.625	1.625	1.375	2.375	1.375	1.5	1.375	1.375	1.5
	1.625	1.375	1.625	1.5	1.875	1.875	1.25	1.875	1.625	2.125	1.5	2.	1.	1.75	1.375
	1.125	1.375	1.75	1.75	1.625	1.75	1.375	1.25	2.	1.75	1.5	1.75	1.75	1.875	1.75
	1.5	1.375	1.625	[illegible]	1.5	1.625	1.5	1.5	1.375	2.0	1.875	1.75	1.625	1.375	1.375
	1.75	1.875	2.125	1.25	1.375	1.875	1.5	1.5	[illegible]	2.0	1.5	1.5	[illegible]	1.375	2.
	1.5	1.875	1.875	2.25	1.375	1.75	1.5	1.875	1.25	1.75	1.25	1.375	1.75	1.75	[illegible]
	1.375	1.875	1.375	1.5	[illegible]	1.75	[illegible]	1.25	1.375	1.875	1.75	1.5	1.75	1.5	1.75
	1.25	1.875	1.625	1.5	1.875	1.625	1.375	1.5	1.25	1.875	1.875	1.375	1.375	1.5	1.375
	1.875	1.5	1.5	2.125	1.375	[illegible]	1.375	1.5	[illegible]	1.5	1.125	1.75	1.5	2.	1.5
	1.125	2.	1.875	1.5	1.5	1.75	1.625	1.875	2.25	[illegible]	1.5	1.5	1.375	1.625	1.875
	1.375	1.75	1.75	[illegible]	1.125	1.875	1.5	1.375	1.875	2.125	1.875	1.375	1.25	[illegible]	1.75
	2.	1.875	1.25	2.	1.5	2.	1.5	1.375	1.75	1.625	2.	2.375	1.5	1.75	[illegible]
	1.875	1.375	1.875	2.	1.75	[illegible]	1.625	1.625	1.875	1.875	2.	1.75	1.25	1.75	1.375
	1.5	1.75	1.375	1.75	1.5	1.75	1.375	1.625	1.5	1.5	1.75	1.5	1.	[illegible]	1.75
	1.375	1.375	1.625	1.375	1.5	2.25	1.5	1.375	1.375	2.375	1.875	1.875	1.75	1.75	1.25
	1.125	1.75	1.75	2.5	2.25	2.	1.5	1.25	[illegible]	1.875	1.5	1.75	1.75	1.5	1.375
	1.75	[illegible]	1.75	[illegible]	1.875	1.875	1.875	1.25	1.375	1.875	[illegible]	1.375	[illegible]	2.25	1.875
	1.5	2.375	1.5	1.5	1.375	1.75	2.	1.375	1.5	1.75	1.875	1.5	1.5	1.375	1.875
	1.75	1.25	1.5	2.125	1.375	1.75	1.75	1.75	1.375	1.875	1.625	1.5	1.5	1.25	1.75
	1.625	1.75	1.375	1.875	1.375	1.875	1.875	1.5	1.75	1.875	1.5	1.375	1.	1.75	1.875
	1.875	1.5	1.75	1.75	1.5	1.75	1.625	1.875	2.5	1.5	1.875	1.75	1.375	1.75	1.875
	1.25	1.625	1.625	1.875	[illegible]	1.25	1.75	1.375	1.5	2.0	1.5	2.	1.375	1.75	1.25
	1.75	1.25	2.25	2.5	1.375	1.75	[illegible]	1.625	2.0	1.375	1.5	1.625	1.25	2.75	1.75
	1.25	1.625	1.875	2.0	1.75	1.875	1.5	1.25	1.5	2.0	1.625	1.375	1.5	1.5	[illegible]
	1.	2.	2.375	1.875	1.625	1.75	1.75	1.875	2.0	1.75	1.625	1.5	1.5	1.875	1.5
	[illegible]	1.75	2.	1.375	1.5	1.75	1.875	[illegible]	1.375	1.625	1.75	1.625	1.5	1.625	1.625
	1.25	1.625	1.625	2.	1.375	1.875	1.5	1.375	2.375	2.0	2.375	1.375	1.375	1.75	1.375
	1.5	1.5	1.625	1.5	1.375	[illegible]	1.75	1.375	1.75	1.375	1.5	[illegible]	1.5	1.375	1.25
Averages	1.466	1.641	1.700	1.816	1.516	1.791	[illegible]	1.487	1.658	1.841	1.679	1.650	1.416	1.606	1.583

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	1.875	0.7381	B¹	1.875	0.7381	B¹	1.875	0.7381	B¹	[illegible]	[illegible]	B¹	1.75	0.6889
	B²	1.875	0.7381	B²	[illegible]	0.8858	B²	2.5	0.9842	B²	2.5	0.9842	B²	2.75	1.0826
	B³	2.375	0.9350	B³	[illegible]	0.7874	B³	2.375	0.9350	B³	[illegible]	[illegible]	B³	[illegible]	0.7874
	B⁴	2.25	0.8858	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Highest	.....	2.375	0.9350	.....	2.25	0.8858	.....	2.5	0.9842	.....	2.5	0.9842	.....	2.75	1.0826
Minimum measurements.	B¹	1.000	0.3937	B¹	1.125	0.4429	B¹	1.25	0.4921	B³	1.125	0.4429	B¹	1.00	0.3937
	B²	1.25	0.4921	B²	1.500	0.5905	B²	1.25	0.4921	B²	1.375	0.5413	B²	1.25	0.4921
	B³	1.25	0.4921	B³	1.25	0.4921	B³	1.375	0.5413	.....	.....	.....	B³	1.25	0.4921
	B⁴	1.25	0.4921	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lowest	.....	1.00	0.3937	.....	1.125	0.4429	.....	1.25	0.4921	.....	1.125	0.4429	.....	1.00	0.3937
Average measurements.	B¹	1.466	0.5771	B¹	1.516	0.5968	B¹	1.487	0.5854	B¹	1.679	0.6610	B¹	1.416	0.5574
	B²	1.641	0.6460	B²	1.791	0.7051	B²	1.658	0.6527	B²	1.650	0.6496	B²	[illegible]	0.6322
	B³	1.700	0.6692	B³	1.612	0.6346	B³	1.841	0.7248	.....	.....	.....	B³	1.583	0.6232
	B⁴	1.816	0.7149	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Average	.....	[illegible]	0.6515	.....	[illegible]	[illegible]	.....	[illegible]	0.6543	.....	[illegible]	0.6551	.....	[illegible]	0.6043
Measurements above average	.....	54		.....	40		.....	40		.....	27		.....	39	
Measurements below average	.....	66		.....	50		.....	50		.....	33		.....	51	

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

C.—GERMAN GRADES.

	8.			9.			10.			11.			12.		
Catalogue number of samples															
Length of fiber in crimp	1⅛ inches.			1 ⅜ inches.			1¼ inches.			1⅜ inches.			1⅝ inches.		
Number of crimps per inch	25.			22.			22.			20.			20.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	1.5	1.75	1.875	1.5	1.875	2.0	1.875	1.75	2.125	2.125	1.875	2.	2.25	2.125	2.0
	1.	1.5	1.625	1.5	1.5	1.5	1.5	1.75	1.5	1.5	2.125	2.125	2.	1.5	2.0
	1.25	1.75	1.625	1.375	1.75	2.125	1.375	1.625	1.875	1.5	2.	2.125	1.5	2.125	1.875
	1.25	1.375	1.5	1.375	1.5	1.875	1.75	1.75	2.125	1.75	2.25	2.25	1.75	1.5	1.75
	1.	1.625	1.375	1.375	1.875	1.375	1.5	1.625	1.5	1.75	2.25	1.75	1.5	2.125	1.875
	1.625	1.625	1.75	1.75	1.875	1.75	1.75	1.875	2.	1.75	2.375	1.875	1.5	1.75	1.625
	1.5	1.625	1.375	1.375	1.875	2.0	1.375	1.5	1.875	1.625	2.25	2.0	1.375	2.25	1.5
	1.375	2.	1.375	1.875	2.0	2.125	1.5	1.625	1.75	1.5	2.	1.875	1.875	1.75	1.75
	1.75	1.5	1.375	1.75	1.5	1.875	1.625	1.75	1.375	2.	2.125	1.875	1.625	1.5	2.0
	1.875	1.25	1.625	1.875	1.5	1.875	1.75	1.75	1.5	1.625	1.625	2.125	1.75	1.875	1.75
	1.5	1.625	1.375	1.5	1.5	2.125	1.75	1.5	2.	1.5	2.25	2.0	1.375	1.75	1.875
	1.375	1.375	1.625	1.375	1.875	1.875	1.625	2.125	1.75	1.375	1.875	1.75	2.125	2.0	1.5
	1.875	1.5	1.5	1.75	1.5	2.25	1.375	1.625	1.375	1.625	1.875	2.0	2.875	1.75	1.625
	1.5	1.375	1.5	1.625	1.5	2.	1.25	1.875	2.25	1.5	2.375	1.875	1.75	2.0	1.375
	1.5	1.625	1.75	1.75	1.5	1.625	1.375	1.375	2.	1.875	2.125	2.0	2.0	1.875	1.625
	1.75	1.75	1.375	1.5	1.875	1.5	1.875	1.875	1.75	1.5	1.875	2.25	2.125	1.25	1.375
	1.625	1.625	1.75	1.5	1.5	2.0	1.875	1.76	2.	1.5	2.25	2.375	1.75	1.625	1.75
	1.5	1.625	1.625	1.5	1.875	1.375	1.75	1.75	2.	1.5	1.75	2.125	2.625	1.875	2.
	1.375	1.5	1.375	1.5	1.75	1.75	1.75	1.625	1.75	1.75	2.	1.875	1.5	1.875	1.75
	1.125	1.75	1.25	1.5	1.75	2.25	1.5	1.875	1.375	2.125	2.125	2.125	2.	2.125	1.875
	1.375	1.375	1.75	1.5	1.875	1.75	1.375	2.	1.75	1.125	1.875	1.75	2.5	2.375	1.75
	1.625	1.75	1.5	1.75	1.5	1.75	1.875	1.625	1.875	1.5	1.875	1.875	1.875	1.75	1.375
	1.375	1.75	1.375	2.	1.75	1.875	1.625	2.	1.875	2.125	1.75	2.375	1.5	2.	1.875
	1.375	2.25	1.375	1.875	1.75	2.	1.75	1.625	1.375	1.625	2.	1.875	2.	2.	2.125
	1.25	2.	1.5	1.5	1.5	1.75	1.75	1.5	1.75	1.875	2.375	1.875	1.875	2.	1.875
	1.	1.75	1.875	1.375	1.375	1.875	1.875	1.875	1.375	1.75	1.875	1.875	1.625	1.875	1.625
	1.5	1.75	1.625	1.375	2.0	1.625	1.75	1.5	2.	1.75	2.25	1.625	1.375	1.625	1.625
	1.375	1.5	1.375	1.75	1.625	1.375	1.125	1.625	1.125	1.625	2.25	1.875	1.5	1.75	1.25
	1.	1.75	1.375	1.625	1.875	1.875	1.75	1.875	2.	2.	2.	2.5	2.	2.25	1.875
	1.375	1.5	1.25	1.375	2.0	1.875	1.875	1.625	2.	1.625	1.5	2.25	1.75	2.00	1.75
Averages	1.416	1.637	1.520	1.579	1.704	1.833	1.629	1.720	1.766	1.679	2.037	2.008	1.841	1.875	1.733

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements	B¹	1.875	0.7381	B¹	2.00	0.7874	B¹	1.875	0.7381	B¹	2.125	0.8366	B¹	2.875	1.1318
	B²	1.75	0.6889	B³	2.00	0.7874	B³	2.125	0.8366	B²	2.375	0.9350	B²	2.375	0.9350
	B³	1.875	0.7381	B³	2.25	0.8858	B²	2.125	0.8366	B³	2.5	0.9842	B³	2.125	[illegible]
Highest		1.875	0.7381		2.25	0.8858		2.125	0.8366		2.50	0.9842		2.875	1.1318
Minimum measurements	B¹	1.00	0.3937	B¹	1.375	0.5413	B¹	1.125	0.4429.	B¹	1.125	0.4429	B¹	1.375	0.5413
	B²	1.25	0.4921	B²	1.375	0.5413	B²	1.375	0.5413	B³	1.5	0.5905	B²	1.25	0.4921
	B³	1.25	0.4921	B³	1.375	0.5413	B³	1.125	0.4429	B²	1.625	0.6397	B³	1.25	0.4921
Lowest		1.00	0.3937		1.375	0.5413		1.125	0.4429		1.125	0.4429		1.25	0.4921
Average measurements	B¹	1.416	0.5751	B¹	1.579	0.6215	B¹	1.629	0.6413	B¹	1.679	0.6610	B¹	1.841	0.7248
	B²	1.637	0.6444	B²	1.704	0.6708	B²	1.720	0.6771	B²	2.037	0.8019	B²	1.875	0.7380
	B³	1.520	0.5984	B³	1.833	0.7216	B²	1.766	0.6952	B³	2.008	0.7903	B³	1.733	0.6822
Average		1.504	0.5921		1.705	0.6712		1.705	0.6712		1.908	0.7511		1.8163	0.7149
Measurements above average		38			50			53			40			44	
Measurements below average		52			40			37			59			10	

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

C.—GERMAN GRADES.

Catalogue number of samples	13.			14.			15.			16.			17.		
Length of fiber in crimp	1½ inches.			1½ inches.			1½ inches.			1½ inches.			1½ inches.		
Number of crimps per inch	16.			16.			14.			20.			25.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.375	1.75	2.75	2.	1.875	2.25	2.	2.625	3.0	2.375	1.875	1.75	1.375	1.5	1.5
	2.	2.75	2.	2.375	2.75	1.625	2.25	2.	1.875	2.5	1.75	2.25	1.875	1.5	1.25
	1.75	1.75	2.5	1.625	1.875	1.875	2.75	2.	2.75	1.875	1.875	1.75	1.5	1.75	1.375
	2.375	2.5	2.	2.375	2.125	2.5	2.375	1.875	2.5	2.	1.5	2.125	1.375	1.75	2.
	1.75	2.	2.	1.75	1.625	1.75	3.25	2.25	2.625	2.625	2.	2.	1.75	2.25	1.625
	2.	2.25	1.875	1.75	2.25	1.75	1.5	2.375	3.5	2.375	2.	2.375	1.5	2.	1.875
	1.875	2.125	2.125	2.75	2.25	1.375	3.5	1.75	2.25	1.875	1.5	1.875	1.75	1.75	1.5
	2.	2.5	1.5	2.	1.125	1.75	2.5	1.75	1.5	1.375	2.125	1.625	1.75	1.875	1.625
	2.125	1.875	2.375	1.625	1.875	1.5	1.875	3.25	1.625	1.625	1.75	2.625	1.75	1.75	1.25
	1.875	2.	2.375	1.75	1.875	1.875	2.0	2.5	2.0	3.	2.375	2.25	1.75	1.625	1.5
	2.	2.75	1.875	1.625	1.875	2.5	2.125	3.375	2.25	2.	2.	1.625	1.5	1.5	1.5
	2.	2.	2.	1.5	1.875	1.625	1.875	3.25	2.125	1.625	2.	2.	1.75	1.5	1.5
	2.25	2.125	1.875	1.875	1.75	1.5	2.5	2.5	2.	2.	1.875	1.75	1.25	1.75	1.5
	1.75	2.	2.125	2.375	2.375	2.125	2.25	2.5	1.75	2.25	1.5	1.75	1.5	1.25	2.
	1.875	2.375	1.875	2.	1.625	2.25	2.0	2.	2.	2.375	2.	1.	2.125	1.25	1.75
	2.5	1.875	2.375	1.875	1.875	2.0	2.0	2.	1.25	2.875	2.	2.	1.5	1.75	1.75
	1.875	2.125	2.125	1.625	2.	2.25	1.875	2.75	2.25	1.875	1.75	2.25	1.25	1.75	2.375
	2.25	2.	2.375	2.125	1.625	2.	2.375	2.875	2.	1.375	2.75	1.875	1.5	1.625	1.75
	2.	2.375	1.625	1.75	1.75	2.	2.75	2.	2.375	1.625	2.5	2.375	2.	2.25	1.75
	2.	2.25	2.25	1.875	1.875	2.	2.875	2.25	1.75	2.75	1.875	1.5	1.5	1.5	1.875
	2.	3.	2.5	2.25	2.125	1.875	2.25	2.25	2.	3.0	1.5	1.5	1.75	1.625	1.75
	1.875	2.375	1.75	2.	2.625	1.375	1.875	2.5	1.5	1.75	1.75	2.125	1.375	1.875	1.375
	1.5	1.625	2.375	1.75	2.	2.125	2.	2.5	1.75	1.875	1.75	1.75	1.75	1.875	1.5
	1.75	2.375	2.25	1.875	2.	1.5	2.125	2.25	2.75	1.75	1.5	2.	1.75	1.5	2.25
	2.125	2.25	1.75	2.25	1.625	1.75	2.	2.5	2.5	1.75	1.625	2.375	1.875	2.25	1.75
	2.	2.	2.625	2.25	2.875	2.175	2.	2.25	1.75	1.875	2.	1.5	2.	1.5	1.25
	2.	1.75	2.375	1.875	2.125	2.	2.5	2.5	1.875	1.875	1.75	1.5	1.875	1.875	1.875
	1.75	2.5	1.75	1.875	2.375	1.875	2.5	2.5	2.25	1.75	2.5	1.125	1.5	1.75	2.125
	2.25	2.	2.25	1.875	2.125	1.75	2.	2.0	2.25	1.5	2.	1.75	1.625	1.5	1.5
	1.75	2.375	1.75	1.875	2.125	2.25	1.875	2.0	2.375	1.875	1.875	2.125	1.375	1.625	1.75
Averages	1.987	2.187	2.095	1.954	2.075	1.905	2.258	2.370	2.145	1.906	1.953	1.866	1.637	1.691	1.720

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹.	2.5	0.9842	B¹.	2.75	1.0828	B¹.	3.5	1.3779	B¹.	3.0	1.1811	B¹.	2.125	0.8360
	B².	3.0	1.1811	B².	2.875	1.1318	B².	3.375	1.3287	B².	2.75	1.0826	B².	2.25	0.8858
	B³.	2.625	1.0334	B³.	2.5	0.9842	B³.	3.5	1.3779	B³.	2.625	1.0334	B³.	2.375	0.9350
Highest		3.0	1.1811		2.875	1.1318		3.5	1.3779		3.0	1.1811		2.375	0.9350
Minimum measurements.	B¹.	1.5	0.5905	B¹.	1.5	0.5905	B¹.	1.5	0.5905	B¹.	1.375	0.5413	B¹.	1.25	0.4921
	B².	1.75	0.6889	B².	1.125	0.4429	B².	1.75	0.6889	B².	1.5	0.5905	B².	1.25	0.4921
	B³.	1.5	0.5905	B³.	1.375	0.5413	B³.	1.25	0.4921	B³.	1.125	0.4429	B³.	1.25	0.4921
Lowest		1.5	0.5905		1.375	0.5413		1.25	0.4921		1.125	0.4429		1.25	0.4921
Average measurements.	B¹.	1.987	0.7823	B¹.	1.954	0.7692	B¹.	2.258	0.8890	B¹.	1.906	0.7858	B¹.	1.637	0.6444
	B².	2.187	0.8610	B².	2.075	0.8169	B².	2.370	0.9330	B².	1.953	0.7866	B².	1.691	0.6657
	B³.	2.095	0.8248	B³.	1.905	0.7499	B³.	2.145	0.8444	B³.	1.866	0.7346	B³.	1.720	0.6771
Average		2.089	0.8224		1.978	0.7787		2.257	0.8885		1.953	0.7688		1.682	0.6621
Measurements above average		41			42			35			41			45	
Measurements below average		45			40			35			39			45	

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

C.—GERMAN GRADES.

Catalogue number of samples	18.			19.			20.				21.				22.				
Length of fiber in crimp	1⅝ inches.			1¼ inches.			3½ inches.				3⅜ inches.				——				
Number of crimps per inch	22.			25.			16.				20.				——				
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B⁵.
Actual measurement in centimillimeters.	2.5	2.125	2.0	1.875	1.5	1.625	1.875	2.0	1.5	2.875	2.5	2.125	2.125	2.	1.75	1.5	1.625	1.5	1.5
	1.5	1.5	2.875	1.75	1.375	1.75	2.	2.75	1.75	1.75	2.5	2.75	2.25	2.	1.5	1.5	1.75	1.5	1.75
	1.625	2.0	2.0	1.75	1.625	1.875	1.5	2.	1.75	2.875	2.125	2.25	1.625	1.875	1.625	1.5	2.25	1.25	1.5
	1.375	1.875	1.75	1.375	1.5	1.75	1.875	1.875	3.0	2.125	2.25	2.	2.0	2.125	1.375	1.5	1.875	1.75	1.375
	2.25	2.	1.5	1.5	1.625	1.75	3.	2.5	1.75	1.875	2.125	2.75	2.25	1.5	1.25	1.875	1.625	1.75	1.75
	2.25	2.	1.75	1.625	1.5	0.875	1.5	2.625	2.25	1.75	2.125	1.75	2.375	1.875	1.75	1.75	1.5	1.5	1.75
	2.125	1.5	1.75	1.75	1.75	1.875	1.75	1.875	2.375	2.	2.375	3.	1.75	2.5	1.75	1.75	1.625	1.5	1.625
	2.25	1.375	1.875	1.125	1.75	1.5	1.375	2.125	2.375	2.75	2.5	1.875	1.875	1.875	1.5	1.125	1.125	1.625	1.625
	2.	1.875	1.75	1.375	1.5	2.125	2.5	2.	3.0	2.125	2.0	2.5	2.25	2.	2.	1.75	1.75	1.875	1.625
	1.875	1.875	1.75	1.625	1.625	1.25	2.	2.375	2.875	2.875	2.25	2.125	1.75	1.875	1.5	1.625	1.375	1.5	1.375
	1.75	2.375	1.75	1.875	1.5	1.875	1.875	2.375	2.75	2.5	2.5	2.375	2.0	2.25	1.875	1.875	1.5	1.625	1.625
	2.	2.375	1.75	1.75	1.5	1.875	2.875	2.	2.25	1.75	2.5	1.5	1.375	2.	1.875	1.5	1.625	2.	1.5
	2.	1.75	1.875	1.625	2.	1.75	1.75	1.75	3.25	1.875	2.25	2.	2.0	2.25	1.375	1.75	1.25	2.	1.5
	1.375	1.625	2.	1.875	1.5	1.75	2.25	1.875	3.0	2.5	2.875	2.125	2.0	1.875	2.	1.375	1.375	1.875	1.5
	1.25	1.75	2.875	1.625	2.	1.25	1.875	1.625	2.625	2.125	1.75	2.375	2.375	1.5	1.75	1.75	1.25	1.75	1.375
	2.	1.875	1.875	1.5	2.375	1.375	1.75	2.125	2.75	1.875	2.25	2.375	1.875	2.	1.375	1.5	1.625	1.5	1.5
	2.	2.	1.75	1.75	1.625	1.125	1.5	2.75	2.375	2.	2.25	1.875	2.5	2.25	1.75	1.5	1.5	1.875	1.25
	1.125	2.875	1.875	1.5	1.625	2.125	1.75	2.	2.875	2.375	2.875	2.375	1.875	2.375	1.625	1.75	1.375	1.25	1.125
	1.375	2.	1.5	1.875	1.25	1.875	1.625	2.	3.0	1.75	2.25	1.875	2.125	2.375	1.625	1.5	1.5	1.625	1.75
	2.25	1.25	1.75	1.5	1.5	2.0	1.75	2.5	2.75	2.125	2.875	2.	2.25	2.375	1.75	1.25	1.5	1.75	1.375
	2.125	2.75	2.375	1.5	2.25	1.5	1.75	3.	1.5	2.125	2.125	2.875	2.25	1.875	1.625	1.75	1.75	1.75	1.75
	1.25	1.625	3.	1.5	2.0	1.5	1.75	1.875	1.75	2.	2.25	1.875	1.75	2.	1.5	1.75	2.	1.375	1.375
	1.25	1.625	2.375	1.75	1.75	1.375	2.	1.75	2.25	1.875	2.5	2.25	1.5	2.5	1.5	1.875	1.375	1.625	1.375
	1.75	1.5	1.5	1.5	1.25	1.625	1.375	1.875	3.0	2.375	2.125	2.125	1.75	2.125	1.75	1.75	1.625	1.75	1.25
	1.75	2.25	1.5	1.	1.5	1.875	2.	1.5	2.25	3.0	2.375	2.125	2.625	2.75	1.5	1.75	1.375	1.75	1.875
	1.375	2.125	2.5	1.5	1.75	1.625	1.5	2.375	2.875	1.875	1.5	1.875	1.625	2.0	1.625	1.75	1.875	1.75	1.25
	1.375	1.375	2.125	1.5	2.375	1.75	1.75	2.	1.75	2.	2.	1.875	2.375	2.625	1.875	2.	1.75	1.375	1.75
	1.5	1.625	2.	1.5	2.375	2.0	1.875	1.875	2.25	2.25	2.	2.	2.125	3.	1.75	1.5	1.875	1.875	1.625
	1.375	2.0	2.625	2.0	1.75	1.75	1.875	2.	2.0	2.75	1.75	2.5	1.875	1.5	1.625	1.75	1.5	1.625	1.375
	1.125	2.0	1.875	2.0	2.	1.5	1.875	1.875	2.375	3.25	1.5	2.5	2.0	1.75	1.375	1.75	1.125	1.625	2.
Averages	1.725	1.895	2.062	1.605	1.720	1.659	1.864	2.108	2.395	2.179	2.221	2.166	1.996	2.100	1.667	1.675	1.565	1.636	1.533

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements.	B¹	2.5	0.9842	B¹	2.0	0.7874	B¹	3.0	1.1811	B¹	2.875	1.1318	B¹	2.0	0.7874
	B²	2.875	1.1318	B²	2.375	0.9350	B²	3.0	1.1811	B²	2.625	1.0334	B²	2.0	0.7874
	B³	3.0	1.1811	B³	2.125	0.8366	B³	3.25	1.2795	B³	3.0	1.1811	B³	2.25	0.8858
							B⁴	3.25	1.2795	B⁴	3.0	1.1811	B⁴	2.0	0.7874
													B⁵	2.0	0.7874
Highest		3.0	1.1811		2.375	0.9350		3.25	1.2795		3.0	1.1811		2.25	0.8858
Minimum measurements.	B¹	1.125	0.4429	B¹	1.125	0.4429	B¹	1.375	0.5413	B¹	1.5	0.5905	B¹	1.25	0.4921
	B²	1.25	0.4921	B²	1.25	0.4921	B²	1.5	0.5905	B²	1.5	0.5905	B²	1.125	0.4429
	B³	1.5	0.5905	B³	1.125	0.4429	B³	1.5	0.5905	B³	1.375	0.5413	B³	1.125	0.4429
							B⁴	1.75	0.6889	B⁴	1.5	0.5905	B⁴	1.25	0.4921
													B⁵	1.125	0.4429
Lowest		1.125	0.4429		1.125	0.4429		1.375	0.5413		1.375	0.5413		1.125	0.4429
Average measurements.	B¹	1.725	0.6791	B¹	1.605	0.6318	B¹	1.864	0.7338	B¹	2.221	0.8744	B¹	1.667	0.6562
	B²	1.895	0.7460	B²	1.720	0.6771	B²	2.108	0.8299	B²	2.166	0.8527	B²	1.675	0.6594
	B³	2.062	0.8118	B³	1.659	0.6531	B³	2.395	0.9429	B³	1.996	0.7858	B³	1.565	0.6161
							B⁴	2.179	0.8578	B⁴	2.100	0.8267	B⁴	1.636	0.6440
													B⁵	1.533	0.6035
Average		1.894	0.7456		1.661	0.6539		2.136	0.8409		2.120	0.8346		1.615	0.6358
Measurements above average		38			42			47			67			86	
Measurements below average		52			48			73			53			64	

TABLE XXVII.—*Actual measurements of length, crimp, and fineness of commercial grades*—Continued.

C.—GERMAN GRADES.

	23.			24.			25.				26.			
Catalogue number of samples														
Length of fiber in crimp	1½ inches.			2½ inches.			4½ inches.				4 inches.			
Number of crimps per inch	16.			16.			20.				[illegible]			
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	1.75	1.5	1.5	2.5	2.625	2.25	2.5	[illegible]	2.875	2.5	[illegible]	2.875	1.75	[illegible]
	1.5	1.625	1.625	2.125	2.375	2.375	2.0	1.25	2.75	2.25	2.25	2.25	2.25	1.875
	2.125	1.875	1.625	2.25	2.0	2.375	2.875	2.0	2.0	2.75	2.5	[illegible]	1.875	1.625
	1.75	1.125	2.0	2.375	2.125	2.75	1.875	2.875	2.0	2.5	2.5	[illegible]	[illegible]	1.25
	1.75	2.25	1.625	1.875	2.0	2.5	2.875	2.0	2.5	2.25	2.0	2.75	2.375	[illegible]
	1.5	1.75	1.875	2.25	2.125	2.875	2.5	2.375	2.875	3.0	2.375	2.375	2.125	2.375
	2.0	1.875	1.625	2.25	[illegible]	2.25	2.375	2.375	1.75	1.875	2.125	2.375	2.25	2.5
	1.375	1.5	1.5	2.75	2.0	2.875	2.375	2.625	2.5	1.75	2.875	2.0	2.125	[illegible]
	1.75	1.5	1.5	2.0	2.375	2.25	2.375	2.25	2.5	[illegible]	2.625	2.75	1.875	2.625
	[illegible]	1.5	2.0	2.5	2.125	[illegible]	[illegible]	2.0	2.5	2.375	2.5	2.875	1.875	1.875
	1.375	1.75	1.875	3.0	2.875	2.375	2.5	[illegible]	[illegible]	2.75	1.875	1.75	2.0	2.5
	1.375	1.75	1.375	2.25	2.375	2.25	2.375	2.75	2.125	2.125	1.75	[illegible]	2.25	[illegible]
	1.625	1.375	1.625	1.625	2.25	[illegible]	2.5	2.25	2.25	[illegible]	1.875	2.25	1.875	[illegible]
	1.5	1.5	1.375	2.75	2.0	1.5	[illegible]	2.625	2.375	3.	1.75	2.25	[illegible]	[illegible]
	1.875	1.875	1.375	[illegible]	2.25	2.375	2.75	2.375	[illegible]	2.5	2.0	1.625	2.75	2.375
	2.0	[illegible]	1.75	2.25	2.75	2.5	2.5	3.75	2.25	[illegible]	1.875	2.0	1.875	[illegible]
	1.375	1.75	1.75	1.875	2.5	2.5	2.5	2.75	2.375	[illegible]	2.25	2.25	[illegible]	2.0
	1.5	1.75	1.75	2.0	2.875	2.0	2.75	2.75	2.375	2.75	2.125	2.375	1.5	2.75
	1.375	1.625	1.625	2.0	2.75	2.375	2.5	2.75	[illegible]	2.875	1.5	1.875	2.875	3.375
	1.5	1.5	1.5	2.25	2.25	2.0	2.875	2.5	2.5	2.5	1.875	1.875	2.25	1.5
	1.75	2.0	1.625	2.125	2.5	3.0	2.625	2.25	2.75	3.0	2.0	[illegible]	3.0	2.25
	1.625	1.625	1.625	2.5	2.25	3.0	2.625	2.375	2.25	2.375	2.375	1.75	2.5	2.125
	1.625	1.875	1.875	1.875	2.5	2.375	2.25	3.375	1.75	2.5	1.875	1.75	2.375	[illegible]
	1.5	2.25	1.5	2.75	2.875	3.0	2.625	2.375	2.875	3.0	2.5	3.25	2.375	2.125
	2.0	1.75	1.5	2.0	2.375	2.0	3.375	2.25	2.875	[illegible]	2.125	1.875	2.0	[illegible]
	1.75	1.75	1.625	2.25	2.125	2.75	2.25	2.5	2.625	1.5	2.125	2.375	1.75	1.75
	1.375	2.125	2.0	2.25	3.	2.375	2.75	2.375	2.75	2.375	2.375	2.0	[illegible]	2.375
	1.75	1.375	1.75	1.875	2.375	2.0	2.25	2.875	2.375	2.375	2.25	2.25	1.875	2.625
	2.0	1.375	1.375	2.0	[illegible]	2.25	2.75	2.0	3.0	2.0	2.625	2.0	2.125	1.875
	2.0	1.625	1.75	2.125	3.125	2.75	2.5	3.375	3.25	[illegible]	3.25	2.625	1.875	[illegible]
Averages	1.675	1.724	1.650	2.246	2.433	2.416	2.425	2.516	[illegible]	2.516	2.187	2.266	2.141	2.191

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:												
Maximum measurements.	B¹	2.125	[illegible]	B¹	3.0	1.1811	B¹	3.375	1.3287	B¹	3.25	[illegible]
	B²	2.25	[illegible]	B²	3.25	1.2795	B²	3.75	1.4763	B²	3.25	1.2795
	B³	3.0	1.1811	B³	3.0	1.1811	B³	3.25	1.2795	B³	3.0	1.1811
							B⁴	3.5	1.3779	B⁴	3.375	1.3287
Highest		3.0	1.1811		3.25	1.2795		3.75	1.4763		3.375	1 3287
Minimum measurements.	B¹	1.375	0.5413	B¹	1.625	0.6397	B¹	1.875	[illegible]	B¹	1.375	0.5413
	B²	1.125	[illegible]	B²	2.0	0.7874	B²	1.25	0.4921	B²	1.625	0.6397
	B³	1.375	0.5413	B³	1.5	0.5905	B³	1.75	0.6889	B³	1.375	0.5413
							B⁴	1.5	0.5905	B⁴	1.25	0.4921
Lowest		1.125	0.4429		1.5	0.5905		1.25	0.4921		1.25	0.4921
Average measurements.	B¹	1.675	[illegible]	B¹	2.246	0.8842	B¹	2.425	0.9547	B¹	2.187	0.8610
	B²	1.724	0.6787	B²	2.433	0.9578	B²	2.516	0.9905	B²	2.266	0.8921
	B³	1.650	0.6496	B³	2.416	0.9511	B³	[illegible]	0.9867	B³	2.141	0.8429
							B⁴	2.516	0.9905	B⁴	2.191	[illegible]
Average		[illegible]	[illegible]		2.365	0.9311		2.487	0.9791		2.196	0.8645
Measurements above average		43			45			70			[illegible]	
Measurements below average		47			45			50			60	

TABLE XXVIII.—*Individual extremes and averages of fineness for commercial grades.*

Catalogue number of samples.	Grade.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length.
			Centi-millime-ters.	Thou-sandths of inch.	Centi-millime-ters.	Thou-sandths of inch.	Centi-millime-ters.	Thou-sandths of inch.	Inches.
	BOSTON GRADES.								
275 *a*	Fine, unwashed	20	2.25	0.8858	1.125	0.4429	1.721	0.6775	2.00
275 *b*	....do	20	3.50	1.3779	1.75	0.6889	2.542	1.0007	2.625
275 *c*	....do	20	3.25	1.2795	1.75	0.6889	2.379	0.9366	1.75
275 *d*	....do	20	2.50	0.9842	1.375	0.5413	1.853	0.7295	2.75
275 *e*	....do	20	4.00	1.5748	1.375	0.5413	2.336	0.9196	2.75
276	Fine, from dead sheep	20	3.00	1.1811	1.00	0.3937	1.835	0.7224	2.50
277 *a*	Picklock	22	2.00	0.7874	1.25	0.4921	1.648	0.6488	1.875
277 *b*	....do	22	2.00	0.7874	1.00	0.3937	1.504	0.5921	2.00
277 *c*	....do	22	2.00	0.7874	1.00	0.3937	1.444	0.5681	2.375
278 *a*	XXX	22	2.00	0.7874	1.00	0.3937	1.519	0.5980	2.375
278 *b*	....do	22	2.25	0.8858	1.00	0.3937	1.515	0.5964	1.75
279 *a*	XX	20	2.75	1.0826	1.00	0.3937	1.843	0.7255	2.125
279 *b*	....do	20	3.25	1.2795	1.00	0.3937	2.022	0.7960	2.50
279 *c*	....do	20	2.625	1.0334	1.00	0.3937	1.760	0.6929	2.125
279 *d*	....do	20	3.00	1.1811	1.25	0.4921	1.856	0.7307	2.25
280 *a*	X	20	3.25	1.2795	1.00	0.3937	2.089	0.8224	1.75
280 *b*	....do	20	3.25	1.2795	1.25	0.4921	1.849	0.7279	2.00
280 *c*	....do	20	3.75	1.4763	1.00	0.3937	2.177	0.8570	2.125
280 *d*	....do	20	3.00	1.1811	1.00	0.3937	1.975	0.7775	2.75
274	Between X and I	20	5.00	1.9685	1.25	0.4921	2.118	0.8338	4.625
281 *a*	No. 1	20	3.50	1.3779	1.25	0.4921	2.443	0.9618	2.00
281 *b*	....do	20	2.50	0.9842	1.25	0.4921	1.864	0.7338	2.25
281 *c*	....do	20	3.50	1.3779	1.50	0.5905	2.393	0.9421	2.50
281 *d*	....do	20	3.50	1.3779	1.25	0.4921	2.153	0.8476	1.75
281 *e*	....do	20	3.00	1.1811	1.25	0.4921	2.108	0.8229	2.50
281 *f*	....do	20	3.25	1.2795	1.25	0.4921	2.257	0.8885	2.375
282 *a*	No. 2	16	4.25	1.6732	1.50	0.5905	2.838	1.1173	3.25
282 *b*	....do	16	4.25	1.6732	1.50	0.5905	2.714	1.0685	2.125
282 *c*	....do	16	4.25	1.6732	2.00	0.7874	3.122	1.2291	2.875
282 *d*	....do	16	5.25	2.0669	1.50	0.5905	2.956	1.1637	3.125
283 *a*	Delaine, fine	20	3.00	1.1811	1.25	0.4921	2.075	0.8169	3.375
283 *b*	....do	20	2.875	1.1318	1.50	0.5905	1.989	0.7830	3.50
283 *c*	....do	20	3.50	1.3779	1.50	0.5905	2.187	0.8610	3.25
284 *a*	Delaine, medium	14	4.25	1.6732	1.125	0.4429	2.333	0.9085	3.625
284 *b*	....do	14	3.75	1.4763	1.50	0.5905	2.732	1.0755	3.125
285 *a*	Combing, fine	14	3.50	1.3779	1.875	0.7380	2.587	1.0185	3.25
285 *b*	....do	14	3.25	1.2795	1.375	0.5413	2.260	0.8897	4.50
285 *c*	....do	14	4.00	1.5748	1.75	0.6889	2.732	1.0755	4.00
286 *a*	Combing, medium	10	4.00	1.5748	1.75	0.6889	2.704	1.0645	4.50
286 *b*	....do	10	4.50	1.7716	1.25	0.4921	2.350	0.9251	4.625
286 *c*	....do	10	4.125	1.6240	1.50	0.5905	2.754	1.0842	5.25
286 *d*	....do	10	3.50	1.3779	1.50	0.5905	2.696	1.0614	4.75
287 *a*	Combing, coarse	.....	4.25	1.6732	2.00	0.7874	3.047	1.1996	6.00
287 *b*	....do	.....	6.00	2.3622	2.50	0.9842	3.811	1.5003	5.50
287 *c*	....do	.....	4.25	1.6732	2.50	0.9842	3.390	1.3346	6.50
287 *d*	....do	.....	6.00	2.3622	1.75	0.6889	3.433	1.3515	6.50
288 *a*	Common	.....	4.25	1.6732	2.50	0.9842	3.359	1.3224	3.00
288 *b*	....do	.....	6.75	2.6574	1.375	0.5413	3.503	1.3791	3.375
289 *a*	New Mexico	.....	3.25	1.2795	1.25	0.4921	2.186	0.8606	2.125
289 *b*	....do	.....	3.75	1.4763	1.75	0.6889	2.755	1.0846	3.00
289 *c*	....do	.....	7.50	2.9527	1.25	0.4921	3.356	1.3212	5.00
	PHILADELPHIA GRADES.								
290	Picklock, best	26	2.875	1.1318	1.25	0.4921	1.669	0.6570	1.625
291	Picklock, fair	26	2.75	1.0826	1.125	0.4429	1.658	0.6527	1.75
292	Picklock, medium	22	2.50	0.9842	1.25	0.4921	1.76	0.6929	1.25
293	Picklock, low	22	2.25	0.8858	0.875	0.3445	1.435	0.5649	2.00
294	XXX, extra	26	2.00	0.7874	0.75	0.2953	1.494	0.5889	2.00
295 *a*	XXX, good	26	2.625	1.0334	1.25	0.4921	1.836	0.7228	1.50
295 *b*	....do	26	2.125	0.8366	0.875	0.3445	1.633	0.6311	2.00
295 *c*	....do	26	2.25	0.8858	1.00	0.3937	1.592	0.6267	2.50
296	XXX, low	22	2.50	0.9842	1.125	0.4429	1.783	0.7019	2.25
297	XX, good	22	2.625	1.0334	1.00	0.3937	1.655	0.6515	2.50
298 *a*	XX, clothing	22	2.625	1.0334	1.50	0.5905	2.091	0.8222	2.25
298 *b*	....do	22	2.50	0.9842	1.25	0.4921	1.847	0.7271	1.625
298 *c*	....do	22	2.625	1.0334	1.00	0.3937	1.822	0.7173	2.00
298 *d*	....do	22	2.75	1.0826	1.25	0.4921	1.857	0.7311	2.375
298 *e*	....do	22	2.75	1.0826	1.00	0.3937	1.679	0.6610	2.75
299	XX, low	20	2.50	0.9842	1.00	0.3937	1.736	0.6834	2.00
300	X, good	20	2.75	1.0826	1.25	0.4921	1.835	0.7224	2.00
301 *a*	X, fair	20	3.50	1.3779	1.00	0.3937	1.975	0.7775	2.25
301 *b*	....do	20	2.75	1.0826	0.75	0.2953	1.889	0.7436	1.625
302	X, low	20	2.75	1.0826	1.125	0.4429	1.911	0.7523	2.125
303	Delaine, fine	20	2.75	1.0826	1.25	0.4921	1.924	0.7574	2.50
304	Delaine, very fine	20	2.50	0.9842	1.25	0.4921	1.946	0.7661	2.625
305 *a*	X and above	22	2.875	1.1318	1.25	0.4921	2.186	0.8606	1.75
305 *b*	....do	22	3.50	1.3779	1.50	0.5905	2.079	0.8185	2.25
306 *a*	....do	22	2.75	1.0826	1.50	0.5905	2.014	0.7929	2.375
306 *b*	....do	22	2.625	1.0326	1.125	0.4429	1.706	0.6716	2.75
306 *c*	....do	22	2.50	0.9842	1.25	0.4921	1.726	0.6795	2.25
307 *a*	....do	20	3.25	1.2795	1.25	0.4921	2.037	0.8019	1.875
307 *b*	....do	20	2.875	1.1318	1.00	0.3937	2.092	0.8236	1.75
307 *c*	....do	20	2.75	1.0826	1.25	0.4921	2.059	0.8106	1.50
307 *d*	....do	20	2.50	0.9842	1.25	0.4921	1.854	0.7299	1.75
307 *e*	....do	20	3.00	1.1811	1.25	0.4921	1.873	0.7374	3.25
308 *a*	One-fourth blood, good	14	3.50	1.3779	1.50	0.5905	2.399	0.9444	3.00
308 *b*	....do	14	3.25	1.2795	1.50	0.5905	2.46	0.9685	1.50
308 *c*	....do	14	3.50	1.3779	1.25	0.4921	2.249	0.8854	2.75
308 *d*	....do	14	4.00	1.5748	1.25	0.4921	2.506	0.9866	3.75
309 *a*	Combing	14	4.00	1.5748	1.50	0.5905	2.356	0.9275	3.375
309 *b*	....do	14	3.75	1.4763	1.00	0.3937	2.410	0.9484	3.50
310 *a*	Combing, low	.....	5.00	1.9685	2.00	0.7874	3.467	1.3649	5.00
310 *b*	....do	.....	5.375	2.1161	1.875	0.7380	3.436	1.3527	6.25
310 *c*	....do	.....	6.00	2.3622	1.50	0.5905	3.621	1.4255	5.00
311 *a*	Three-eighths blood, good	14	4.25	1.6732	1.25	0.4921	2.362	0.9299	2.625
311 *b*	....do	14	3.75	1.4763	1.625	0.6397	2.735	1.0767	2.125

TABLE XXVIII.—*Individual extremes and averages of fineness for commercial grades*—Continued.

Catalogue number of samples.	Grade.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length.
			Centi-millimeters.	Thousandths of inch.	Centi-millimeters.	Thousandths of inch.	Centi-millimeters.	Thousandths of inch.	Inches.
	PHILADELPHIA GRADES—continued.								
311 *c*	Three-eighths blood, good	14	3.75	1.4763	1.25	0.4921	2.619	1.0311	2.50
311 *d*	..... do	14	3.00	1.1811	1.00	0.3937	2.076	0.8173	3.125
312	Combing	.....	4.25	1.6732	1.25	0.4921	2.563	1.0090	2.75
313 *a*	Three-eighths and one-half blood	10	4.25	1.6732	1.25	0.4921	2.547	1.0027	2.625
313 *b*	..... do	10	4.00	1.5748	1.50	0.5905	2.617	1.0303	3.00
313 *c*	..... do	10	3.75	1.4763	1.625	0.6397	2.375	0.9350	3.25
314 *a*	One-half blood, high	20	3.125	1.2303	1.25	0.4921	1.839	0.7240	1.875
314 *b*	..... do	20	2.375	0.9350	1.25	0.4921	1.742	0.6858	2.75
315 *a*	One-half blood, regular	.....	3.625	1.4271	1.75	0.6889	2.318	0.9125	1.75
315 *b*	..... do	.....	3.00	1.1811	1.375	0.5413	2.15	0.8464	1.875
316	Combing, washed	[illegible]	3.25	1.2795	1.125	0.4429	2.162	0.8511	3.125
317 *a*	Five-eighths blood	20	2.875	1.1318	1.125	0.4429	1.989	0.7830	2.00
317 *b*	..... do	20	3.75	1.4763	1.25	0.4921	2.033	0.8003	2.25
317 *c*	..... do	[illegible]	3.00	1.1811	1.25	0.4921	1.969	0.7751	2.125
318	Cotts	.....	4.75	1.8700	1.50	0.5905	2.686	1.1047	3.25
319 *a*	Imported Saxon	26	2.50	0.9842	1.25	0.4921	1.734	0.6826	0.75
319 *b*	..... do	26	1.75	0.6889	0.75	0.2953	1.335	0.5255	1.25
320	Domestic Saxon	26	2.75	1.0826	0.875	0.3445	1.828	0.5228	1.125

TABLE XXIX.—*General extremes and averages of fineness for commercial grades.*

[Reduced from Table XXVIII.]

Catalogue number of samples.	Grade.	Number of crimps per inch.	Highest.		Lowest.		Average.		Length.
			Centi-millimeters.	Thousandths of inch.	Centi-millimeters.	Thousandths of inch.	Centi-millimeters.	Thousandths of inch.	Inches.
	BOSTON GRADES.								
275	Fine, unwashed	20	3.10	1.2204	1.475	0.5807	2.162	0.8511	2.355
276	Fine, from dead sheep	20	3.00	1.1811	1.00	0.3937	1.835	0.7224	2.50
277	Picklock	22	2.00	0.7874	1.083	0.4263	1.532	0.6031	2.083
278	XXX	22	2.125	0.8366	1.00	0.3937	1.567	0.6169	2.063
279	XX	20	2.906	1.1440	1.063	0.4185	1.870	0.7362	2.250
280	X	20	3.313	1.3043	1.063	0.4185	2.023	0.7964	2.156
274	Between X and No. 1	20	5.00	1.9685	1.25	0.4921	2.118	0.8338	4.625
281	No. 1	20	3.208	1.2629	1.292	0.5086	2.203	0.8673	2.229
282	No. 2	16	4.50	1.7716	1.625	0.6297	2.908	1.1448	2.844
283	Delaine, fine	20	3.125	1.2303	1.617	0.6366	2.084	0.8204	3.375
284	Delaine, medium	14	4.00	1.5748	1.313	0.5169	2.533	0.9972	3.375
285	Combing, fine	14	3.583	1.4106	1.667	0.6562	2.526	0.9944	3.917
286	Combing, medium	10	4.021	1.5870	1.50	0.5905	2.626	1.0338	4.781
287	Combing, coarse	.....	5.125	2.0177	2.188	0.8614	3.42	1.3464	6.125
288	Common	.....	5.50	2.1653	1.938	0.7629	3.431	1.3507	3.1875
289	New Mexico	.....	4.50	1.7716	1.617	0.6366	2.766	1.0889	3.375
	PHILADELPHIA GRADES.								
290	Picklock, best	26	2.875	1.1318	1.25	0.4921	1.669	0.6570	1.625
291	Picklock, fair	26	2.75	1.0826	1.125	0.4429	1.658	0.6527	1.75
292	Picklock, medium	22	2.50	0.9842	1.25	0.4921	1.76	0.6929	1.25
293	Picklock, low	22	2.25	0.8858	0.875	0.3445	1.435	0.5469	2.00
294	XXX, extra	26	2.00	0.7874	0.75	0.2953	1.494	0.5889	2.00
295	XXX, good	26	2.333	0.9035	1.042	0.4102	1.687	0.6641	2.00
296	XXX, low	22	2.50	0.9842	1.125	0.4429	1.783	0.7019	2.25
297	XX, good	22	2.625	1.0334	1.00	0.3937	1.655	0.6515	2.50
298	XX, clothing	22	2.65	1.0433	1.20	0.4724	1.859	0.7318	2.20
299	XX, low	20	2.50	0.9842	1.00	0.3937	1.736	0.6834	2.00
300	X, good	20	2.75	1.0826	1.25	0.4921	1.835	0.7224	2.00
301	X, fair	20	3.125	1.2303	0.875	0.3445	1.932	0.7606	1.9375
302	X, low	20	2.75	1.0826	1.125	0.4429	1.911	0.7523	2.125
303	Delaine, fine	20	2.75	1.0826	1.25	0.4921	1.924	0.7574	2.50
304	Delaine, very fine	20	2.50	1.9842	1.25	0.4921	1.946	0.7661	2.625
305	X and above	22	3.188	1.2551	1.375	0.5413	2.133	0.8397	2.00
306	....do	22	3.625	1.4271	1.292	0.5086	1.949	0.7673	2.458
307	....do	20	2.875	1.1318	1.20	0.4724	1.983	0.7807	2.025
308	One-quarter blood, good	14	3.563	1.4027	1.375	0.5413	2.404	0.9464	2.75
309	One-quarter combing	14	3.875	1.5255	1.25	0.4921	2.383	0.9381	3.4375
310	Combing, low	.....	5.458	2.1488	1.792	0.7055	3.508	0.3810	5.417
311	Three-eighths blood, good	14	3.688	1.4519	1.281	0.5043	2.573	1.0129	2.594
312	Three-eighths combing	.....	4.25	1.6732	1.25	0.4921	2.563	1.0090	2.75
313	Three-eighths and one-half blood	10	4.00	1.5748	1.458	0.5739	2.513	0.9893	2.958
314	One-half blood, high	20	2.75	1.0826	1.25	0.4921	1.791	0.7051	2.3125
315	One-half blood, regular	.....	3.312	1.3039	1.563	0.6153	2.234	0.8795	1.8125
316	Combing, washed	20	3.25	1.2795	1.125	0.4429	2.162	0.8511	3.125
317	Five-eighths blood	20	3.208	1.2629	1.208	0.4755	1.997	0.7862	2.125
318	Cotts	.....	4.75	1.8700	1.50	0.4905	2.806	1.1047	3.25
319	Saxon, imported	26	2.125	0.8366	1.00	0.3937	1.535	0.6043	1.00
320	Saxon, domestic	26	2.75	1.0826	0.875	0.3445	1.328	0.5228	1.125
	GERMAN WOOLS.								
1	Super, superelecta	34	2.375	0.9350	1.375	0.5413	1.923	0.7570	1.125
2	....do	34	1.875	0.7381	0.75	0.2952	1.397	0.5499	1.00
3	Superelecta	30	2.375	0.9350	1.00	0.3937	1.655	0.6515	1.75
4	....do	30	2.25	0.8858	1.125	0.4429	1.639	0.6452	1.25
5	I, electa	27	2.50	0.9842	1.25	0.4921	1.662	0.6543	1.25
6	....do	27	2.50	0.9842	1.125	0.4429	1.664	0.6551	1.125
7	II, electa	25	2.75	1.0826	1.00	0.3937	1.535	0.6043	1.25
8	....do	25	1.875	0.7381	1.00	0.3937	1.504	0.5921	1.125
9	I, prima	22	2.25	0.8858	1.375	0.5413	1.705	0.6712	1.375
10	....do	22	2.125	0.8366	1.125	0.4429	1.705	0.6712	1.25
11	II, prima	20	2.50	0.9842	1.125	0.4429	1.98	0.7511	1.375
12	....do	20	2.875	1.1318	1.25	0.4921	1.794	0.7062	1.375
13	Secunda	16	3.00	1.1811	1.50	0.5905	2.089	0.8224	1.50
14	Tertia	16	2.875	1.1318	1.375	0.5413	1.978	0.7787	1.25
15	Quarta	14	3.50	1.3779	1.25	0.4921	2.257	0.8885	1.50
16	High-pedigree wool	20	3.00	1.1811	1.125	0.4429	1.953	0.7688	1.25
17	....do	25	2.375	0.9350	1.25	0.4921	1.682	0.6621	1.25
18	Pure bred, ancient pedigree	22	3.00	1.1811	1.125	0.4429	1.894	0.7456	1.875
19	Impure bred wool	25	2.375	0.9350	1.125	0.4429	1.661	0.6539	1.25
20	French ram	16	3.25	1.2795	1.375	0.5413	2.136	0.8409	3.50
21	Rambouillet	20	3.00	1.1811	1.375	0.5413	2.120	0.8346	3.125
22	English merino	.....	2.25	0.8858	1.125	0.4429	1.615	0.6358	.....
23	Australian ewe	16	3.00	1.1811	1.125	0.4429	1.683	0.6625	1.625
24	Roger ram	16	3.25	1.2795	1.50	0.5905	2.365	0.9311	2.125
25	Rambouillet ewe	20	3.75	1.4763	1.25	0.4921	2.487	0.9791	4.125
26	Rambouillet ewe	16	3.375	1.3287	1.25	0.4921	2.196	0.8645	4.00

TABLE XXX.—*Actual measurements of strain and stretch for commercial grades.*

A.—BOSTON GRADES.

Catalogue number of samples..	274.				275a.				275b.				275c.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	3.00	0.75	3.00	3.75	2.75	5.75	4.00	5.75	12.00	6.50	6.25	8.00	4.50	7.00	5.25	6.00
	3.75	1.25	5.25	2.75	4.00	4.75	3.25	3.50	11.25	7.75	6.00	7.75	4.50	4.50	5.75	6.75
	8.00	3.50	4.50	1.75	5.25	7.50	2.25	4.50	14.00	7.00	5.25	4.50	5.50	6.50	4.25	3.25
	2.75	1.50	5.00	1.25	3.25	2.75	3.50	6.00	10.00	6.00	7.50	3.00	6.50	7.50	5.50	6.25
	3.50	3.25	1.75	1.25	3.25	2.50	2.75	1.75	7.00	5.00	7.25	4.75	5.00	5.25	3.25	5.50
	2.75	1.75	7.00	5.75	4.50	7.50	3.25	4.50	9.75	8.50	6.50	4.50	4.25	3.25	3.75	1.00
	5.00	5.00	4.00	4.50	2.00	2.25	3.00	4.50	7.00	5.50	3.50	2.50	5.50	7.00	5.25	7.00
	4.50	2.75	3.50	1.75	2.50	3.75	3.50	5.50	6.00	6.00	9.25	6.50	7.25	6.00	5.25	5.00
	3.75	5.00	2.50	3.75	2.25	1.50	2.00	2.75	8.00	8.25	7.00	6.00	3.25	2.00	6.50	6.75
	3.00	1.00	1.50	2.00	3.75	4.25	3.25	4.75	8.25	7.50	6.00	4.00	7.50	7.75	5.25	5.75
	3.25	5.75	2.25	2.00	2.50	4.75	4.00	5.50	4.50	4.25	7.50	4.00	5.00	5.25	4.00	2.75
	2.00	5.50	2.75	1.75	2.75	3.00	3.25	7.00	5.00	6.00	6.00	2.50	4.50	5.00	7.75	6.00
	4.00	4.00	3.75	2.50	4.50	7.25	4.75	6.75	6.00	5.25	8.00	5.75	4.50	5.75	5.50	6.50
	2.25	1.50	5.00	6.00	3.00	6.00	4.00	8.25	4.00	1.75	11.00	7.75	7.75	7.25	7.00	7.00
	3.50	1.00	10.00	4.00	2.75	5.75	3.75	6.50	7.50	5.50	9.25	7.00	4.75	6.25	3.50	1.25
Total	56.00	43.50	61.75	45.75	62.00	70.25	50.50	74.00	123.25	91.25	106.25	78.50	80.25	88.25	77.75	74.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	10.00	154.34	6.00	30.00	5.25	81.03	8.25	41.25	14.00	216.08	8.50	42.50	7.75	119.61	7.75	38.75
Lowest	1.50	23.15	0.75	3.75	2.00	30.86	1.50	7.50	3.50	54.02	1.75	8.75	3.25	50.16	1.00	5.00
Average	3.92	60.50	2.97	14.85	3.31	51.08	4.80	24.00	7.65	118.07	5.65	28.25	5.26	81.18	5.43	27.15
Tests above average	11		13		11		14		12		10		11		17	
Tests below average	19		17		19		16		18		14		19		13	

A.—BOSTON GRADES.

Catalogue number of samples..	275d.				275e.				276.				277a.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	3.25	3.50	4.50	4.25	5.00	3.25	7.00	5.25	5.00	6.25	3.75	3.25	2.80	2.75	2.75	6.25
	3.75	7.75	3.00	5.50	9.75	7.50	5.75	5.00	3.50	6.00	3.50	5.00	2.75	7.75	3.25	6.50
	4.00	2.50	3.50	7.00	6.75	3.75	4.50	2.50	4.50	7.25	4.00	6.50	3.25	7.50	2.00	5.25
	5.75	7.00	3.50	7.25	7.00	3.75	7.50	6.00	3.75	6.00	5.50	8.50	3.25	7.75	2.00	4.00
	4.00	6.00	3.75	7.25	4.00	2.00	5.25	4.75	5.50	5.50	3.25	7.25	2.00	5.00	1.25	1.50
	2.50	3.25	5.00	5.75	6.25	4.75	3.50	2.25	4.00	2.50	4.00	7.00	1.75	5.75	3.25	7.50
	3.25	7.50	4.00	8.25	7.25	6.75	2.00	6.75	7.00	9.00	6.50	6.75	3.00	7.50	2.00	6.50
	3.50	8.50	5.25	9.25	9.50	6.00	5.00	2.00	4.25	5.25	2.50	5.00	2.25	5.25	3.50	4.25
	2.50	1.25	6.00	8.25	8.50	3.50	6.00	6.00	5.00	2.25	3.00	3.50	1.50	1.75	1.25	1.25
	2.25	2.25	4.50	7.25	6.50	7.50	6.50	7.25	2.50	8.00	3.50	5.00	2.50	7.25	1.00	1.50
	6.00	9.00	3.25	6.75	6.75	5.50	9.50	8.00	5.00	8.75	4.00	7.50	2.00	3.50	1.75	4.75
	3.00	4.00	3.75	7.25	9.50	8.25	6.50	7.50	3.50	8.25	5.00	7.00	1.50	5.25	2.00	4.00
	4.00	8.50	4.25	7.50	5.00	3.00	8.00	7.25	5.00	6.25	5.50	8.25	3.00	8.00	2.50	3.50
	4.00	6.00	2.25	4.50	4.00	1.50	8.00	4.25	6.25	7.75	3.75	7.75	2.25	5.00	3.50	5.75
	4.75	7.50	4.25	8.75	4.50	6.00	7.75	5.75	4.25	5.75	3.25	5.50	1.25	3.25	2.00	5.25
Total	56.50	84.50	58.75	105.00	103.25	73.00	98.75	80.50	69.00	100.75	61.00	93.75	34.25	83.75	34.00	74.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	6.00	92.60	9.25	46.25	9.75	150.48	8.25	41.25	7.00	108.04	9.00	45.00	3.50	54.02	3.75	18.75
Lowest	2.25	34.72	1.25	6.25	4.00	61.74	1.50	7.50	2.50	38.58	2.50	12.50	1.00	15.43	1.25	6.25
Average	3.84	59.26	6.31	31.55	6.73	103.87	5.11	25.55	4.33	66.83	6.48	32.40	2.27	35.03	5.28	26.40
Tests above average	14		18		10		10		13		10		11		14	
Tests below average	16		12		14		14		13		14		17		16	

TABLE XXX.—*Actual measurements of strain and stretch for commercial grades*—Continued.

A.—BOSTON GRADES.

Catalogue number of samples..	277b.				277c.				278a.				278b.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	2.50	6.00	2.00	6.25	2.25	8.50	1.75	4.75	2.25	8.00	2.25	8.25	4.50	7.50	6.00	7.00
	2.25	7.50	2.75	7.75	2.00	7.75	2.50	8.25	2.00	7.00	2.25	6.00	3.75	6.00	3.00	6.75
	3.00	3.50	3.25	3.00	3.00	9.00	1.50	8.00	2.00	7.00	1.50	5.75	5.50	8.25	2.00	1.50
	1.50	6.75	1.25	2.25	1.75	7.50	1.50	8.75	2.00	8.25	3.25	6.75	2.25	5.75	3.00	7.00
	1.50	7.25	3.00	6.25	2.00	8.00	2.00	8.00	1.75	7.50	2.75	3.75	2.00	1.75	2.50	6.25
	2.25	7.75	2.00	8.00	1.75	7.75	2.00	9.00	2.50	8.00	3.00	5.75	4.75	7.00	3.25	6.25
	3.00	8.75	2.00	7.50	2.00	7.00	2.25	8.50	2.00	8.25	2.00	5.75	3.00	6.50	4.00	3.75
	2.25	8.25	2.25	7.50	1.50	6.25	1.50	5.00	1.25	4.25	2.50	7.75	5.00	5.75	2.50	5.75
	2.25	8.50	1.50	5.25	2.50	8.00	2.00	8.00	3.50	8.50	2.25	6.50	2.50	6.25	2.00	6.25
	2.75	6.25	2.00	6.75	2.25	8.50	2.50	9.75	2.25	9.25	2.50	4.50	3.50	6.50	4.00	8.25
	1.75	6.25	2.00	7.75	1.50	8.00	2.50	8.00	2.00	6.25	2.50	4.25	4.25	8.25	4.25	6.75
	3.00	8.00	1.75	6.00	1.25	5.50	2.25	8.25	1.25	7.00	3.25	7.00	3.25	7.75	3.75	7.00
	2.00	7.00	3.00	7.50	2.00	7.00	2.75	8.25	2.25	7.00	3.25	6.00	3.25	7.75	2.50	6.00
	1.50	3.25	1.75	7.00	2.00	8.00	1.75	9.25	2.50	6.50	1.50	2.50	3.00	6.25	4.00	7.25
	2.00	8.00	2.00	8.50	1.75	8.50	1.25	6.25	2.00	6.00	2.25	3.25	3.25	6.75	2.25	6.00
Total	33.50	103.00	32.55	97.25	29.50	115.25	30.00	118.00	31.50	108.75	37.00	83.75	53.75	98.00	49.00	91.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	3.25	50.16	8.75	43.75	3.00	46.30	9.75	48.75	3.50	54.02	9.25	46.25	6.00	92.60	8.25	41.25
Lowest	1.25	19.29	3.25	16.25	1.25	19.29	4.75	23.75	1.25	19.29	2.50	12.50	2.00	30.86	1.50	7.50
Average	2.20	33.95	6.67	33.35	1.98	30.56	7.77	38.85	2.28	35.19	6.41	32.05	3.42	52.78	6.32	31.60
Tests above average	14		19		18		20		11		17		13		16	
Tests below average	16		11		12		10		19		13		17		14	

A.—BOSTON GRADES.

Catalogue number of samples..	279a.				279b.				279c.				279d.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	[illegible]
Actual measurement in grams and millimeters.	4.00	4.00	4.50	4.00	8.25	4.00	6.00	7.25	3.00	2.00	2.25	1.25	6.75	7.50	3.50	4.25
	3.00	3.75	3.50	5.75	8.75	5.00	7.50	6.50	3.50	3.75	4.50	6.00	4.75	7.00	4.25	6.00
	3.00	3.50	2.25	2.00	7.50	8.00	6.00	4.50	3.00	2.00	3.00	3.00	5.00	6.00	3.75	7.50
	2.25	4.00	5.00	4.50	4.00	2.25	5.25	5.00	5.00	3.00	7.00	4.25	4.00	3.50	4.50	3.50
	3.00	3.00	3.25	4.00	4.00	2.25	4.50	6.50	4.25	2.75	4.25	2.00	5.00	4.75	3.25	3.00
	4.00	4.25	3.75	3.25	5.00	5.00	4.50	5.50	5.50	2.25	3.50	3.75	5.25	7.00	5.00	6.75
	3.25	4.25	6.00	6.50	6.25	7.00	10.00	6.50	6.00	7.00	4.00	5.25	4.50	2.75	5.50	[illegible]
	6.75	5.25	5.00	4.50	3.25	3.25	7.75	6.75	4.00	2.00	4.75	4.25	4.00	2.75	3.25	[illegible]
	4.00	2.00	4.50	5.00	9.00	6.25	4.00	6.75	3.25	5.00	5.00	2.75	4.50	6.25	3.50	2.25
	4.75	2.75	3.50	5.00	4.00	3.00	5.00	2.50	1.50	1.00	3.75	3.50	4.25	6.00	3.00	2.75
	3.25	2.00	4.25	3.25	4.50	4.25	4.00	3.50	4.00	3.50	2.50	1.50	3.26	3.75	4.00	3.75
	4.75	6.00	4.25	6.25	12.50	7.00	5.00	7.75	3.00	2.00	5.75	5.00	5.25	5.75	3.75	[illegible]
	4.75	3.75	4.75	5.75	6.00	7.00	4.00	2.25	6.75	6.50	6.25	3.25	3.50	3.25	4.75	7.00
	4.00	4.75	4.00	5.50	7.50	7.75	5.00	6.00	3.75	4.50	6.00	6.00	3.50	2.50	5.00	4.00
	4.00	4.50	4.25	4.50	7.00	6.75	7.00	5.50	2.50	2.25	2.50	3.00	4.50	3.75	5.00	4.50
Total	58.75	57.75	62.75	69.75	97.50	78.75	85.50	82.75	59.00	49.50	65.00	54.75	68.00	72.50	62.00	70.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	6.75	104.18	6.50	32.50	12.50	192.93	8.00	40.00	7.00	108.14	7.00	35.00	6.75	104.18	7.50	37.50
Lowest	2.25	34.72	2.00	10.00	3.25	50.16	2.25	11.25	1.50	23.15	1.00	5.00	3.00	46.30	2.50	12.50
Average	4.05	62.51	4.25	21.25	6.10	94.15	5.38	26.90	4.13	63.74	3.47	17.35	4.33	66.83	4.25	23.75
Tests above average	13		13		12		17		13		17		14		13	
Tests below average	17		15		13		13		17		13		16		16	

TABLE XXX.—*Actual measurements of strain and stretch for commercial grades*—Continued.

A.—BOSTON GRADES.

Catalogue number of samples..	280a.				280b.				280c.				280d.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	6.50	7.75	6.00	2.25	4.50	8.00	3.25	6.00	4.50	6.00	10.00	8.50	5.25	4.00	3.50	8.00
	4.75	4.00	4.25	7.25	5.00	5.25	4.00	4.75	5.50	7.00	4.75	7.00	5.00	8.25	5.75	7.00
	6.75	5.50	6.25	2.25	5.75	2.50	5.50	5.50	7.00	8.50	4.50	6.75	6.50	2.75	5.00	6.50
	6.25	5.75	5.25	1.50	5.25	6.25	3.25	2.25	10.25	6.00	7.50	8.00	5.50	5.50	8.50	6.75
	4.50	2.50	4.25	2.00	5.75	7.75	3.25	2.00	5.50	7.75	3.00	5.75	3.00	4.75	5.50	5.25
	4.75	6.00	7.50	5.75	3.00	4.75	6.25	8.75	4.00	4.75	6.75	5.50	7.25	8.00	7.00	5.50
	3.50	4.50	5.00	3.50	3.75	7.25	3.50	3.00	4.75	7.75	7.50	9.50	9.25	7.00	4.00	2.00
	3.75	3.25	8.00	5.00	7.75	7.25	5.25	6.00	5.50	9.00	4.00	4.50	7.75	6.00	4.00	7.25
	3.75	2.25	3.25	3.25	5.25	6.75	5.00	7.50	6.25	7.50	4.50	8.50	5.75	6.75	5.00	7.75
	3.50	6.25	5.75	6.00	6.00	7.50	4.50	3.00	5.50	4.25	5.75	5.25	8.00	3.75	7.25	8.50
	6.50	2.75	5.00	6.75	6.00	8.50	7.25	8.00	6.00	6.25	6.25	5.75	3.50	3.50	2.50	6.00
	2.00	2.00	5.00	7.00	4.75	1.50	4.75	5.00	10.00	9.50	5.50	6.50	3.50	3.00	4.75	6.00
	6.25	2.25	5.00	3.25	4.50	4.25	3.75	5.00	7.50	8.50	5.00	3.50	4.75	5.75	4.75	2.25
	8.25	8.00	7.25	6.75	3.75	4.25	8.50	8.75	9.50	6.50	6.25	7.50	6.25	7.25	5.50	8.00
	7.00	8.50	3.50	4.25	3.00	4.50	3.75	5.50	9.00	7.00	7.75	7.50	6.75	5.00	5.25	8.25
Total	78.00	71.25	81.25	66.75	74.00	85.25	71.75	81.00	100.75	106.25	89.00	103.00	88.00	81.25	78.25	96.00

Recapitulation:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	8.25	127.33	8.50	42.50	8.50	131.19	8.75	43.75	10.25	158.20	9.50	47.50	9.25	142.76	8.50	42.50
Lowest	2.00	30.86	1.50	7.50	3.00	46.30	1.50	7.50	3.00	46.30	3.50	17.50	2.50	38.58	2.00	10.00
Average	5.30	81.80	4.60	23.00	4.85	74.85	5.57	27.85	6.32	97.54	6.07	34.85	5.54	85.50	5.90	47.50
Tests above average	13		14		14		14		11		17		12		17	
Tests below average	17		16		16		16		19		13		18		13	

A.—BOSTON GRADES.

Catalogue number of samples..	281a.				281b.				281c.				281d.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	12.75	6.50	6.00	5.50	3.00	2.25	3.75	6.75	7.00	2.50	8.00	8.25	4.75	4.50	2.50	1.50
	5.25	4.50	5.00	2.50	4.25	3.75	5.75	5.25	8.00	3.75	5.00	4.50	4.00	4.25	5.75	5.50
	6.75	7.50	11.25	3.75	5.00	4.25	3.00	2.75	7.25	3.75	9.00	5.00	7.00	2.25	7.50	4.25
	9.75	3.25	13.00	4.25	3.50	5.75	3.25	5.00	3.50	3.25	8.00	2.50	7.75	3.25	3.50	1.50
	7.00	5.00	8.50	4.25	4.25	7.00	3.50	2.75	8.25	3.25	7.75	3.75	5.50	3.25	8.00	3.75
	8.00	6.00	9.00	2.75	4.00	3.25	5.50	4.50	5.00	4.25	6.25	3.25	5.50	2.75	5.25	3.75
	13.00	9.25	7.00	2.00	5.25	5.25	4.00	3.00	6.00	4.50	6.25	7.25	9.00	4.25	4.50	4.50
	6.50	6.25	9.50	4.00	5.50	5.75	5.25	4.75	10.00	6.25	8.75	2.75	2.50	1.50	4.50	2.00
	6.50	4.25	6.50	7.00	5.25	5.00	3.50	3.50	7.50	5.25	7.75	4.00	5.00	4.75	7.25	2.25
	9.25	7.25	7.25	7.50	5.25	7.50	5.50	3.00	7.00	5.00	8.25	5.00	4.75	1.50	7.00	5.00
	5.50	6.00	7.50	4.50	4.50	6.75	5.75	7.25	7.00	3.50	4.25	3.00	6.50	2.50	7.00	5.50
	9.25	2.50	9.00	3.25	4.75	4.50	5.50	5.75	10.00	2.50	6.25	2.50	4.50	1.50	4.00	4.00
	9.00	4.50	12.00	6.50	4.50	6.75	4.00	4.25	7.25	5.25	7.50	2.50	3.50	1.75	4.25	2.00
	9.00	4.75	9.00	5.50	4.00	4.75	3.75	3.75	8.25	3.75	7.25	4.00	5.00	6.00	5.50	4.75
	8.00	3.00	5.50	4.00	4.25	6.50	4.25	2.25	6.75	2.00	8.50	3.00	3.00	2.00	4.00	2.00
Total	125.50	74.50	125.00	67.25	67.25	79.00	66.25	62.50	106.75	61.75	105.75	58.25	77.25	46.00	79.50	52.25

Recapitulation:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	13.00	200.64	7.50	37.50	5.75	88.74	7.50	37.50	10.00	154.34	7.25	36.25	5.00	123.48	6.00	30.00
Lowest	5.00	77.17	2.00	10.00	3.00	46.30	2.25	11.25	3.50	54.02	2.00	10.00	2.50	38.58	1.50	7.50
Average	8.35	128.87	4.72	23.60	4.45	68.68	4.71	23.55	7.08	109.27	4.00	20.00	5.22	80.56	3.27	16.35
Tests above average	15		13		14		15		14		12		14		14	
Tests below average	15		17		16		15		14		16		16		16	

TABLE XXX.—*Actual measurements of strain and stretch for commercial grades*—Continued.

A.—BOSTON GRADES.

Catalogue number of samples..	281*c*.				281*f*.				282*a*.				282*b*.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	4.50	1.25	4.75	3.50	7.50	7.75	7.25	2.50	10.00	4.50	6.00	2.75	9.00	3.25	9.25	6.25
	5.00	3.50	4.25	2.50	6.50	2.00	5.25	2.25	13.25	3.00	13.75	7.00	7.25	7.75	14.75	8.00
	6.00	1.75	2.50	1.75	6.00	6.25	6.50	7.75	10.75	3.75	5.50	4.25	14.00	7.75	8.25	2.75
	5.25	1.75	5.00	2.50	7.75	2.25	7.00	7.50	5.50	2.75	6.00	3.50	6.75	1.50	5.50	5.25
	4.00	1.75	6.00	4.25	7.50	7.00	4.50	2.00	5.00	1.25	9.50	1.50	7.25	3.75	7.50	5.00
	6.00	2.25	3.25	5.00	6.00	2.75	5.00	2.75	6.75	1.75	9.50	6.75	6.25	3.75	8.50	2.50
	5.50	3.25	4.50	3.00	5.50	7.00	6.75	4.25	8.00	5.75	5.50	6.00	13.00	6.75	11.25	5.75
	3.75	1.00	7.25	1.50	5.50	5.00	8.75	7.25	12.00	4.50	12.50	1.25	9.75	6.75	9.25	6.00
	7.50	2.25	4.00	1.00	6.00	5.50	7.25	5.25	15.75	5.75	11.00	7.00	12.75	6.25	5.50	7.25
	3.50	1.75	4.00	4.25	5.50	2.25	4.25	2.00	11.50	6.75	14.25	6.25	11.75	6.50	11.00	3.75
	5.00	2.50	7.00	5.00	7.75	4.00	5.00	1.50	8.25	2.50	17.25	7.25	6.00	3.75	6.75	2.00
	3.00	1.00	3.25	5.50	5.75	3.00	6.50	3.75	8.00	6.00	12.25	7.25	12.25	5.50	7.50	6.75
	7.75	5.00	4.25	5.75	8.25	7.00	5.50	5.50	11.50	4.75	16.00	7.75	15.50	8.75	10.00	2.00
	5.50	3.00	7.00	1.50	5.50	2.00	6.00	6.75	9.75	4.00	7.50	4.75	8.75	7.50	12.00	6.50
	3.75	6.00	6.25	2.25	6.00	5.25	6.75	3.00	5.50	2.00	10.25	3.25	14.00	8.75	12.00	7.00
Total	76.00	38.00	73.25	49.25	97.00	69.00	92.25	64.00	141.50	59.00	156.75	76.50	154.25	88.25	139.00	76.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	7.75	119.61	6.00	30.00	6.30	97.23	4.43	22.15	17.25	265.24	7.75	38.75	15.50	239.23	8.75	43.75
Lowest	2.50	38.58	1.00	5.00	8.75	135.05	7.75	38.75	5.00	77.17	1.25	6.25	5.50	84.89	1.50	7.50
Average	4.97	76.70	2.90	14.50	4.25	65.59	1.50	7.50	9.94	153.41	4.51	22.55	9.77	150.79	5.50	27.50
Tests above average	15		13		15		14		15		14		13		17‡	
Tests below average	15		17		15		16		15		16		17		12‡	

A.—BOSTON GRADES.

Catalogue number of samples..	282*c*.				282*d*.				283*a*.				283*b*.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	12.25	5.25	14.50	1.75	6.50	3.50	9.50	2.00	4.50	3.00	9.25	7.50	4.75	7.00	3.50	4.00
	13.00	3.75	16.75	7.75	11.50	3.25	9.25	2.25	5.50	2.25	6.75	5.25	4.00	5.25	5.50	7.25
	13.25	3.00	16.00	4.75	8.00	3.50	7.50	2.25	5.50	8.25	3.50	3.00	4.75	5.25	4.50	4.25
	21.00	7.50	16.00	6.75	10.75	4.75	7.00	4.50	7.25	6.00	5.75	4.00	5.50	6.50	3.00	5.00
	8.00	2.00	8.75	1.25	12.25	4.50	10.00	4.50	7.25	8.25	8.00	5.50	3.25	6.25	7.50	6.75
	13.75	1.75	17.00	7.50	6.75	6.25	10.50	2.50	4.00	4.75	8.75	6.50	3.25	3.25	4.50	5.75
	16.00	1.25	23.00	6.75	7.00	3.00	9.50	3.25	5.50	1.50	8.50	8.25	5.00	4.50	5.00	5.75
	16.75	8.50	17.50	3.00	16.50	7.00	12.00	5.00	5.00	5.50	4.00	7.50	7.00	7.25	4.00	6.00
	14.50	7.00	12.25	4.00	15.00	6.75	8.75	5.00	4.50	5.00	5.00	1.25	4.00	2.50	3.50	5.75
	13.00	4.75	12.50	5.00	13.50	5.00	9.25	4.75	5.00	2.50	8.00	7.75	4.25	8.00	5.00	7.75
	13.75	4.00	13.75	5.50	12.00	5.00	9.00	4.75	6.50	6.75	5.50	2.50	5.25	5.00	5.50	7.25
	18.00	2.75	15.75	6.50	12.25	3.75	7.50	4.25	4.75	5.00	5.00	5.00	5.75	4.00	5.25	7.00
	19.00	7.75	12.00	6.50	12.50	3.00	10.00	6.75	5.75	4.75	3.25	4.25	4.25	5.75	5.50	6.25
	10.50	7.50	15.50	3.00	8.50	4.50	14.75	7.00	6.25	8.00	4.50	4.25	6.00	6.25	4.00	5.00
	7.50	4.75	13.25	4.75	8.75	3.00	17.00	5.75	4.25	6.50	7.00	7.25	5.75	7.75	6.00	7.25
Total	210.25	71.50	224.50	74.75	161.75	66.75	151.50	64.50	81.50	78.00	92.75	79.75	72.75	84.50	72.25	91.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	23.00	346.99	8.50	42.50	17.00	[illegible]	7.00	35.00	9.25	142.76	8.25	41.25	7.50	115.75	8.00	40.00
Lowest	7.50	115.75	1.25	6.25	6.50	100.32	2.00	10.00	3.25	50.16	1.25	6.25	3.00	46.30	2.50	12.50
Average	14.49	218.55	4.87	24.35	10.44	161.13	4.37	21.85	5.80	89.52	5.25	26.25	4.83	74.54	5.85	29.25
Tests above average	15		14		13		17		11		14+		15		15	
Tests below average	15		16		17		13		19		15+		15		15	

TABLE XXX.—*Actual measurements of strain and stretch for commercial grades*—Continued.

A.—BOSTON GRADES.

Catalogue number of samples..	283c.				284a.				284b.				283a.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	5.00	4.25	5.00	7.00	16.00	5.50	7.00	4.00	9.50	4.25	8.00	3.00	10.50	2.00	10.75	4.00
	4.25	2.00	6.00	7.00	6.75	4.00	8.25	2.50	5.00	3.00	13.50	7.00	7.25	1.50	11.25	2.50
	5.25	4.25	5.00	3.75	17.00	8.00	8.50	7.00	6.25	3.25	7.50	5.75	13.75	7.25	12.75	5.50
	4.50	1.50	6.50	6.00	9.00	4.50	7.00	5.00	5.00	3.00	7.50	5.00	7.00	1.75	9.25	5.00
	4.00	1.50	4.75	2.00	17.00	7.00	7.50	3.25	9.00	6.50	5.50	7.75	8.50	2.25	6.75	1.50
	6.25	7.25	7.00	4.75	9.50	1.50	13.00	5.00	10.75	7.00	7.00	7.25	15.50	3.75	9.25	5.50
	5.00	2.75	6.00	3.00	11.00	8.50	16.25	7.50	5.50	2.00	9.50	6.00	8.50	1.75	9.00	1.50
	4.50	3.75	4.75	5.00	13.25	1.25	12.25	7.50	6.50	0.25	15.25	2.00	9.00	3.50	7.50	3.25
	5.50	2.00	5.75	3.50	6.75	3.00	10.00	5.75	10.00	2.50	15.00	7.00	7.50	3.75	6.75	2.25
	4.25	1.50	7.00	4.75	11.25	7.00	12.50	3.50	5.75	1.50	13.00	2.75	8.25	6.50	6.75	1.25
	5.00	4.00	5.00	3.50	12.00	0.00	10.50	8.00	5.75	3.00	12.00	0.25	9.00	5.50	6.00	1.50
	3.25	1.25	4.50	1.50	14.75	7.00	12.75	8.25	6.50	7.00	6.00	2.00	5.75	4.75	9.25	5.00
	7.75	2.00	6.00	3.50	8.00	7.00	13.00	4.75	13.50	5.00	7.00	5.50	7.00	1.50	8.25	5.00
	5.50	3.50	4.00	2.00	9.75	8.25	7.00	0.25	10.00	4.00	9.50	4.75	6.00	3.75	7.50	2.75
	8.25	4.50	5.00	2.00	14.25	5.00	20.00	9.00	9.25	2.00	14.50	8.25	8.25	4.50	11.50	5.00
Total	78.25	49.50	85.00	59.25	176.25	83.50	167.50	85.25	121.25	61.25	150.75	81.25	130.75	54.00	132.50	54.50

Recapitulation:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	8.25	127.35	7.25	36.25	20.00	308.68	9.00	45.00	15.25	235.37	8.25	41.25	15.50	239.23	8.00	40.00
Lowest	3.25	50.16	1.25	6.25	6.75	104.14	1.25	6.25	5.00	77.17	1.50	7.50	5.75	88.74	1.25	6.25
Average	5.44	83.96	3.62	18.10	11.45	176.75	5.62	28.10	9.06	139.83	4.75	23.75	8.77	135.36	3.61	18.05
Tests above average	13		14		15		16		14		15+		13		14	
Tests below average	17		16		15		14		14		14+		17		16	

A.—BOSTON GRADES.

Catalogue number of samples..	285b.				285c.				286a.				256b.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	5.00	2.00	9.00	2.00	5.75	3.00	7.50	6.50	8.50	2.75	15.00	6.00	5.50	1.25	10.75	1.25
	6.00	1.75	10.50	6.25	6.00	4.50	11.00	8.50	15.25	3.00	9.50	3.00	12.00	2.50	10.75	2.75
	5.50	1.75	7.75	5.00	7.00	3.25	6.00	6.00	12.25	7.25	6.00	4.50	12.00	1.50	9.75	3.00
	6.75	2.00	6.75	1.50	5.00	5.25	8.50	6.75	11.75	6.75	10.00	2.00	8.50	4.25	7.00	3.75
	4.00	1.75	6.50	3.25	5.75	6.25	9.50	4.50	6.50	3.75	13.50	6.00	12.00	5.00	14.50	6.25
	7.75	5.50	3.50	1.75	9.00	7.00	11.50	7.50	9.00	4.00	11.50	6.50	9.00	4.25	14.25	6.00
	8.00	1.50	6.50	3.25	7.25	7.00	6.50	6.75	10.00	5.00	9.25	2.25	13.25	3.25	13.00	6.00
	7.00	2.50	6.75	2.50	9.00	8.75	14.75	6.00	17.75	6.00	13.50	7.50	15.25	2.00	5.25	6.00
	8.00	7.25	10.00	7.25	7.50	4.50	10.25	8.50	13.00	5.25	8.25	2.00	6.50	2.00	6.50	1.50
	6.75	2.50	7.75	1.50	6.75	5.75	14.50	4.25	8.00	3.00	9.00	5.50	11.00	3.25	5.50	4.25
	8.00	2.00	9.00	7.25	7.25	5.00	7.75	6.50	8.75	4.50	7.00	1.50	14.00	7.00	4.00	3.75
	12.25	7.50	5.50	4.25	11.00	0.00	7.50	7.25	10.50	0.00	10.00	7.00	10.00	4.25	10.00	2.75
	6.75	2.50	5.00	2.25	11.00	7.25	9.25	5.50	5.00	2.00	7.25	2.75	5.50	7.50	7.00	3.75
	8.00	2.50	7.00	5.25	13.50	5.75	7.25	5.50	10.00	7.50	5.00	2.75	11.00	6.50	5.50	2.50
	5.00	1.75	6.25	1.25	7.25	6.50	13.25	3.00	14.00	5.25	8.75	7.50	11.00	5.50	10.75	3.00
Total	106.75	44.25	107.75	54.50	121.00	85.75	145.00	93.00	172.25	72.00	148.50	66.75	150.50	60.00	140.50	62.50

Recapitulation:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	12.25	189.07	7.50	37.50	14.75	227.66	8.75	43.75	19.00	293.25	7.50	37.50	19.00	293.25	8.00	40.00
Lowest	3.50	54.02	1.25	6.25	5.00	77.17	3.00	15.00	5.00	77.17	1.50	7.50	4.00	61.73	1.25	6.25
Average	7.15	110.37	3.30	16.50	8.86	136.75	5.95	29.75	10.69	164.99	4.63	23.10	9.90	152.80	4.08	20.40
Tests above average	12		9		13		17		11		15		17		13	
Tests below average	18		21		17		13		19		15		13		15	

TABLE XXX.—*Actual measurements of strain and stretch for commercial grades*—Continued.

A.—BOSTON GRADES.

Catalogue number of samples..	286c.				286d.				287a.				287b.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	6.00	1.00	10.00	6.75	5.25	4.75	7.25	1.75	19.25	8.00	18.50	7.50	23.50	6.50	28.00	7.50
	5.50	2.25	9.00	1.75	10.25	7.75	16.00	7.75	25.50	7.50	18.75	7.00	29.00	8.50	22.00	7.00
	6.50	2.50	9.25	3.25	12.00	7.50	10.00	2.50	14.00	6.75	17.00	7.50	16.75	5.00	17.00	7.50
	11.75	6.50	5.75	5.75	9.25	4.00	16.25	6.75	22.00	7.50	23.00	7.25	26.50	7.75	11.75	6.00
	14.00	7.25	9.50	4.50	11.75	1.50	10.00	5.00	14.00	8.50	21.75	7.25	18.00	7.00	23.25	7.00
	9.00	7.00	14.00	6.00	7.75	4.50	11.25	2.25	21.25	5.50	23.50	7.50	27.00	8.00	29.00	7.25
	10.50	4.25	6.50	4.50	11.50	2.50	11.25	5.50	21.50	7.00	16.25	7.00	20.50	8.00	18.50	8.00
	5.00	4.25	5.75	4.50	12.50	7.50	11.75	4.75	12.50	4.00	16.75	7.00	31.00	7.00	14.50	6.50
	11.00	5.00	7.00	5.25	6.25	3.00	12.25	4.75	29.00	7.25	19.00	6.75	34.00	8.00	30.00	7.75
	6.50	3.00	7.00	4.50	6.25	2.75	9.50	3.00	12.25	6.25	20.50	7.25	20.25	6.75	19.00	5.75
	5.75	1.75	6.25	2.75	6.00	1.50	9.00	2.00	25.25	7.75	13.00	6.25	19.75	7.00	26.25	6.75
	11.00	3.25	7.50	6.50	7.50	1.50	7.00	5.75	30.00	8.00	29.00	8.25	22.00	7.50	22.00	8.00
	5.75	2.25	16.50	7.75	15.50	7.75	16.00	8.00	19.50	5.75	22.00	7.50	11.00	5.00	29.00	7.50
	9.00	5.25	10.75	6.75	11.25	7.00	5.00	4.00	12.75	7.25	16.50	7.25	19.00	9.00	14.00	6.25
	11.00	7.90	7.00	6.25	10.00	8.00	9.75	4.00	24.00	8.00	31.00	8.25	24.75	7.75	16.75	8.00
Total	128.25	63.00	131.75	73.75	143.00	66.50	162.25	67.75	302.75	105.00	306.50	109.50	343.00	108.75	321.00	106.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Strain.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	16.50	254.67	7.75	38.75	16.75	250.81	8.00	40.00	31.00	478.47	8.50	42.50	34.00	524.77	9.00	45.00
Lowest	5.50	84.89	1.00	5.00	5.00	77.17	1.50	7.50	12.00	185.21	4.00	20.00	11.00	169.78	5.00	25.00
Average	8.66	133.66	4.55	22.75	10.17	156.96	4.47	22.35	20.30	313.32	7.15	35.75	22.13	341.56	7.18	35.90
Tests above average	15		14		14		15		15		19		13		16	
Tests below average	15		16		10		15		15		11		17		14	

A.—BOSTON GRADES.

Catalogue number of samples..	287c.				287d.				288a.				288b.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	10.00	6.50	23.00	8.00	20.75	3.75	15.25	2.50	15.25	7.50	20.25	8.00	19.75	8.50	20.25	4.50
	13.50	4.00	14.00	6.25	13.75	5.00	10.00	2.50	13.00	3.75	15.25	2.00	20.00	6.25	14.00	6.75
	10.50	7.75	6.50	4.25	13.00	5.75	21.75	6.25	21.25	8.00	13.75	7.25	14.00	7.00	13.75	5.00
	18.25	5.00	12.50	4.50	10.00	4.50	9.25	3.25	13.50	6.50	14.25	3.75	25.00	6.25	14.25	7.25
	10.00	5.00	15.00	8.25	14.25	5.00	13.25	2.00	15.75	5.75	18.00	8.00	13.50	2.25	7.50	3.00
	10.00	6.75	23.00	6.75	10.50	6.00	20.25	6.50	15.25	6.00	14.50	7.50	13.25	5.00	15.50	7.75
	20.50	6.50	13.00	3.50	19.00	4.75	13.00	6.50	21.75	7.75	18.00	7.25	7.00	4.75	8.75	2.00
	8.25	7.25	17.00	1.50	10.00	4.50	12.25	8.25	13.00	6.00	20.50	8.00	5.75	4.25	22.00	7.00
	18.00	5.00	6.75	5.25	15.75	8.50	15.00	4.50	16.25	6.75	20.50	8.75	21.00	6.50	19.00	7.75
	12.00	2.75	17.50	5.00	21.25	5.75	7.50	2.00	20.00	8.25	14.00	3.75	11.25	6.75	14.00	5.00
	11.25	5.00	7.50	1.50	12.25	3.25	7.25	5.00	15.00	2.50	14.50	4.25	8.25	2.25	15.50	7.75
	10.25	3.25	17.50	4.50	9.50	3.50	21.75	2.25	9.50	2.50	13.50	6.25	6.25	3.00	23.75	7.25
	19.50	5.00	11.00	7.00	20.75	6.00	10.25	3.00	18.75	8.75	19.75	6.50	15.00	6.00	10.00	5.00
	10.75	2.00	7.25	7.50	12.75	3.50	29.00	6.75	15.75	5.25	17.75	6.00	13.00	4.50	11.75	5.50
	9.25	8.25	17.25	8.25	10.50	4.50	18.50	7.50	20.00	7.50	10.50	4.25	16.25	3.50	11.00	8.75
Total	192.00	83.00	208.75	82.00	214.00	74.25	224.25	68.75	244.00	92.75	245.00	91.50	209.25	75.75	221.00	90.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	23.00	354.91	8.25	41.35	29.00	447.60	8.50	42.50	21.75	335.70	8.75	43.75	25.00	377.08	8.75	43.75
Lowest	6.50	100.32	1.50	7.50	7.25	111.90	2.00	10.00	9.50	146.62	2.00	10.00	5.75	88.74	2.00	10.00
Average	13.35	206.05	5.50	27.50	14.60	225.34	4.76	23.80	16.30	251.52	6.14	30.70	14.34	221.33	5.53	27.65
Tests above average	13		14		12		14		12		18		11		14	
Tests below average	17		16		18		16		18		12		13		16	

TABLE XXX.—*Actual measurements of strain and stretch for commercial grades*—Continued.

Catalogue number of samples..	A.—BOSTON GRADES.												B.—PHILADELPHIA GRADES.			
	289a.				289b.				289c.				290.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	3.75	4.50	4.50	4.50	8.50	3.00	7.25	4.75	51.00	8.25	10.00	8.50	2.50	6.25	2.25	5.50
	3.25	2.50	4.50	2.75	8.75	3.75	13.00	6.50	45.00	8.25	13.50	7.00	3.00	8.50	3.75	8.75
	4.50	2.00	3.00	4.75	11.50	5.00	6.50	4.75	48.00	7.50	4.00	5.00	4.50	7.50	2.50	6.25
	3.50	2.25	6.25	4.50	5.00	3.00	6.75	5.00	51.00	8.50	9.25	4.00	5.00	7.25	3.00	7.75
	3.00	4.25	3.75	2.00	12.00	2.00	9.00	4.50	43.00	7.50	6.50	6.25	2.50	7.00	3.00	4.25
	4.50	3.25	4.00	3.50	8.75	2.75	5.50	7.00	45.00	7.25	13.00	7.25	4.25	6.00	3.00	5.00
	4.75	2.75	3.25	3.50	10.00	5.25	8.50	4.75	53.50	9.50	4.25	2.00	2.75	7.25	2.25	5.25
	5.25	3.50	5.75	4.00	14.00	3.00	4.00	2.00	35.00	7.25	9.50	7.25	3.50	7.00	2.25	6.50
	3.50	2.25	6.00	4.50	9.50	7.00	7.50	4.25	47.50	8.75	3.75	2.00	3.75	5.75	3.00	5.25
	5.00	3.75	7.00	4.50	4.00	2.00	11.50	2.00	43.00	7.50	4.50	4.00	3.25	4.50	2.25	5.75
	5.00	4.75	2.75	2.75	13.50	5.00	7.75	1.5	50.00	9.00	5.75	7.00	3.50	6.25	2.75	7.00
	5.50	3.50	3.00	2.00	8.00	3.25	4.00	1.50	60.00	8.75	9.00	5.00	3.50	7.00	2.50	7.50
	4.25	6.00	4.00	2.00	6.50	2.75	5.50	1.50	44.00	8.25	9.00	5.25	3.00	4.50	2.75	5.50
	3.00	1.75	4.50	2.25	12.00	7.00	13.00	4.75	50.00	8.25	13.50	8.50	2.00	6.50	2.50	5.75
	4.50	5.50	4.50	4.25	7.25	5.25	8.00	1.50	39.00	7.00	9.00	7.50	2.75	4.25	2.75	4.50
Total	63.25	52.50	66.75	51.75	135.25	60.00	119.75	59.25	765.00	121.50	124.50	87.50	49.75	95.50	40.50	89.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	7.00	108.04	6.00	30.00	15.00	231.51	8.00	40.00	60.00	926.07	9.50	47.50	5.00	77.17	8.50	42.50
Lowest	2.75	42.44	1.75	8.75	4.00	61.73	1.50	7.50	3.75	57.87	2.00	10.00	2.00	30.86	4.25	21.25
Average	4.33	66.83	3.47	17.35	8.50	131.19	3.97	19.85	27.65	426.76	6.96	34.80	3.03	46.30	6.15	30.75
Tests above average	16		17		13		15		15		22		9		17	
Tests below average	14		13		15		15		15		8		15		13	

Catalogue number of samples..	B.—PHILADELPHIA GRADES.															
	291.				292.				[illegible]				295a.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	5.75	3.75	4.75	5.00	5.25	7.50	4.25	7.25	4.00	5.00	2.25	3.50	6.75	8.25	5.75	3.50
	4.75	5.50	3.50	4.75	4.75	4.75	5.25	3.50	3.50	4.00	1.25	5.00	3.25	2.00	4.75	2.50
	4.25	5.75	4.50	7.00	4.00	4.50	4.25	3.75	3.00	5.50	5.00	6.25	5.00	3.75	5.00	4.50
	5.25	3.00	3.00	3.25	5.75	5.75	3.50	5.00	3.00	2.50	2.75	3.75	4.25	6.25	5.25	4.25
	3.75	4.75	3.75	5.00	6.25	6.75	5.00	3.00	2.00	3.75	3.25	4.00	3.75	5.50	3.75	3.50
	5.25	5.25	3.00	4.75	4.00	3.50	6.00	4.25	2.25	3.50	2.25	5.50	6.00	7.25	5.75	2.75
	5.25	7.25	4.50	5.00	3.75	7.25	4.25	7.00	3.00	4.25	3.75	4.00	4.25	4.00	5.00	4.75
	4.75	7.00	5.00	7.75	3.75	3.50	5.50	5.00	2.25	5.00	5.50	4.75	6.00	5.00	5.75	4.50
	5.00	7.00	5.00	5.00	5.00	4.75	3.00	4.50	2.50	4.00	2.25	4.50	4.00	5.00	5.25	3.00
	5.00	5.50	4.00	7.25	6.00	5.00	4.25	6.50	4.25	3.50	2.00	3.50	4.75	4.25	5.00	2.50
	5.00	9.00	4.25	6.25	3.75	4.00	6.25	6.75	3.00	4.00	3.00	5.50	5.50	3.50	5.00	2.75
	4.00	7.50	3.50	7.00	4.25	5.50	4.00	4.50	3.50	6.25	2.00	3.00	6.25	5.25	4.50	3.75
	5.00	4.25	4.25	5.00	5.25	6.75	5.00	6.00	2.50	5.00	3.50	5.00	11.50	3.00	5.00	2.75
	3.50	5.75	4.25	7.00	3.50	2.50	6.50	7.50	3.00	6.25	5.00	3.00	4.00	2.00	5.25	4.00
	5.50	6.25	5.00	7.75	4.00	4.50	4.00	2.75	3.75	3.50	2.00	5.75	4.50	7.50	3.75	5.00
Total	72.00	95.50	64.25	93.75	69.25	82.50	71.00	80.25	46.00	66.50	45.75	69.00	72.75	70.50	74.75	54.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	5.75	88.74	9.00	45.00	6.50	100.32	8.75	43.75	5.00	77.17	6.25	31.25	6.75	104.18	8.25	41.25
Lowest	3.00	46.30	3.25	16.25	3.00	46.30	2.50	12.50	2.00	30.86	2.50	12.50	2.25	50.16	2.00	10.00
Average	4.60	70.99	6.30	31.50	4.67	72.08	5.42	27.10	3.05	47.07	4.51	22.55	4.91	75.77	4.15	20.75
Tests above average	16		15		14		14		13		14		16		18	
Tests below average	14		15		16		16		17		16		14		17	

TABLE XXX.—*Actual measurements of strain and stretch for commercial grades*—Continued.

B.—PHILADELPHIA GRADES.

Catalogue number of samples..	295*b*.				295*c*.				294.				296.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grains.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	5.00	3.75	3.50	1.50	3.00	3.00	3.75	4.50	3.25	5.25	3.75	4.00	3.50	6.00	6.25	6.75
	4.00	2.75	3.25	1.50	3.75	6.00	3.25	6.50	3.75	6.50	4.25	6.50	5.00	6.25	5.75	4.75
	4.50	4.50	6.00	5.50	3.50	5.00	2.25	1.50	2.50	2.75	2.75	2.00	6.50	6.75	4.25	7.00
	4.00	4.50	5.25	2.75	3.50	5.25	3.00	6.25	3.00	2.00	3.00	7.25	5.00	6.00	4.50	6.25
	5.50	4.75	4.75	6.00	3.00	3.00	3.75	7.00	3.00	5.75	2.75	4.25	6.25	4.00	2.00	3.00
	4.50	2.75	4.25	4.75	3.25	3.00	3.25	6.50	3.00	7.50	4.00	7.50	4.59	6.00	5.75	4.25
	3.50	2.00	3.75	4.25	3.00	2.75	2.25	5.00	4.25	6.00	5.00	8.00	6.75	7.50	4.00	3.75
	3.25	2.25	3.75	3.50	5.25	6.75	2.75	3.00	2.25	4.00	3.50	7.00	7.00	4.50	3.75	3.00
	5.50	5.50	3.50	5.75	3.25	6.00	3.50	5.75	3.00	2.00	4.00	8.00	5.00	2.50	5.25	4.75
	5.75	6.50	4.50	3.75	3.25	3.75	3.00	6.00	3.00	6.75	3.25	7.50	6.25	8.50	5.50	6.00
	3.50	2.00	5.75	6.50	2.75	4.00	4.50	6.50	2.50	5.25	2.50	2.25	3.75	5.50	7.25	6.00
	4.25	3.75	5.00	2.50	4.00	5.75	2.25	6.50	5.00	8.75	2.75	6.50	3.50	2.50	3.50	2.75
	5.00	6.00	4.75	6.00	4.25	5.00	3.00	2.00	4.25	7.50	3.00	5.00	4.50	4.00	5.50	3.25
	3.00	1.50	4.00	3.50	3.50	5.25	3.25	5.25	3.50	7.25	4.00	5.25	5.50	5.25	6.50	7.00
	5.25	1.50	3.75	5.25	2.50	2.25	3.50	8.00	3.50	5.50	3.00	2.00	5.25	6.50	4.00	3.75
Total	66.50	54.00	65.75	63.00	51.75	66.75	47.25	86.25	51.75	82.75	51.50	83.00	78.25	81.75	73.75	72.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	6.00	92.60	6.50	32.50	5.25	81.03	8.00	40.00	5.25	81.03	8.75	43.75	7.25	111.90	8.50	42.50
Lowest	3.00	46.30	1.50	7.50	2.25	34.72	1.50	7.50	2.25	34.72	2.00	10.00	2.00	30.86	2.50	12.50
Average	4.40	67.91	3.90	19.50	3.30	50.93	4.90	24.50	3.44	53.09	5.52	27.60	5.06	78.09	5.13	25.65
Tests above average	15		14		12		10		12		16		15		16	
Tests below average	15		16		18		11		18		14		15		14	

B.—PHILADELPHIA GRADES.

Catalogue number of samples..	297.				298*a*.				298*b*.				298*c*.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	3.50	4.75	3.00	1.50	9.50	4.50	5.75	5.00	3.00	3.00	7.50	4.00	6.00	5.50	3.00	4.00
	3.00	3.50	4.00	1.75	5.00	2.50	4.25	3.75	5.50	4.00	7.25	5.75	4.50	5.75	5.00	7.00
	3.00	4.25	4.00	5.00	6.00	6.75	6.25	6.50	7.00	8.00	6.00	6.25	2.50	2.50	4.00	4.50
	4.00	6.50	3.00	2.50	5.50	2.75	8.50	5.75	4.75	7.25	7.25	6.25	4.00	7.00	3.00	2.50
	4.75	4.50	3.75	5.50	7.50	4.50	7.00	4.00	4.25	5.00	6.50	3.25	5.50	6.00	3.25	6.50
	4.00	6.25	2.25	3.25	5.00	7.00	5.50	3.50	7.75	7.00	7.25	3.50	5.25	7.75	5.50	5.50
	3.25	4.00	3.25	5.00	6.25	7.00	5.50	2.00	4.00	7.00	6.50	7.00	4.00	7.00	4.00	4.50
	3.75	4.75	3.00	4.50	4.25	3.75	6.75	6.50	8.00	5.75	5.50	6.00	5.50	8.75	3.75	4.75
	3.50	1.75	4.25	5.25	4.25	2.00	8.25	8.50	9.25	7.50	7.50	8.50	4.75	8.00	3.75	5.00
	3.75	2.25	5.00	7.50	6.25	5.00	5.50	2.75	6.25	7.75	3.25	5.00	5.75	4.75	5.25	4.40
	3.50	3.75	4.25	6.00	7.50	5.50	5.75	2.75	4.00	3.00	8.00	5.25	3.75	4.50	4.00	4.00
	4.00	7.50	4.25	4.75	6.75	7.75	5.50	4.00	6.00	3.00	3.00	3.75	6.50	8.25	4.50	3.00
	3.75	7.75	3.50	3.25	7.00	14.50	6.00	7.50	5.50	3.25	6.25	3.00	4.00	4.00	7.00	7.50
	2.50	3.00	3.00	8.00	7.75	7.00	6.75	5.00	6.50	6.00	6.50	7.00	3.75	3.00	3.00	5.00
	4.75	1.50	5.50	4.00	7.25	3.50	9.00	5.50	6.00	7.50	5.75	8.00	4.00	8.00	5.00	4.50
Total	55.00	66.00	56.00	67.75	95.75	74.00	96.25	73.00	87.75	85.00	94.00	82.50	69.75	90.75	64.00	72.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	5.50	84.89	8.00	40.00	9.50	146.62	8.50	42.50	9.25	142.76	8.50	42.50	6.50	100.32	8.75	43.75
Lowest	2.25	34.72	1.50	7.50	4.25	65.59	2.00	10.00	3.00	46.30	3.00	15.00	2.50	38.58	2.50	12.50
Average	3.70	57.10	4.45	22.25	6.40	98.78	4.90	24.50	6.05	93.37	5.58	27.90	4.45	68.68	5.45	27.25
Tests above average	16		16		13		14		16		17		14		14	
Tests below average	14		14		17		16		14		13		10		16	

TABLE XXX.—*Actual measurements of strain and stretch for commercial grades*—Continued.

B.—PHILADELPHIA GRADES.

Catalogue number of samples..	298*d*.				298*e*.				299.				300.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	4.00	6.25	4.25	2.00	4.00	2.00	4.00	5.00	7.25	8.00	8.25	6.25	3.75	1.50	3.25	2.50
	4.50	4.00	6.50	7.00	4.00	6.50	3.25	2.25	7.75	7.75	6.50	6.25	6.00	4.50	5.00	1.75
	4.75	6.50	4.00	5.75	4.25	7.50	2.00	3.50	5.00	4.50	5.00	5.50	5.50	4.00	7.00	5.00
	3.00	4.00	5.75	5.50	3.50	3.25	2.50	2.50	7.50	5.75	3.00	3.50	3.25	6.75	5.25	7.50
	3.00	5.00	4.00	3.25	5.75	7.50	2.25	3.50	7.25	5.00	4.75	2.25	6.75	5.00	5.00	3.00
	5.00	5.00	4.00	6.00	3.00	5.50	3.25	4.25	5.50	3.75	6.25	3.50	4.50	5.25	3.75	2.50
	6.25	7.00	2.75	5.00	4.50	8.50	3.25	5.50	6.75	7.25	3.25	5.00	6.25	6.75	5.00	3.25
	3.50	2.00	3.50	3.00	2.00	2.00	2.50	3.50	5.50	5.50	5.25	5.00	4.25	3.75	7.00	4.00
	6.25	7.50	6.75	5.50	3.00	1.75	2.75	4.50	4.25	5.00	6.75	7.00	3.00	2.25	5.50	6.25
	5.75	4.00	3.50	3.75	4.25	7.25	4.00	3.25	8.00	6.50	5.50	5.50	3.50	2.50	4.75	7.75
	5.00	7.00	6.00	5.25	4.75	8.00	4.00	2.00	5.25	2.00	7.00	2.00	8.00	5.00	3.75	3.00
	4.00	3.00	6.75	7.75	5.75	6.00	3.00	3.50	3.50	4.25	5.00	3.00	3.75	3.50	7.00	5.50
	4.50	3.00	4.00	4.00	3.00	2.00	3.50	4.25	4.25	2.00	6.75	3.00	3.00	4.00	8.50	6.00
	3.00	4.00	4.75	3.75	3.75	3.00	4.25	6.25	5.00	3.50	4.25	5.00	5.00	5.75	5.00	3.25
	4.25	5.00	5.25	5.75	3.50	4.00	5.50	6.00	4.50	4.00	6.00	3.00	6.25	4.75	3.25	2.00
Total	66.75	79.25	71.75	73.25	59.00	74.75	50.00	59.75	80.75	75.25	83.50	65.75	77.75	65.25	79.25	63.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	6.75	104.18	6.00	40.00	5.75	88.74	8.50	42.50	8.25	127.83	8.00	48.00	8.50	131.19	7.75	38.75
Lowest	2.75	42.44	2.00	10.00	2.00	30.86	1.75	8.75	3.00	46.30	2.00	10.00	3.00	44.30	1.50	7.50
Average	4.61	71.15	4.85	24.25	3.63	56.02	4.48	22.40	5.67	87.51	4.70	23.50	5.23	80.72	4.28	21.40
Tests above average	13		17		14		13		13		16		13		14	
Tests below average	17		13		16		17		17		14		17		16	

B.—PHILADELPHIA GRADES.

Catalogue number of samples..	301*a*.				301*b*.				302.				303.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	3.75	3.00	4.75	2.00	8.25	5.25	5.25	2.50	5.75	2.25	7.00	5.75	8.00	8.50	6.25	7.00
	4.00	2.00	3.25	4.00	6.75	5.50	6.00	2.25	5.75	3.00	5.25	4.50	5.50	4.50	7.00	7.50
	4.50	2.75	3.75	4.00	6.75	8.25	5.00	3.25	5.00	3.75	7.00	3.00	6.75	6.50	6.25	8.00
	5.00	5.00	5.00	5.00	4.50	5.50	4.75	5.50	4.75	5.75	4.25	2.00	3.50	4.00	6.25	3.00
	7.50	2.50	7.25	3.75	6.25	4.75	3.00	2.00	5.25	3.25	5.00	4.75	3.00	8.50	3.75	6.50
	4.75	3.25	5.50	3.00	4.00	5.25	4.00	5.75	5.00	5.75	3.75	4.00	4.50	7.75	4.00	7.50
	3.50	2.00	3.50	2.25	3.00	2.50	4.00	3.00	5.25	5.00	6.75	2.50	7.50	7.75	3.00	6.25
	7.50	5.25	5.50	3.00	2.50	3.00	5.00	3.00	3.50	2.00	4.75	3.25	3.50	4.75	3.00	8.00
	6.25	6.00	6.75	2.00	5.00	3.00	3.25	2.00	3.00	2.75	4.00	5.75	5.00	5.25	5.00	5.75
	7.25	4.00	3.00	2.75	4.75	2.50	6.00	5.00	4.00	2.00	3.00	1.25	5.00	4.75	5.00	8.00
	2.50	2.50	3.50	2.00	6.00	5.00	8.50	5.25	4.25	4.50	5.75	2.75	5.75	6.75	5.75	5.00
	6.00	2.00	8.50	2.00	4.00	2.00	4.00	3.25	7.25	3.00	6.50	4.25	6.00	7.00	5.25	3.50
	4.50	3.25	4.00	3.50	5.25	3.00	5.00	3.00	6.50	4.00	5.00	3.00	7.50	7.50	3.25	7.50
	3.00	2.50	3.75	3.50	5.00	7.00	5.00	2.50	2.75	3.25	3.50	4.00	4.00	7.75	6.25	6.50
	5.00	6.25	5.50	5.75	5.25	5.75	3.75	2.25	3.50	5.50	3.00	1.50	5.75	7.00	5.00	7.00
Total	75.00	52.25	78.50	51.50	76.50	68.25	73.50	51.50	73.50	58.25	77.50	52.25	86.25	98.25	92.25	97.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	8.50	131.19	6.00	30.00	8.50	131.19	7.00	35.00	7.25	111.90	5.00	30.00	8.25	127.33	8.50	42.50
Lowest	2.50	38.58	2.00	10.00	2.50	38.50	2.00	10.00	2.75	42.44	1.25	6.25	3.50	54.02	3.00	15.00
Average	5.11	78.87	3.45	17.25	5.00	77.17	3.92	19.60	5.03	77.63	3.68	18.40	5.95	91.83	6.50	32.50
Tests above average	13		12		12+		13		13		15		15		16+	
Tests below average	18		18		15+		17		17		15		15		11+	

TABLE XXX.—*Actual measurements of strain and stretch for commercial grades*—Continued.

B.—PHILADELPHIA GRADES.

Catalogue number of samples..	304.				305*a*.				305*b*.				306*a*.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	9.50	7.00	6.50	4.50	6.00	7.25	4.75	3.75	4.25	4.75	4.50	4.50	6.50	5.00	4.50	7.00
	10.50	8.25	6.50	6.50	5.25	6.25	5.25	5.75	6.50	8.00	4.75	6.00	5.00	6.25	5.25	7.75
	7.00	6.00	7.00	6.25	5.50	6.25	5.75	6.00	7.00	4.25	6.25	6.75	5.50	6.75	5.75	7.00
	8.00	5.50	6.25	4.00	8.50	7.25	5.75	5.25	4.00	4.25	8.50	8.50	5.25	5.25	4.00	7.50
	7.00	8.25	9.00	8.00	6.25	8.50	6.00	5.00	7.00	8.00	6.00	7.00	5.00	5.25	6.25	6.75
	8.75	5.25	4.50	2.75	7.25	7.75	6.25	5.25	3.75	3.75	4.50	4.25	6.00	7.50	6.00	7.50
	5.50	2.25	9.50	7.75	5.75	6.50	6.50	4.50	6.00	6.75	6.00	2.50	5.00	5.25	5.00	7.50
	7.00	4.23	5.00	3.00	5.50	5.25	5.50	7.00	6.25	7.25	3.50	5.25	4.00	7.75	5.00	7.50
	5.00	4.75	8.00	6.00	5.25	4.75	9.50	5.75	5.00	3.50	7.25	6.25	6.50	7.00	6.00	6.25
	8.75	8.25	7.00	7.50	4.00	2.25	5.00	4.00	4.75	5.25	6.00	7.00	6.00	7.25	6.00	5.75
	7.25	6.75	6.75	6.75	7.50	6.00	5.00	7.75	7.75	6.00	5.25	6.25	5.75	5.25	6.50	8.25
	10.50	7.25	5.00	3.75	5.00	6.75	6.00	4.75	7.00	6.50	7.00	8.25	4.50	7.50	6.00	7.75
	5.75	5.25	7.50	4.50	7.75	7.50	10.00	7.25	5.50	4.75	5.75	7.75	3.25	6.25	5.50	7.00
	6.00	5.00	8.00	6.50	5.25	7.75	7.50	5.75	6.50	7.00	5.00	5.75	4.25	4.75	5.00	7.00
	6.75	6.50	7.00	7.25	6.75	4.25	6.00	5.50	6.00	6.25	5.25	7.00	7.00	8.00	4.25	4.25
Total	113.25	90.50	103.50	85.00	91.50	94.25	94.75	83.25	87.25	86.25	85.50	93.00	79.50	95.00	81.00	104.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	10.50	162.05	8.25	41.25	10.00	154.34	8.50	42.50	8.50	131.19	8.50	42.50	7.00	108.04	8.25	41.25
Lowest	4.50	69.45	2.25	11.25	4.00	61.74	2.25	11.25	3.50	54.02	2.50	12.50	3.25	50.16	4.25	21.25
Average	7.22	111.43	5.85	29.25	6.20	76.01	5.91	29.55	5.75	88.74	5.97	29.85	5.35	82.57	6.65	33.25
Tests above average	12		17		11		15		16		13		15		11	
Tests below average	13		18		19		15		13		12		15		19	

B.—PHILADELPHIA GRADES.

Catalogue number of samples..	306*b*.				306*c*.				307*a*.				307*b*.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	4.00	8.50	5.75	8.00	5.25	6.75	3.75	8.75	2.25	2.75	4.50	4.00	5.00	3.75	6.00	6.75
	5.00	5.00	5.00	6.25	3.00	6.25	3.25	7.25	4.00	3.25	4.00	2.00	4.00	3.25	4.50	6.50
	6.00	6.75	4.00	7.75	6.75	8.25	5.50	7.00	7.25	8.25	4.75	6.75	4.25	3.00	5.00	3.50
	4.25	5.50	4.00	8.25	5.50	7.25	3.75	5.25	3.00	2.25	6.50	5.25	6.00	6.75	5.75	3.50
	6.00	8.25	5.00	7.00	5.00	7.50	5.00	4.75	4.00	4.50	8.75	3.75	7.50	6.50	6.75	4.50
	4.75	8.75	4.75	7.20	6.25	7.75	3.00	5.75	4.00	2.25	4.75	3.00	6.25	6.25	3.25	2.50
	4.00	6.00	3.25	6.25	5.00	8.25	4.50	7.75	5.00	4.50	5.00	6.75	5.00	4.50	3.75	3.50
	6.00	7.75	6.75	8.00	3.25	6.25	3.00	7.50	5.75	1.00	4.75	7.50	7.00	6.75	9.50	7.25
	3.75	7.75	5.00	6.00	3.50	6.00	3.00	5.25	2.75	2.75	4.25	3.00	8.00	5.50	6.00	7.00
	3.50	6.25	4.00	6.50	4.25	8.00	3.75	6.50	4.25	3.50	8.50	7.25	4.00	3.25	5.50	2.00
	5.00	6.00	4.75	7.50	6.75	6.75	4.50	5.50	4.75	5.75	4.00	6.25	5.50	2.00	5.75	3.50
	5.00	8.00	3.75	7.75	5.50	7.50	5.25	6.75	6.75	6.50	7.50	7.50	3.00	4.25	6.75	5.75
	4.75	8.75	4.00	8.00	3.50	6.50	5.25	5.50	7.00	6.75	3.00	2.00	5.75	5.00	4.75	4.75
	7.00	6.50	5.00	6.75	3.50	7.00	3.25	5.00	8.75	5.50	4.75	4.00	7.25	7.25	5.75	5.75
	6.50	8.00	4.00	6.50	6.25	7.75	3.00	4.50	4.00	5.75	2.50	3.25	7.50	5.50	7.75	7.25
Total	75.50	107.75	69.00	107.75	73.25	107.75	59.75	93.00	73.50	65.25	77.50	72.25	86.00	73.50	86.75	74.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	7.00	108.04	8.75	43.75	6.75	104.18	8.75	43.75	8.75	135.05	8.25	41.25	9.50	146.62	7.25	36.25
Lowest	3.25	50.16	5.00	25.00	3.00	46.30	4.50	22.50	2.25	34.72	1.00	5.00	3.00	46.30	2.00	10.00
Average	4.81	74.23	7.18	35.90	4.43	68.37	6.69	33.45	5.03	77.63	3.43	17.15	5.75	88.74	4.91	24.55
Tests above average	14		16		15		17		9		19		13		15	
Tests below average	16		14		15		13		21		11		13		15	

TABLE XXX.—*Actual measurement of strain and stretch for commercial grades*—Continued.

B.—PHILADELPHIA GRADES.

Catalogue number of samples..	307c.				307d.				307e.				308a.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	6.00	5.00	5.00	6.25	5.00	6.00	4.75	7.00	9.00	5.00	5.00	5.50	6.25	3.00	9.00	5.75
	7.50	6.00	7.00	6.00	5.00	3.75	6.75	5.25	6.00	7.50	11.25	6.00	6.75	2.00	4.50	7.00
	5.25	6.75	4.75	3.00	5.00	6.50	4.50	4.00	9.00	4.25	4.25	7.25	12.00	8.25	6.00	4.25
	5.25	3.50	8.00	4.75	4.50	4.00	3.75	2.25	4.75	4.50	5.00	5.50	8.50	3.25	7.50	8.00
	6.00	5.75	8.00	4.50	6.00	8.00	8.75	7.00	6.00	3.00	4.00	6.75	8.00	6.00	10.75	6.50
	5.00	3.25	7.00	6.75	4.00	7.00	5.25	2.25	6.25	7.00	4.75	5.00	9.25	3.00	6.25	2.50
	3.25	2.00	6.75	7.25	4.75	4.00	6.25	4.00	11.50	6.75	10.00	6.75	8.50	4.00	10.50	7.50
	5.75	3.50	7.75	6.25	4.00	6.00	5.75	4.75	5.00	6.00	4.25	6.00	60.00	7.50	5.25	5.00
	7.50	5.25	4.75	2.25	5.50	8.00	4.75	5.25	4.75	5.00	5.00	7.50	7.00	2.75	15.25	7.75
	6.75	6.00	6.50	5.25	5.50	4.25	5.00	6.50	5.75	5.75	6.25	6.00	12.00	5.50	8.00	2.50
	7.75	5.00	7.25	6.00	5.25	3.00	6.75	7.00	6.25	8.50	5.75	6.00	10.00	6.25	14.00	5.50
	5.25	6.25	5.00	4.25	5.50	5.50	4.00	7.00	7.25	2.50	3.50	6.00	11.50	6.25	7.50	3.00
	5.00	3.00	6.25	4.25	5.00	5.75	3.00	3.50	5.25	5.25	5.25	6.00	11.75	7.25	9.50	5.50
	6.00	3.50	3.50	3.25	5.75	4.00	5.25	7.50	4.75	3.75	3.25	2.00	10.00	6.25	6.00	2.25
	5.00	2.50	4.25	3.00	5.50	3.00	4.50	8.50	6.00	7.00	6.25	7.50	9.00	5.75	8.50	4.25
Total	87.25	67.25	91.75	73.00	76.75	78.75	79.00	81.75	97.50	81.75	83.75	90.25	140.50	77.00	131.75	77.25

Recapitulation:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	8.00	123.47	7.25	36.25	8.75	135.05	8.50	42.50	11.50	177.50	8.50	42.50	15.25	235.38	8.25	41.25
Lowest	3.25	50.16	2.00	10.00	3.00	46.30	2.25	11.25	3.25	50.16	2.00	10.00	4.50	69.45	2.00	10.00
Average	5.90	91.99	4.67	23.35	5.19	80.10	5.35	26.75	6.04	93.22	5.73	28.65	9.08	140.14	5.14	25.70
Tests above average	13		16		14		15		10		18		13		17	
Tests below average	14		14		13		15		20		12		17		13	

B.—PHILADELPHIA GRADES.

Catalogue number of samples..	308b.				308c.				308d.				308e.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	8.50	4.75	7.50	2.00	11.75	7.50	6.00	5.75	9.50	6.00	13.75	7.00	14.50	7.75	9.50	5.00
	11.75	6.00	13.00	6.75	12.00	7.50	12.00	7.25	9.00	7.00	8.50	3.50	7.25	1.25	6.50	3.50
	6.75	3.00	12.50	6.50	12.75	7.00	10.50	6.25	10.00	3.00	9.50	6.00	8.50	5.25	8.50	4.50
	6.75	6.75	10.00	6.75	7.25	7.00	8.25	6.50	8.00	6.00	8.00	3.50	10.00	3.00	11.25	5.75
	15.00	7.00	10.50	7.50	11.00	8.00	11.00	8.00	11.00	7.75	8.00	7.25	15.50	7.00	6.75	2.00
	9.50	4.75	9.00	6.25	12.00	6.50	8.25	6.50	8.00	2.50	15.25	8.25	11.00	5.25	9.75	4.75
	15.00	8.50	10.00	5.00	16.00	8.75	11.00	8.25	8.75	7.00	10.00	7.50	17.50	8.25	7.50	3.25
	12.00	6.50	16.25	6.25	16.00	7.25	17.00	7.00	5.75	3.50	16.75	8.25	8.00	4.50	8.25	7.50
	16.25	5.25	11.25	2.75	11.75	6.75	13.25	5.50	12.50	8.50	16.25	8.25	8.00	8.25	10.00	3.00
	9.00	5.00	12.00	7.25	9.00	7.25	10.00	7.00	11.50	6.75	9.00	4.50	11.75	6.50	6.00	5.50
	10.50	7.50	11.00	4.50	10.00	6.00	17.00	7.25	14.00	7.50	16.00	5.75	9.00	2.00	10.00	8.25
	6.75	1.75	8.00	5.25	13.25	6.00	8.25	7.50	9.25	5.00	8.25	7.00	7.00	5.50	10.25	7.00
	9.25	7.75	10.50	2.25	11.75	8.75	7.75	7.50	9.00	7.75	11.00	6.50	8.25	7.75	11.25	7.25
	17.25	4.75	7.00	3.75	9.00	6.50	7.00	5.00	16.00	7.75	10.50	4.00	10.00	3.00	11.25	2.50
	12.00	7.00	15.00	6.25	10.75	6.50	8.75	7.50	9.00	3.00	12.00	7.50	9.75	7.00	9.50	1.50
Total	156.25	86.25	163.50	79.00	176.25	107.25	152.00	100.75	151.25	80.00	172.75	94.75	152.00	91.25	106.25	71.25

Recapitulation:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	16.25	250.81	8.50	42.50	17.00	262.39	8.75	43.75	16.75	258.53	8.50	42.50	17.50	270.11	8.25	41.25
Lowest	6.75	104.18	1.75	8.75	6.00	92.61	3.00	15.00	5.75	88.75	2.50	12.50	6.00	92.61	1.25	6.25
Average	10.66	164.53	5.51	27.55	10.94	168.85	6.93	34.65	10.80	166.69	6.13	30.15	9.61	148.33	5.42	27.10
Tests above average	13		11		16		18		12		17		15		16	
Tests below average	17		14		14		12		18		13		16		14	

TABLE XXX.—*Actual measurements of strain and stretch for commercial grades*—Continued.

B.—PHILADELPHIA GRADES.

Catalogue number of samples..	309*b*.				310*a*.				310*b*.				310*c*.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	6.00	2.00	9.50	4.50	11.00	4.75	18.00	8.25	27.75	7.00	30.00	8.00	28.00	8.00	28.75	2.50
	6.25	2.25	13.00	5.75	15.00	3.00	25.00	7.00	23.50	5.50	17.00	7.00	14.00	2.25	25.00	4.00
	6.25	1.25	8.00	3.25	17.00	6.75	15.00	6.25	19.00	5.75	27.00	7.00	23.75	8.00	17.00	4.00
	11.00	5.00	11.25	5.50	26.00	7.25	21.00	5.75	26.00	8.00	25.00	6.25	16.00	3.00	14.00	2.75
	8.50	3.75	7.00	2.50	16.25	8.50	12.00	4.00	27.00	6.50	10.00	4.25	25.00	3.50	16.25	3.00
	8.00	4.25	12.75	7.50	13.00	4.50	16.25	7.50	33.00	8.00	28.00	6.50	23.50	2.50	41.00	8.50
	11.00	4.50	11.50	5.75	11.00	4.75	10.25	7.50	14.00	5.00	18.00	6.00	42.00	8.50	19.25	7.00
	9.25	6.25	10.00	5.00	18.50	4.50	24.00	7.50	24.75	8.50	23.00	6.75	12.00	5.00	26.75	6.75
	7.50	4.00	11.50	2.75	15.50	6.75	26.75	7.50	22.00	6.50	26.00	6.50	20.00	7.50	29.75	8.00
	7.50	1.25	8.00	6.25	26.00	6.75	21.00	7.75	26.00	8.00	31.00	7.25	14.00	2.50	14.25	6.75
	12.00	5.00	7.50	5.00	17.50	3.75	20.00	4.00	15.00	3.25	18.50	7.50	24.00	6.25	36.00	7.50
	14.00	7.25	10.00	4.00	11.00	7.25	14.00	6.25	15.25	6.50	15.50	6.50	18.00	5.50	14.00	4.25
	11.00	4.25	8.00	1.50	20.00	8.75	18.75	7.00	21.25	8.00	24.75	6.75	27.25	4.00	19.00	7.50
	13.50	7.75	9.75	3.00	15.00	4.25	10.00	5.00	21.00	8.00	29.00	7.50	10.00	2.00	16.75	7.50
	8.00	3.00	13.50	5.50	18.00	7.25	22.50	7.75	19.00	6.75	25.00	7.50	30.50	6.50	17.50	4.00
Total	139.75	61.75	157.25	67.75	250.75	88.75	274.50	99.00	334.50	101.25	347.75	101.25	328.00	75.00	335.25	84.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	14.00	216.08	7.75	38.75	26.25	405.16	8.75	43.75	33.00	509.34	8.50	42.50	42.00	648.25	8.50	42.50
Lowest	6.00	92.61	1.25	6.25	10.00	154.35	3.00	15.00	10.00	154.35	3.25	16.25	10.00	154.35	2.00	10.00
Average	9.70	149.72	4.22	21.60	17.51	270.26	6.26	31.30	22.74	350.98	6.75	33.75	22.11	341.26	5.30	26.50
Tests above average	15		15		14		17		17		14		14		15	
Tests below average	15		15		16		13		13		13		10		15	

B.—PHILADELPHIA GRADES.

Catalogue number of samples..	311*a*.				311*b*.				311*c*.				311*d*.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	13.00	6.25	8.00	6.75	6.25	2.75	7.00	2.25	10.50	6.75	12.50	7.75	5.75	6.00	7.00	1.75
	5.25	5.00	8.00	5.25	10.00	6.00	6.50	5.75	8.50	6.00	9.00	5.00	4.25	5.25	8.75	3.00
	5.50	3.00	5.75	5.00	10.00	3.00	9.75	5.50	10.75	5.75	11.00	6.75	2.50	3.75	5.00	6.50
	8.25	7.75	13.50	4.00	6.50	5.25	10.00	5.50	12.50	5.50	8.50	4.00	3.50	3.75	6.25	4.25
	8.50	5.25	10.75	3.00	10.00	5.50	8.50	2.25	9.00	6.75	11.00	5.50	5.00	1.75	7.00	2.50
	5.00	5.25	6.00	3.50	9.25	5.75	18.75	5.00	8.50	8.00	7.00	5.25	8.00	3.25	8.50	5.50
	9.25	8.25	7.00	2.25	8.00	3.25	11.50	4.50	10.50	5.50	14.00	8.00	4.25	4.00	3.00	2.00
	13.00	8.75	6.75	6.50	11.50	4.00	7.75	4.75	7.25	2.50	6.00	3.50	5.75	7.75	5.00	4.75
	12.00	6.25	7.50	1.50	11.25	5.00	9.25	6.00	10.00	2.00	10.00	2.50	8.00	3.50	9.00	6.00
	7.50	6.50	9.75	2.25	15.00	4.00	11.75	6.00	12.25	2.50	14.00	7.00	8.00	6.50	5.50	6.50
	6.25	5.00	7.00	4.00	7.25	5.50	9.50	5.00	11.25	6.50	11.00	4.75	7.50	4.50	3.75	3.00
	13.00	4.25	5.00	4.00	15.00	8.00	16.00	6.25	13.75	6.00	16.00	7.50	6.00	6.50	7.25	2.50
	8.25	6.25	20.00	6.75	7.00	2.50	6.25	6.75	11.00	7.50	12.00	5.00	3.25	5.25	2.50	1.50
	11.00	5.00	9.00	6.25	11.00	2.00	9.00	5.50	11.00	9.00	8.00	12.75	5.50	4.25	5.50	3.25
	6.25	7.00	8.00	5.50	14.50	7.00	9.50	3.50	6.50	3.00	18.75	7.50	10.25	5.25	6.25	1.25
Total	136.00	89.75	132.00	66.50	152.50	69.50	151.00	74.50	153.25	83.25	168.75	85.75	87.50	71.25	90.25	54.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	20.00	308.69	8.75	43.75	18.75	289.40	8.00	40.00	18.75	289.40	9.00	45.00	10.25	158.20	7.75	38.75
Lowest	5.00	77.17	1.50	7.50	6.25	96.47	2.00	10.00	6.00	92.61	2.00	10.00	2.50	38.59	1.25	6.25
Average	8.93	137.83	5.21	26.50	10.12	156.20	4.80	24.00	10.75	165.61	5.63	28.15	5.93	91.53	4.18	20.90
Tests above average	10		16		10		18		16		16		14		15	
Tests below average	20		14		20		12		14		14		10		15	

TABLE XXX.—*Actual measurements of strain and stretch for commercial grades*—Continued.

B.—PHILADELPHIA GRADES.

Catalogue number of samples..	312.				313a.				313b.				313c.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	8.00	5.00	9.50	2.75	5.25	2.25	10.50	3.00	12.00	2.00	10.75	2.50	9.75	3.25	10.50	6.25
	8.00	3.50	15.00	2.75	7.75	5.75	16.00	4.00	8.75	2.75	6.00	2.25	12.00	6.25	23.75	8.00
	18.75	5.00	5.25	2.25	14.00	2.75	5.50	1.25	9.00	1.50	7.00	2.00	18.25	5.25	8.75	5.25
	14.00	6.75	19.00	7.00	11.25	3.00	4.25	1.50	9.00	2.00	5.25	1.75	9.25	3.75	10.00	4.00
	6.00	5.00	10.25	6.25	6.50	1.50	7.25	3.50	7.25	2.00	9.50	1.75	10.00	2.00	12.00	3.00
	12.00	7.25	17.00	7.50	10.00	7.00	9.25	4.00	12.50	1.25	9.00	4.50	13.50	3.00	14.75	7.00
	13.25	2.00	7.00	2.00	7.75	4.00	6.50	2.00	7.00	1.75	5.00	3.25	15.00	3.50	15.00	2.25
	9.75	2.25	17.00	2.75	6.00	5.00	15.00	5.50	7.00	2.50	10.00	2.25	8.00	2.50	5.00	4.00
	8.75	5.25	10.00	5.25	5.75	2.50	9.25	2.50	10.00	3.50	9.25	2.50	8.00	2.75	10.50	6.25
	10.00	5.75	8.75	6.75	12.00	6.50	5.25	3.75	10.00	6.50	8.25	1.25	21.25	9.25	20.00	5.75
	9.00	6.75	6.50	3.00	10.00	3.25	10.00	2.00	9.00	1.25	11.00	3.50	12.50	7.00	13.25	3.75
	8.00	2.50	12.75	8.25	14.00	4.00	9.25	3.50	9.25	1.00	10.00	3.50	12.50	3.25	8.00	2.00
	14.25	8.00	10.50	6.50	12.75	3.75	12.00	5.00	14.00	6.75	5.00	1.00	14.00	6.75	11.50	2.50
	13.50	4.50	10.70	3.75	6.50	2.00	10.50	3.50	5.50	1.75	5.00	1.25	17.00	6.00	11.75	6.50
	13.00	7.00	5.25	2.50	6.75	4.75	9.00	4.00	10.25	4.00	9.75	1.50	15.25	7.25	16.00	6.75
Total	165.00	76.50	165.25	69.25	136.25	59.00	133.50	47.00	139.75	40.50	123.75	34.75	196.25	69.75	195.75	73.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	20.00	308.76	8.25	41.25	16.00	246.95	7.00	35.00	14.00	216.08	6.75	33.75	23.75	366.57	8.00	40.00
Lowest	5.25	81.03	2.00	10.00	4.25	65.60	1.25	6.25	5.00	77.17	1.00	5.00	5.00	77.17	2.00	10.00
Average	11.04	170.40	4.86	24.30	8.99	138.76	3.53	17.65	8.81	135.98	2.51	12.55	13.07	201.73	4.77	23.85
Tests above average	12		17		17		14		18		9		12		15	
Tests below average	18		13		13		16		12		21		14		15	

B.—PHILADELPHIA GRADES.

Catalogue number of samples..	314a.				314b.				315a.				315b.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	4.00	1.75	9.00	6.25	6.75	5.00	4.50	11.25	6.00	2.25	10.00	2.00	8.00	3.25	4.75	3.25
	6.75	6.75	5.00	3.25	6.25	6.75	4.25	3.75	6.00	2.00	7.75	6.75	11.00	3.25	4.25	3.00
	4.75	3.50	5.00	6.50	5.00	7.00	5.00	2.00	10.00	6.75	8.00	3.25	9.00	5.50	6.50	4.00
	5.25	2.00	4.75	2.75	7.00	3.50	5.75	5.25	8.00	7.00	7.50	2.00	5.25	3.75	6.25	3.00
	5.00	6.00	5.75	2.00	7.00	6.50	3.75	3.50	9.75	2.50	6.00	2.00	4.75	5.50	5.00	4.50
	6.00	5.75	4.00	2.25	5.75	2.25	6.75	8.00	7.00	4.00	5.50	6.50	6.00	2.00	7.25	1.50
	5.00	3.00	3.25	1.75	5.75	3.00	6.00	4.00	5.25	2.50	7.00	5.75	3.50	1.75	7.75	3.25
	7.00	8.75	7.00	2.25	4.75	1.75	7.00	5.00	6.00	2.00	5.00	2.00	4.50	1.75	9.50	7.50
	4.50	2.25	6.25	5.25	6.25	3.25	5.25	5.50	7.25	2.75	7.25	4.25	6.50	4.25	5.00	2.75
	7.00	4.75	7.25	4.75	7.00	4.00	5.00	3.00	5.50	3.50	7.00	6.00	5.00	1.25	5.25	4.25
	6.00	2.00	5.00	2.00	8.00	6.25	5.00	5.75	8.00	4.50	8.00	4.25	8.25	4.25	6.00	6.50
	6.00	4.00	7.00	5.75	5.75	2.00	7.00	6.00	2.00	4.50	6.00	2.00	4.25	2.75	6.00	2.25
	4.75	2.00	7.50	5.50	5.00	1.25	6.50	4.50	6.25	8.75	5.25	4.00	4.50	2.50	7.25	2.50
	10.00	7.00	6.00	3.00	5.00	7.00	6.75	3.50	7.00	4.75	5.00	5.75	3.50	2.00	5.00	2.00
	5.50	2.00	6.00	2.00	4.50	5.50	7.25	6.25	6.00	6.00	5.00	3.00	5.50	5.00	5.25	2.00
Total	57.50	63.00	84.75	55.25	92.75	68.00	85.75	67.25	105.50	63.75	103.25	59.50	92.50	48.75	92.00	55.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	10.00	154.35	8.75	43.75	8.00	123.48	8.00	40.00	10.00	154.35	8.75	43.75	11.00	169.78	7.50	37.50
Lowest	3.25	50.16	1.75	8.75	3.75	57.88	1.25	6.25	5.00	77.17	2.00	10.00	3.50	54.02	1.25	6.25
Average	5.74	88.59	3.94	19.70	5.95	91.84	4.51	22.55	6.93	107.43	4.11	20.55	6.15	94.92	3.48	17.40
Tests above average	15		13		15		14		17		14		12		12	
Tests below average	15		17		15		16		13		16		18		18	

TABLE XXX.—*Actual measurements of strain and stretch for commercial grades*—Continued.

B.—PHILADELPHIA GRADES.

Catalogue number of samples..	316.				317*a*.				317*b*.				317*c*.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	11.00	5.00	7.25	3.25	6.25	3.75	4.00	2.25	5.00	6.75	5.00	5.00	6.00	5.25	6.50	5.00
	13.00	5.75	6.00	2.25	4.25	2.75	4.25	5.50	5.00	5.50	5.00	1.25	6.75	6.00	5.75	6.50
	6.00	2.75	9.00	5.50	4.75	4.50	4.00	1.50	5.25	7.75	3.00	3.25	5.75	4.75	3.00	4.00
	12.00	7.00	9.25	7.50	5.50	4.25	3.75	3.50	5.00	3.75	5.00	6.75	3.75	3.50	6.00	6.50
	8.50	2.25	13.75	8.00	3.50	2.25	6.00	3.25	6.50	6.00	6.00	5.25	5.00	6.00	5.75	5.50
	9.00	6.50	7.50	6.25	3.25	2.00	5.75	5.50	3.50	1.25	5.00	1.75	5.50	7.00	6.00	2.00
	8.75	7.25	6.00	3.50	6.25	3.75	4.75	3.75	6.75	8.00	8.50	7.50	4.25	4.50	5.00	5.50
	8.00	6.00	7.00	3.00	5.75	4.00	6.00	3.00	8.25	4.25	5.25	3.75	4.00	6.00	5.50	5.50
	9.00	7.25	14.00	6.50	4.75	1.50	4.50	2.00	4.00	4.25	4.50	3.25	4.25	2.50	4.50	6.50
	9.00	7.25	6.25	2.50	3.25	1.50	4.50	6.00	4.00	3.50	5.50	3.75	4.50	5.00	5.00	7.00
	6.00	2.50	7.00	2.25	5.50	3.75	4.00	2.00	5.75	2.25	5.00	7.50	6.75	5.00	6.50	2.00
	7.00	2.50	9.50	6.00	3.25	1.75	3.25	4.25	6.75	6.50	5.25	6.25	4.50	5.00	5.50	7.25
	8.00	2.00	8.00	4.25	3.50	1.75	5.25	3.50	4.00	2.00	3.25	4.00	5.75	4.50	4.75	2.50
	8.00	2.50	8.00	6.50	3.25	2.00	5.00	3.25	4.00	4.50	4.00	2.00	5.75	4.50	4.25	5.00
	5.00	2.75	7.00	3.25	5.50	2.25	4.00	3.00	4.00	3.50	4.00	6.25	5.00	6.00	5.75	5.25
Total	128.25	69.25	125.50	7.50	68.50	41.75	69.00	57.25	77.75	69.75	74.25	67.50	77.50	75.50	79.25	76.00

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grams.*	*mm.*	*per ct.*	*grams.*	*grams.*	*mm.*	*per ct.*	*grams.*	*grams.*	*mm.*	*per ct.*	*grams.*	*grams.*	*mm.*	*per ct.*
Highest	14.00	216.08	8.00	40.00	6.25	96.47	6.00	30.00	8.50	131.19	8.00	40.00	6.75	104.18	7.25	36.25
Lowest	5.00	77.17	2.00	10.00	3.25	50.16	1.50	7.50	3.00	41.30	1.25	6.25	3.00	46.30	2.00	10.00
Average	8.46	130.58	4.66	23.30	4.58	70.69	3.13	15.65	5.07	78.25	4.58	22.90	5.23	80.72	5.05	25.25
Tests above average	13		15		14		15		11		13		16		15	
Tests below average	17		15		16		15		19		17		14		15	

B.—PHILADELPHIA GRADES.

Catalogue number of samples..	318.				319*a*.				319*b*.				320.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	21.00	6.75	21.50	6.75	2.00	2.25	3.75	3.25	4.00	5.00	2.25	3.75	2.00	4.75	2.50	5.25
	21.00	6.25	25.00	7.25	3.50	5.25	3.00	2.00	2.75	5.25	2.50	3.25	2.00	2.25	2.25	4.00
	15.00	3.75	18.00	4.00	2.00	3.50	4.00	5.25	3.00	4.25	2.75	3.50	2.00	5.25	2.00	3.50
	26.00	7.75	13.25	2.00	3.50	2.75	2.00	1.50	2.00	1.50	2.00	2.00	2.25	5.00	2.00	3.25
	18.00	6.00	20.00	7.75	3.00	6.75	2.25	4.00	2.00	2.25	2.75	3.50	2.00	3.00	2.25	3.25
	18.00	7.00	19.00	3.25	2.25	2.50	2.75	4.00	3.00	6.50	3.00	3.75	2.50	6.00	2.25	5.75
	18.00	7.50	24.75	8.00	3.00	3.00	3.75	4.50	2.25	2.25	3.00	4.50	2.00	5.00	2.00	2.00
	25.00	8.00	20.25	7.25	2.00	1.50	3.00	6.25	3.00	2.25	2.75	4.50	2.00	4.25	2.50	4.25
	23.00	7.25	18.00	7.50	2.50	3.25	2.50	1.25	4.00	5.50	2.50	2.50	1.75	4.50	2.00	4.00
	20.00	8.00	14.00	7.00	3.00	4.00	3.00	5.75	2.25	3.00	3.00	4.00	2.00	4.00	2.00	3.25
	18.50	6.00	20.00	7.75	2.25	3.50	3.00	5.00	3.25	4.25	3.00	4.00	2.25	4.75	1.75	5.00
	23.00	6.75	15.00	5.50	3.75	6.00	3.50	4.75	2.75	2.00	2.00	3.75	2.50	5.00	2.00	3.00
	15.00	3.50	27.00	7.50	3.25	5.00	2.75	2.00	3.00	5.00	2.25	5.25	2.00	2.50	2.25	5.25
	24.50	8.50	25.00	8.50	3.00	3.50	2.25	3.25	2.25	1.50	2.50	3.75	2.25	4.50	2.25	4.25
	19.75	5.00	15.50	6.00	1.50	1.75	2.00	3.50	2.00	2.25	2.00	2.25	2.25	3.25	1.75	3.25
Total	305.75	98.00	296.25	96.00	40.50	54.50	43.50	56.25	41.50	52.75	38.25	54.25	31.75	64.00	31.75	59.25

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grams.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	27.00	416.73	8.50	42.50	4.00	61.74	6.75	33.75	4.00	61.74	6.50	32.50	2.50	38.59	6.00	30.00
Lowest	13.25	204.50	2.00	10.00	1.50	23.15	1.25	6.25	2.00	30.87	1.50	7.50	1.75	27.01	2.00	10.00
Average	20.07	309.77	6.47	32.35	2.80	43.22	3.73	18.65	2.66	41.06	3.57	17.85	2.11	32.57	4.11	20.55
Tests above average	13		19		16		13		16		16		13		16	
Tests below average	17		11		14		17		14		14		17		14	

TABLE XXX.—*Actual measurements of strain and stretch for commercial grades*—Continued.

C.—GERMAN GRADES.

Catalogue number of samples..	321.				322.				323.				324.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	4.00	3.00	5.00	2.75	2.75	3.25	2.75	3.50	6.00	5.75	3.00	7.25	3.25	4.50	4.25	6.00
	4.00	6.25	3.50	5.75	3.00	3.50	2.00	3.50	4.25	5.25	5.00	4.50	3.50	3.50	4.00	2.50
	4.25	5.00	3.50	4.75	2.50	5.00	2.75	5.00	3.00	6.25	3.50	4.25	5.00	7.00	3.00	3.00
	4.25	7.50	3.00	5.25	3.50	4.25	2.50	3.50	5.00	6.50	5.25	5.25	3.25	5.00	3.75	3.25
	5.00	4.00	5.00	4.50	3.00	4.00	2.75	2.25	3.50	6.00	4.00	7.75	4.75	7.00	4.00	3.00
	5.00	3.50	4.00	5.50	2.00	4.00	3.00	4.25	3.00	3.75	5.00	3.75	3.75	7.00	4.00	3.50
	5.00	5.25	5.75	5.50	2.75	3.50	3.50	4.00	4.50	7.50	6.00	6.25	4.00	4.25	3.00	2.00
	5.75	4.50	3.00	3.75	3.25	3.50	3.00	4.00	4.00	7.00	5.75	4.50	4.00	5.00	3.25	5.00
	4.75	3.00	4.00	4.50	2.25	2.75	2.50	3.75	3.75	3.25	3.50	5.00	3.75	6.50	4.00	6.00
	5.25	7.00	4.00	5.50	2.50	4.75	2.75	3.00	3.00	4.75	3.50	5.75	3.25	2.50	4.00	3.00
	4.00	5.75	5.00	4.50	3.00	3.50	2.75	2.50	3.00	5.50	3.25	5.50	3.75	6.00	3.25	5.00
	5.00	5.75	5.75	4.75	3.00	4.75	3.00	3.50	4.25	2.00	3.25	4.00	4.50	4.00	3.25	6.00
	4.00	3.50	3.50	6.00	2.25	3.00	2.75	3.25	6.00	7.25	3.50	4.00	3.25	4.00	3.25	3.50
	4.00	5.75	4.75	5.50	2.50	4.00	3.00	5.00	4.50	4.00	4.75	7.50	3.00	3.00	3.50	2.50
	4.00	5.00	5.00	5.00	3.50	2.25	3.25	3.25	3.75	4.75	4.25	6.00	3.00	3.00	4.00	3.50
Total	68.25	74.75	64.75	73.50	41.75	55.00	42.25	53.25	61.50	81.00	63.50	81.25	55.00	68.25	54.50	66.25

Recapitulation:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams	grains.	mm.	per ct.
Highest	5.75	88.75	7.50	37.50	3.50	74.02	5.00	25.00	6.00	92.61	7.75	38.75	5.00	77.17	7.00	35.00
Lowest	3.00	46.30	2.75	13.75	2.00	30.87	2.00	10.00	3.00	46.30	3.00	15.00	3.00	46.30	2.00	10.00
Average	4.43	68.37	4.94	24.70	2.69	43.22	3.61	18.05	4.17	64.34	5.41	27.05	3.65	56.34	4.48	22.40
Tests above average	14		17		13		13		14		13		10		14	
Tests below average	16		13		17		17		16		13		14		16	

C.—GERMAN GRADES.

Catalogue number of samples..	325.				326.				327.				328.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	3.00	3.00	3.00	4.00	5.00	4.00	4.00	3.00	4.25	3.00	4.00	4.00	2.75	1.50	3.00	3.25
	2.75	4.25	3.00	6.25	5.00	6.25	3.00	4.00	3.00	2.75	3.50	4.00	2.75	2.50	5.25	5.00
	5.00	5.75	4.75	5.00	3.25	3.50	3.00	3.50	4.00	5.50	3.50	6.75	3.25	5.00	3.25	3.00
	5.50	3.25	4.75	5.00	4.00	3.00	4.50	5.00	4.00	4.00	4.00	6.25	3.75	2.00	3.00	5.00
	3.25	5.50	3.75	5.25	6.00	7.75	4.00	5.75	3.00	6.50	4.00	5.00	3.00	5.75	3.00	4.50
	2.50	4.00	3.00	2.75	5.00	5.75	4.50	6.50	4.00	5.00	4.25	8.00	2.00	1.50	3.00	3.00
	2.50	3.00	2.50	4.00	4.00	6.50	3.50	4.75	3.25	4.50	3.25	3.00	3.00	1.75	3.50	5.25
	2.00	3.50	3.00	4.00	3.00	2.50	3.25	2.00	4.00	5.00	4.00	7.00	3.25	5.00	3.25	4.75
	2.50	3.75	2.75	2.00	3.25	2.00	5.00	6.00	3.75	3.00	4.25	6.25	4.75	6.50	3.00	3.00
	4.00	3.50	4.00	3.00	4.50	3.25	5.50	5.00	3.50	3.25	4.00	5.00	3.00	2.00	3.00	2.25
	2.50	5.00	3.00	5.00	4.75	3.00	3.75	5.00	3.25	5.50	4.00	3.50	4.00	6.00	3.25	4.50
	4.00	5.00	3.00	5.75	3.00	2.00	4.25	3.00	3.00	5.00	3.50	4.50	3.00	2.00	2.00	4.00
	2.50	3.00	5.00	2.50	3.00	2.75	4.50	4.50	4.75	8.75	4.00	5.50	3.00	2.00	3.50	5.50
	4.00	6.75	4.50	5.75	3.00	4.25	4.25	4.75	3.50	6.75	3.25	2.50	3.00	6.50	3.50	3.25
	4.00	5.00	3.50	6.50	4.00	3.75	3.75	3.25	3.25	4.25	3.00	5.50	4.50	5.75	2.00	3.25
Total	50.00	66.25	53.50	66.75	61.00	62.25	60.75	60.50	54.50	82.75	56.50	76.75	49.00	55.75	47.50	59.50

Recapitulation:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	5.50	84.89	6.75	33.75	6.00	92.61	7.75	38.75	4.75	73.31	8.75	43.75	5.25	81.03	6.50	32.50
Lowest	2.00	30.87	2.00	10.00	3.00	46.30	2.00	10.00	3.00	46.30	2.50	12.50	2.00	30.87	1.50	7.50
Average	3.45	53.25	4.43	22.15	4.06	62.66	4.29	21.45	3.70	57.11	5.32	26.60	3.22	49.70	3.64	18.20
Tests above average	13		15		13		15		16		13		13		15	
Tests below average	17		15		17		15		14		17		17		15	

TABLE XXX.—*Actual measurements of strain and stretch for commercial grades*—Continued.

C.—GERMAN GRADES.

Catalogue number of samples..	329.				330.				331.				332.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	4.00	3.75	4.75	6.00	3.25	3.25	4.00	6.00	5.00	6.75	3.50	3.75	3.50	5.00	4.50	7.25
	7.50	8.00	3.00	2.00	4.00	2.75	5.00	5.50	4.00	4.75	4.75	5.25	4.00	8.00	3.00	4.00
	5.50	7.50	5.00	5.00	4.00	5.50	5.00	4.75	3.00	4.50	4.50	7.00	4.50	6.50	4.75	8.00
	4.00	4.00	6.25	8.50	2.50	5.00	4.50	4.00	3.75	5.25	4.00	5.25	4.25	5.00	4.25	6.75
	5.00	3.75	3.50	2.25	4.25	6.25	3.50	5.50	4.00	8.00	4.25	3.75	3.75	7.00	3.50	6.50
	4.25	3.75	3.50	3.00	2.75	4.00	5.50	5.75	3.25	3.50	3.75	7.25	3.25	5.50	4.00	6.25
	4.00	4.75	4.00	4.00	2.50	3.00	4.00	5.00	4.75	7.75	4.00	4.50	3.50	5.50	4.00	7.50
	4.50	6.00	7.50	7.25	4.00	2.25	4.50	4.00	4.00	6.75	3.50	5.00	5.00	6.25	3.75	7.00
	4.00	4.50	3.25	4.00	5.00	5.75	4.50	6.50	4.00	6.00	3.00	5.50	3.00	4.25	3.25	7.50
	4.50	6.75	4.25	3.25	3.00	6.75	3.00	3.75	4.00	5.50	5.00	6.25	3.00	3.00	4.00	3.50
	4.00	3.75	4.75	2.00	4.00	5.50	2.00	2.75	5.00	6.50	5.25	7.25	3.50	4.00	4.00	6.00
	4.00	5.25	4.00	4.50	5.50	4.00	4.25	4.00	5.00	4.75	3.75	4.00	5.50	8.00	3.75	6.00
	3.25	3.25	5.00	5.75	4.00	5.00	3.00	6.00	3.25	4.75	4.75	5.50	5.50	7.00	3.50	7.50
	5.00	3.75	3.00	5.00	3.00	5.00	3.50	5.50	3.00	4.25	4.50	7.00	5.00	7.00	4.00	6.50
	3.00	2.75	4.50	6.50	5.00	5.50	2.50	4.75	4.50	4.00	5.00	6.00	3.25	3.25	4.00	6.00
Total	66.50	71.50	66.25	70.00	56.75	69.50	58.75	73.25	60.50	83.00	63.50	83.25	60.50	85.25	58.25	96.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	7.50	115.76	8.50	42.50	5.50	84.89	6.75	33.75	5.25	81.03	8.00	40.00	5.50	84.89	8.00	40.00
Lowest	3.00	46.30	2.00	10.00	2.00	30.87	2.25	11.25	3.00	46.30	3.50	17.50	3.00	46.30	3.00	15.00
Average	4.43	68.37	4.72	23.60	3.85	59.42	4.76	23.80	4.13	63.74	5.54	27.70	3.96	61.12	6.05	30.25
Tests above average	13		13		18		17		13		12		15		17	
Tests below average	17		17		12		13		17		18		14		13	

C.—GERMAN GRADES.

Catalogue number of samples..	333.				334.				335.				336.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	[illegible]	*grams.*	[illegible]	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	[illegible]	*grams.*	[illegible]	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	6.00	5.50	5.25	1.50	4.75	6.00	4.50	5.75	7.00	2.50	6.50	3.25	3.00	2.25	3.75	3.50
	4.25	2.00	4.00	5.50	7.00	7.00	7.00	4.25	7.00	6.50	7.00	3.00	3.50	1.50	5.25	5.50
	3.75	2.75	0.25	7.50	6.00	5.00	4.00	5.00	5.00	4.00	6.00	5.25	5.00	4.50	4.00	2.25
	5.50	4.50	4.25	1.50	3.25	5.50	6.50	4.50	5.75	4.00	7.00	5.50	5.00	3.50	4.50	5.50
	5.75	6.00	5.00	2.75	5.00	4.50	3.50	4.25	8.00	5.25	5.00	4.00	5.50	5.50	5.00	4.50
	4.50	3.50	6.00	6.25	4.50	7.00	5.00	6.25	6.00	4.00	4.50	4.25	5.75	5.50	4.00	2.50
	5.25	5.50	6.50	3.25	6.50	6.00	5.00	4.50	5.75	3.00	8.75	6.00	5.50	2.50	3.75	2.25
	5.00	3.00	4.75	4.75	6.50	4.50	5.00	6.50	4.00	2.50	5.00	5.00	3.25	4.00	3.00	3.25
	5.00	4.00	7.50	4.50	4.00	4.00	5.00	6.00	6.00	7.50	8.00	7.00	3.00	2.75	3.75	3.00
	6.75	4.00	5.00	4.50	4.00	4.25	4.50	4.75	6.00	4.00	5.50	4.75	4.00	2.25	3.00	2.25
	5.00	4.50	5.75	4.50	4.25	5.00	5.00	2.50	8.00	6.00	5.00	3.00	3.25	1.75	4.00	2.50
	4.25	5.25	4.25	6.00	4.00	2.75	4.00	7.00	6.00	2.00	8.00	6.50	3.00	2.25	5.00	5.00
	4.75	2.75	4.25	6.00	4.75	5.00	3.50	2.75	8.00	7.00	8.00	2.50	3.00	1.75	4.00	6.50
	5.00	2.25	4.25	4.25	4.25	5.25	5.75	2.50	5.00	5.00	5.00	3.00	3.00	2.50	3.50	[illegible]
	4.00	4.00	4.00	5.00	3.50	5.75	4.00	4.50	7.00	4.25	4.50	3.25	5.00	3.00	5.25	5.75
Total	74.75	59.50	77.00	67.75	72.25	77.50	72.25	71.00	94.50	67.50	93.75	66.25	60.75	45.50	61.75	58.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	[illegible]	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	7.50	115.76	7.50	37.50	7.00	108.04	7.00	35.00	8.75	135.05	7.50	37.50	5.75	88.75	5.75	28.75
Lowest	3.75	57.88	1.50	7.50	3.25	50.16	2.50	12.50	4.00	61.74	2.00	10.00	3.00	46.30	1.50	7.50
Average	5.08	78.10	4.24	21.20	4.82	74.39	4.95	24.75	6.28	96.93	4.46	22.30	4.08	62.97	3.47	17.35
Tests above average	11		17		13		16		[illegible]		13		11		[illegible]	
Tests below average	19		13		17		14		17		17		19		17	

TABLE XXX.—*Actual measurements of strain and stretch for commercial grades*—Continued.

C.—GERMAN GRADES.

Catalogue No. of samples..	337.		338.		339.		340.		341.	
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	gms.	mm.	gms.	mm.	gms.	mm.	gms.	mm.	gms.	mm.
	5.00	6.50	4.50	2.50	3.25	6.50	5.00	6.00	6.50	6.25
	3.50	4.75	4.00	6.00	2.50	5.00	3.25	3.50	5.00	6.50
	2.50	4.25	2.00	2.00	2.25	2.50	3.25	4.25	5.50	7.50
	3.75	2.50	3.00	4.00	2.50	4.25	6.00	4.50	9.75	6.25
	3.25	6.75	4.00	2.25	3.00	4.50	4.25	6.00	4.00	5.00
	5.00	4.25	4.00	3.00	3.00	2.75	8.50	7.00	5.25	5.00
	2.00	2.50	2.00	2.00	2.50	6.00	5.00	3.25	4.25	2.50
	4.00	5.25	3.00	3.50	4.25	5.50	5.00	7.00	7.00	7.00
	3.25	3.50	4.00	3.00	3.50	6.50	5.75	5.25	5.50	6.25
	3.00	2.25	3.00	2.25	4.00	6.00	7.50	6.00	6.00	6.50
	4.00	5.50	3.00	2.75	3.75	5.25	8.75	6.25	4.50	6.25
	2.75	4.00	2.00	3.00	2.00	3.50	5.50	7.50	6.00	3.50
	5.25	5.25	4.00	4.75	4.50	3.75	6.00	5.25	7.75	6.25
	3.00	3.25	2.00	2.25	3.00	3.50	6.50	6.00	8.75	2.50
	2.50	5.50	4.75	3.00	2.75	2.75	5.75	4.75	9.00	8.00
Total	51.75	60.00	53.50	78.50	47.75	45.75	47.50	44.25	46.50	71.50
	46.00	59.50	90.00	79.25	91.00	91.00	98.00	86.25	97.00	93.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	gms.	grs.	mm.	p. ct.	gms.	grs.	mm.	p. ct.	gms.	grs.	mm.	p. ct.	gms.	grs.	mm.	p. ct.	gms.	grs.	mm.	p. ct.
Highest	5.00	77.17	6.75	33.75	4.50	69.46	6.00	30.00	4.25	65.60	6.50	32.50	8.75	135.05	7.50	37.50	9.75	150.49	8.50	42.50
Lowest	2.50	38.59	2.25	11.25	2.00	30.87	1.50	7.50	2.00	30.87	2.00	10.00	4.25	65.60	2.75	13.75	4.00	61.74	2.50	12.50
Average	3.51	54.18	4.82	24.10	3.18	49.08	3.00	15.00	3.08	47.54	4.37	21.85	6.03	93.01	5.08	28.40	6.50	100.33	6.00	30.00
Tests above average	10		13		12		11+		13		15		9		19		11+		19+	
Tests below average	20		12		18		10+		17		15		21		11		10+		10+	

C.—GERMAN GRADES.

Catalogue No of samples..	342.		343.		344.		345.		346.	
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	gms.	mm.	gms.	mm.	gms.	mm.	gms.	mm.	gms.	mm.
	4.00	5.75	3.25	3.25	3.00	4.00	4.00	2.50	5.00	8.25
	3.00	5.00	4.00	3.00	3.00	2.25	5.00	7.00	6.50	6.50
	3.00	7.25	2.50	6.50	2.00	3.00	2.50	4.50	3.00	7.00
	3.00	4.00	2.75	3.75	4.00	7.00	4.75	4.25	7.50	7.00
	4.75	6.50	2.25	3.50	4.00	4.75	5.50	3.50	5.25	6.25
	3.50	5.75	2.50	4.75	2.25	2.00	3.50	5.00	4.00	2.75
	2.75	4.50	2.75	6.25	2.50	3.50	5.00	5.00	5.75	8.50
	3.00	5.00	3.50	5.00	4.00	4.00	2.50	5.25	4.00	3.00
	4.00	7.25	3.00	6.75	3.50	5.50	3.00	3.00	5.25	3.75
	2.25	4.25	3.50	5.25	3.75	3.00	2.25	4.00	4.00	2.00
	4.50	4.25	2.25	5.00	2.50	3.75	4.50	4.50	5.75	7.25
	4.00	6.50	3.25	6.00	4.00	4.00	2.25	3.75	6.25	7.00
	3.00	4.00	3.25	3.50	3.25	4.25	2.50	4.75	4.25	7.50
	2.75	4.00	4.75	3.00	2.00	5.75	2.75	3.00	4.25	4.50
	2.50	2.75	4.50	5.25	2.75	2.50	3.75	4.75	6.75	6.00
Total	50.00	78.25	48.00	71.25	49.75	59.75	50.75	70.00	84.00	82.00
	82.00	79.50	65.25	30.50	66.25	27.50	95.00	74.00	92.75	73.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	gms.	grs.	mm.	p. ct.	gms.	grs.	mm.	p. ct.	gms.	grs.	mm.	p. ct.	gms.	grs.	mm.	p. ct.	gms.	grs.	mm.	p. ct.
Highest	4.75	73.31	7.25	36.25	5.50	84.89	7.00	35.00	8.25	127.34	8.50	42.50	6.25	96.47	8.25	16.25	8.75	135.05	8.25	41.25
Lowest	2.25	34.73	3.00	15.00	2.00	30.87	2.00	10.00	4.00	61.74	2.00	10.00	2.50	38.59	1.00	5.00	4.00	61.74	2.00	10.00
Average	3.27	50.47	4.98	24.90	3.35	51.77	4.33	21.65	5.53	85.25	5.38	26.90	4.38	67.60	4.23	9.65	6.26	96.62	4.91	24.55
Tests above average	11		16		13		14		11		13		13		15		15		16	
Tests below average	19		14		17		13		13		14		14		15		15		14	

TABLE XXXI.—*Individual extremes and averages of strain and stretch for commercial grades.*

Catalogue No. of samples.	Grade.	STRAIN.						STRETCH.					
		Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
	BOSTON GRADES.	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*m. m.*	*per ct.*	*m. m.*	*per ct.*	*m. m.*	*per ct.*
275 *a*	Fine, unwashed	5.25	81.03	2.00	30.86	3.31	51.08	8.25	41.25	1.50	7.50	4.80	24.00
275 *b*	....do	14.00	216.08	3.50	54.02	7.65	118.07	8.50	42.50	1.75	8.75	5.65	28.25
275 *c*	....do	7.75	119.61	3.25	51.16	5.26	81.18	7.75	38.75	1.00	5.00	5.43	27.15
275 *d*	....do	6.00	92.60	2.25	34.72	3.84	59.26	9.25	46.25	1.25	6.25	6.31	31.55
275 *e*	....do	9.75	150.48	4.00	61.74	6.73	103.87	8.25	41.25	1.50	7.50	5.11	25.55
276	Fine, from dead sheep	7.00	108.04	2.50	38.58	4.33	66.83	9.00	45.00	2.50	12.50	6.48	32.40
277 *a*	Picklock	3.50	54.02	1.00	15.43	2.27	35.03	8.75	43.75	1.25	6.25	5.28	26.40
277 *b*	....do	3.25	50.16	1.25	19.29	2.20	33.95	8.75	43.75	3.25	16.25	6.67	33.35
277 *c*	....do	3.00	46.30	1.25	19.29	1.98	30.50	9.75	48.75	4.75	23.75	7.77	38.85
278 *a*	XXX	3.50	54.02	1.25	19.29	2.28	35.19	9.25	46.25	2.50	12.50	6.41	32.05
278 *b*	XXX	6.00	92.60	2.00	30.86	3.42	52.78	8.25	41.25	1.50	7.50	6.32	31.60
279 *a*	XX	6.75	104.18	2.25	34.72	4.05	62.51	6.50	32.50	2.00	10.00	4.25	21.25
279 *b*	XX	12.50	192.93	3.25	50.16	6.10	94.15	8.00	40.00	2.25	11.25	5.38	26.90
279 *c*	XX	7.00	108.14	1.50	23.15	4.13	63.74	7.00	35.00	1.00	5.00	3.47	17.35
279 *d*	XX	6.75	104.18	3.00	46.30	4.33	66.83	7.50	37.50	2.50	12.50	4.75	23.75
280 *a*	X	8.25	127.33	2.00	30.86	5.30	81.80	8.50	42.50	1.50	7.50	4.60	23.00
280 *b*	X	8.50	131.19	3.00	46.30	4.85	74.85	8.75	43.75	1.50	7.50	5.57	27.85
280 *c*	X	10.25	158.20	3.00	46.30	6.32	97.54	9.50	47.50	3.50	17.50	6.97	34.85
280 *d*	X	9.25	142.76	2.50	38.58	5.54	85.50	8.50	42.50	2.00	10.00	5.90	47.50
274	Between X and 1	10.00	154.34	1.50	23.15	3.92	60.50	6.00	30.00	0.75	3.75	2.97	14.85
281 *a*	No. 1	13.00	200.64	5.00	77.17	8.35	128.87	7.50	37.50	2.00	10.00	4.72	23.60
281 *b*	....do	5.75	88.74	3.00	46.30	4.45	68.68	7.50	37.50	2.25	11.25	4.71	23.55
281 *c*	....do	10.00	154.34	3.50	54.02	7.08	109.27	7.25	36.25	2.00	10.00	4.00	20.00
281 *d*	....do	8.00	123.48	2.50	38.58	5.22	80.56	6.00	30.00	1.50	7.50	3.27	16.35
281 *e*	....do	7.75	119.61	2.50	38.58	4.97	76.70	6.00	30.00	1.00	5.00	2.90	14.50
281 *f*	....do	6.30	97.23	8.75	135.05	4.25	65.59	4.43	22.15	7.75	38.75	1.50	7.50
282 *a*	No. 2	17.25	265.24	5.00	77.17	9.94	153.41	7.75	38.75	1.25	6.25	4.51	22.55
282 *b*	....do	15.50	239.23	5.50	84.89	9.77	150.79	8.75	43.75	1.50	7.50	5.50	27.50
282 *c*	....do	23.00	346.99	7.50	115.75	14.49	218.55	8.50	42.50	1.25	6.25	4.87	24.35
282 *d*	....do	17.00	262.38	6.50	100.32	10.44	161.13	7.00	35.00	2.00	10.00	4.37	21.85
283 *a*	Delaine, fine	9.25	142.76	3.25	50.16	5.80	89.52	8.25	41.25	1.25	6.25	5.25	26.25
283 *b*	....do	7.50	115.75	3.00	46.30	4.83	74.54	8.00	40.00	2.50	12.50	5.85	29.25
283 *c*	....do	8.25	127.33	3.25	50.16	5.44	83.96	7.25	36.25	1.25	6.25	3.62	18.10
284 *a*	Delaine, medium	20.00	308.68	6.75	104.18	11.45	176.75	9.00	45.00	1.25	6.25	5.62	28.10
284 *b*	....do	15.25	235.37	5.00	77.17	9.06	139.83	8.25	41.25	1.50	7.50	4.75	23.75
285 *a*	Combing, fine	15.50	239.23	5.75	88.74	8.77	135.36	8.00	40.00	1.25	6.25	3.61	18.05
285 *b*	....do	12.25	189.07	3.50	54.02	7.15	110.37	7.50	37.50	1.25	6.25	3.30	16.50
285 *c*	....do	14.75	227.66	5.00	77.17	8.86	136.75	8.75	43.75	3.00	15.00	5.95	29.75
286 *a*	Combing, medium	19.00	293.25	5.00	77.17	10.69	164.99	7.50	37.50	1.50	7.50	4.62	23.10
286 *b*	....do	19.00	293.25	4.00	61.73	9.90	152.80	8.00	40.00	1.25	6.25	4.08	20.40
286 *c*	....do	16.50	254.67	5.50	84.89	8.66	113.66	7.75	38.75	1.00	5.00	4.55	22.75
286 *d*	....do	16.25	250.81	5.00	77.17	10.17	156.96	8.00	40.00	1.50	7.50	4.47	22.35
287 *a*	Combing, coarse	31.00	478.47	12.00	185.21	20.30	313.32	8.50	42.50	4.00	20.00	7.15	35.75
287 *b*	....do	34.00	524.77	11.00	169.78	22.13	341.56	9.00	45.00	5.00	25.00	7.18	35.90
287 *c*	....do	23.00	354.91	6.50	100.32	13.35	206.05	8.25	41.25	1.50	7.50	5.50	27.50
287 *d*	....do	29.00	447.60	7.25	111.90	14.60	225.34	8.50	42.50	2.00	10.00	4.76	23.80
288 *a*	Common	21.75	335.75	9.50	146.62	16.30	251.52	8.75	43.75	2.00	10.00	6.14	30.70
288 *b*	....do	25.00	377.08	5.75	88.74	14.34	221.33	8.75	43.75	2.00	10.00	5.53	27.65
289 *a*	New Mexico	7.00	108.04	2.75	42.44	4.33	66.83	6.00	30.00	1.75	8.75	3.47	17.35
289 *b*	....do	15.00	231.51	4.00	61.73	8.50	131.19	8.00	40.00	1.50	7.50	3.97	19.85
289 *c*	....do	60.00	926.07	3.75	57.87	27.65	426.76	9.50	47.50	2.00	10.00	6.96	34.80
	PHILADELPHIA GRADES.												
290	Picklock, best	5.00	77.17	2.00	30.86	3.00	46.30	8.50	42.50	4.25	21.25	6.15	30.75
291	....do	5.75	88.74	3.00	46.30	4.60	70.99	9.00	45.00	3.25	16.25	6.30	31.50
292	....do	6.50	100.32	3.00	46.30	4.67	72.08	8.75	43.75	2.50	12.50	5.42	27.10
293	....do	5.00	77.17	2.00	30.86	3.05	47.07	6.25	31.25	2.50	12.50	4.51	22.55
294	XXX	5.25	81.03	2.25	34.72	3.44	53.09	8.75	43.75	2.00	10.00	5.52	27.60
295 *a*	XXX	6.75	104.18	3.25	50.16	4.91	75.77	8.25	41.25	2.00	10.00	4.15	20.75
295 *b*	XXX	6.00	92.60	3.00	46.30	4.40	67.91	6.50	32.50	1.50	7.50	3.90	19.50
295 *c*	XXX	5.25	81.03	2.25	34.72	3.30	50.93	8.00	40.00	1.50	7.50	4.90	24.50
296	XXX	7.25	111.90	2.00	30.86	5.06	78.09	8.50	42.50	2.50	12.50	5.13	25.65
297	XX	5.50	84.89	2.25	34.72	3.70	57.10	8.00	40.00	1.50	7.50	4.45	22.25
298 *a*	XX	9.50	146.62	4.25	65.59	6.40	98.78	8.50	42.50	2.00	10.00	4.90	24.50
298 *b*	XX	9.25	142.76	3.00	46.30	6.05	93.37	8.50	42.50	3.00	15.00	5.58	27.90
298 *c*	XX	6.50	100.32	2.50	38.58	4.45	68.68	8.75	43.75	2.50	12.50	5.45	27.25
298 *d*	XX	6.75	104.18	2.75	42.44	4.61	71.15	8.00	40.00	2.00	10.00	4.85	24.25
298 *e*	XX	5.75	88.74	2.00	30.86	3.63	56.02	8.50	42.50	1.75	8.75	4.48	22.40
299	XX	8.25	127.33	3.00	46.30	5.67	87.51	8.00	40.00	2.00	10.00	4.70	23.50
300	X	8.50	131.19	3.00	46.30	5.23	80.72	7.75	38.75	1.50	7.50	4.28	21.40
301 *a*	X	8.50	131.19	2.50	38.58	5.11	78.87	6.00	30.00	2.00	10.00	3.45	17.25
301 *b*	X	8.50	131.19	2.50	38.58	5.00	77.17	7.00	35.00	2.00	10.00	3.92	19.60
302	X	7.25	111.90	2.75	42.44	5.03	77.63	6.00	30.00	1.25	6.25	3.68	18.40
303	Delaine, fine	8.25	127.33	3.50	54.02	5.95	91.83	8.50	42.50	3.00	15.00	6.50	32.50
304	Delaine, very fine	10.50	162.05	4.50	69.45	7.22	111.43	8.25	41.25	2.25	11.25	5.85	29.25
305 *a*	X and above	10.00	154.38	4.00	61.74	6.20	76.01	8.50	42.50	2.25	11.25	5.91	29.55
305 *b*	....do	8.50	131.19	3.50	54.02	5.75	88.74	8.50	42.50	2.50	12.50	5.97	29.85
306 *a*	....do	7.00	108.04	3.25	50.16	5.35	82.57	8.25	41.25	4.25	21.25	6.65	33.25
306 *b*	....do	7.00	108.04	3.25	50.16	4.81	74.23	8.75	43.75	5.25	25.00	7.18	35.90
306 *c*	....do	6.75	104.18	3.00	46.30	4.43	68.37	8.75	43.75	4.50	22.50	6.69	33.45
307 *a*	....do	8.75	135.05	2.25	34.72	5.03	77.63	8.25	41.25	1.00	5.00	3.43	17.15
307 *b*	....do	9.50	146.62	3.00	46.30	5.75	88.74	7.25	36.25	2.00	10.00	4.91	24.55
307 *c*	....do	8.00	123.47	3.25	50.16	5.96	91.99	7.25	36.25	2.00	10.00	4.67	23.35
307 *d*	....do	8.75	135.05	3.00	46.30	5.19	80.10	8.50	42.50	2.25	11.25	5.35	26.75
307 *e*	....do	11.50	177.50	3.25	50.16	6.04	93.22	8.50	42.50	2.00	10.00	5.73	28.65
308 *a*	Low combing, ¼ series	15.25	235.38	4.50	69.45	9.08	140.14	8.25	41.25	2.00	10.00	5.14	25.70
308 *b*	....do	16.25	250.81	6.75	104.18	10.66	164.53	8.50	42.50	1.75	8.75	5.51	27.55
308 *c*	....do	17.00	262.39	6.00	92.61	10.94	168.85	8.75	43.75	3.00	15.00	6.93	34.65
308 *d*	....do	16.75	258.53	5.75	88.75	10.80	166.69	8.50	42.50	2.50	12.50	6.13	30.15
309 *a*	....do	17.50	270.11	6.00	92.61	9.61	148.33	8.25	41.25	1.25	6.25	5.42	27.10
309 *b*	....do	14.00	216.08	6.00	92.61	9.70	149.72	7.75	38.75	1.25	6.25	4.22	21.60
310 *a*	....do	26.25	405.16	10.00	154.35	17.51	270.26	8.75	43.75	3.00	15.00	6.26	31.30
310 *b*	....do	33.00	509.34	10.00	154.35	22.74	350.98	8.50	42.50	3.25	16.25	6.75	33.75
310 *c*	....do	42.00	648.25	10.00	154.35	22.11	341.26	8.50	42.50	2.00	10.00	4.30	26.50
311 *a*	Low combing, ⅜ series	20.00	308.69	5.00	77.17	8.93	137.83	8.78	43.75	1.50	7.50	5.21	26.50
311 *b*	....do	18.75	289.40	6.25	96.47	10.12	156.20	8.00	40.00	2.00	10.00	4.80	24.00
311 *c*	....do	18.75	289.40	6.00	92.61	10.75	165.01	9.00	45.00	2.00	10.00	5.63	28.15
311 *d*	....do	10.25	158.20	2.50	38.59	5.93	91.53	7.75	38.75	1.25	6.25	4.18	20.90
312	....do	19.00	293.26	5.25	81.03	11.04	170.40	8.25	41.25	2.00	10.00	4.86	24.30

TABLE XXXI.—*Individual extremes and averages of strain and stretch for commercial grades*—Continued.

Catalogue No. of samples.	Grade.	STRAIN.						STRETCH.					
		Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
	PHILADELPHIA GRADES.	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*m. m.*	*per ct.*	*m. m.*	*per ct.*	*m. m.*	*per ct.*
313 *a*	Low combing, mixed ⅜, ½	16.00	246.95	4.25	65.60	8.99	138.76	7.00	35.00	1.25	6.25	3.53	17.65
313 *b*	....do	14.00	216.08	5.00	77.17	8.81	135.98	6.75	33.75	1.00	5.00	2.51	12.55
313 *c*	....do	23.75	366.57	5.00	77.17	13.07	201.73	8.00	40.00	2.00	10.00	4.77	23.85
314 *a*	General medium, ½ series	10.00	154.35	3.25	50.16	5.74	87.59	8.75	43.75	1.75	8.75	3.94	19.70
314 *b*	....do	8.00	123.48	3.75	57.88	5.95	91.84	8.00	40.00	1.25	6.05	4.51	22.55
315 *a*	....do	10.00	154.35	5.00	77.17	6.96	107.43	8.75	43.75	2.00	10.00	4.11	20.55
315 *b*	....do	11.00	169.78	3.50	54.02	6.15	94.92	7.50	37.50	1.25	6.25	3.48	17.40
316	Combing, ½ series	14.00	216.08	5.00	77.17	6.25	96.47	8.00	40.00	2.00	10.00	4.66	23.30
317 *a*	Combing, ½ series	6.25	96.47	3.25	50.16	4.58	70.69	6.00	30.00	1.50	7.50	3.13	15.65
317 *b*	....do	8.50	131.19	3.00	46.30	5.07	78.25	8.00	40.00	1.25	6.25	4.58	22.90
317 *c*	....do	6.75	104.18	3.00	46.30	5.23	80.72	7.25	36.25	2.00	10.00	5.05	25.25
318	Cotswold	27.00	416.73	13.25	204.50	20.07	309.77	8.50	42.50	2.00	10.00	6.47	32.35
319 *a*	Imported Saxon	4.00	61.74	1.50	23.15	2.80	43.22	6.75	33.75	1.25	6.25	3.73	18.65
319 *b*	....do	4.00	61.74	2.00	30.87	2.66	41.06	6.50	32.50	1.50	7.50	3.57	17.85
320	Domestic Saxon	2.50	38.59	1.75	27.01	2.11	32.57	8.00	39.00	2.00	10.00	4.11	20.55

TABLE XXXII.—*General extremes and averages of strain and stretch for commercial grades.*

Catalogue No. of samples.	Grade.	STRAIN.						STRETCH.					
		Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
		grams.	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per ct.*	*mm.*	*per ct.*	*mm.*	*per ct.*
	A.—BOSTON GRADES.												
274	Between X and No. 1	10.00	154.34	1.50	23.15	3.92	60.50	6.00	30.00	0.75	3.75	2.97	14.85
275	Fine, unwashed	8.55	131.97	3.00	46.30	5.34	82.42	8.40	42.00	1.40	7.00	5.46	27.30
276	Fine, from dead sheep	7.00	108.04	2.50	38.58	4.33	66.83	9.00	45.00	2.50	12.50	6.48	32.40
277	Picklock	3.25	50.16	1.17	18.06	2.15	33.18	9.08	45.40	3.08	15.40	6.57	32.85
278	XXX	4.75	73.31	1.63	25.16	2.85	43.99	8.75	43.75	2.00	10.00	6.37	31.85
279	XX	8.25	127.34	3.33	51.40	4.65	71.77	7.25	36.25	1.94	9.70	4.46	22.30
280	X	9.06	139.84	2.63	40.59	5.50	84.89	8.81	44.05	4.25	21.25	5.76	28.80
281	No. 1	8.47	130.73	4.21	64.98	5.72	83.29	6.48	32.40	2.75	13.75	3.52	12.60
282	No. 2	18.19	280.76	6.13	94.61	11.16	172.25	8.00	40.00	1.50	7.50	4.81	24.05
283	Delaine, fine	8.33	128.57	3.17	48.93	5.36	82.73	7.83	39.15	1.67	8.35	4.91	24.55
284	Delaine, medium	17.03	272.11	5.88	90.76	6.84	105.57	8.63	43.15	1.38	6.90	5.19	25.95
285	Combing, fine	14.17	218.72	4.75	73.31	8.26	127.49	8.08	40.40	1.83	9.15	4.29	21.45
286	Combing, medium	17.69	273.04	4.88	75.32	9.86	152.18	7.81	39.05	1.31	6.55	4.43	22.15
287	Combing, coarse	29.25	451.46	9.19	141.84	17.60	271.65	8.81	44.05	3.13	15.65	6.15	30.75
288	Common	23.38	360.86	7.63	117.77	15.32	236.46	8.75	43.75	2.00	10.00	5.34	26.70
289	New Mexico	27.33	421.83	3.50	54.02	13.49	208.21	7.83	39.15	1.75	8.75	4.80	24.00
	B.—PHILADELPHIA GRADES.												
290	Picklock, best	5.00	77.17	2.00	30.86	3.00	46.30	8.50	42.50	4.25	21.25	6.15	30.75
291	Picklock, fair	5.75	88.74	3.00	46.30	4.60	10.99	9.00	45.00	3.25	16.25	6.30	31.50
292	Picklock, medium	6.50	100.32	3.00	46.30	4.67	72.08	8.75	43.75	2.50	12.50	5.42	27.10
293	Picklock, low	5.00	77.17	2.00	30.86	3.05	47.07	6.25	31.25	2.50	12.50	4.51	22.55
294	XXX, extra	5.25	81.03	2.25	34.72	3.44	53.09	8.75	43.75	2.00	10.00	5.52	27.60
295	XXX, good	6.00	92.61	2.83	43.68	4.23	65.29	7.58	37.90	1.67	8.35	4.28	21.40
296	XXX, low	7.25	111.90	2.00	30.86	5.06	78.09	8.50	42.50	2.50	12.50	5.13	25.65
297	XX, good	5.50	84.89	2.25	34.72	3.70	57.10	8.00	40.00	1.50	7.50	4.45	22.25
298	XX, clothing	7.55	116.53	2.90	44.76	5.03	77.64	8.45	42.25	2.25	11.25	5.05	25.25
299	XX, low	8.25	127.33	3.00	46.30	5.67	87.51	8.00	40.00	2.00	10.00	4.70	23.50
300	X, good	8.50	131.19	3.00	46.30	5.23	80.72	7.75	38.75	1.50	7.50	4.28	21.40
301	X, fair	8.50	131.19	2.50	38.59	5.05	77.94	6.50	32.50	2.00	10.00	3.69	18.45
302	X, low	7.25	111.90	2.75	42.44	5.03	77.63	6.00	30.00	1.25	6.25	3.68	18.40
303	Delaine, fine	8.25	127.33	3.50	54.02	5.95	91.83	8.50	42.50	3.00	15.00	6.50	32.50
304	Delaine, very fine	10.50	162.05	4.50	69.45	7.22	111.43	8.25	41.25	2.25	11.25	5.85	29.25
305	X and above	9.25	142.77	3.75	57.88	5.98	92.30	8.50	42.50	2.38	11.90	5.94	29.70
306	....do	6.92	106.81	3.17	48.93	4.86	75.01	8.58	42.90	4.58	22.90	6.84	34.20
307	....do	9.30	143.54	2.95	45.53	5.60	86.43	7.95	39.75	1.85	9.25	4.83	24.10
308	One-quarter blood, good	16.31	251.74	5.75	88.75	10.37	160.06	8.50	42.50	2.31	11.55	5.93	29.65
309	Combing	15.75	243.09	6.00	92.61	9.66	149.10	8.00	40.00	1.25	6.25	4.82	24.10
310	Combing, low	33.75	520.92	10.00	154.35	20.79	320.88	8.58	42.90	2.75	13.75	6.10	30.50
311	Three-eighths blood, good	16.94	261.46	4.94	76.25	8.93	137.83	8.38	41.90	1.69	8.45	4.96	24.80
312	Combing	19.00	293.26	5.25	81.03	11.04	170.40	8.25	41.25	2.00	10.00	4.86	24.30
313	Three-eighths and one-half blood	17.92	276.59	4.75	73.31	10.29	158.82	7.25	36.25	1.42	7.10	3.60	18.00
314	One-half blood, high	9.00	138.91	3.50	54.02	5.85	90.29	8.38	41.90	1.50	7.50	4.23	21.15
315	One-half blood, regular	16.50	162.06	4.25	65.60	6.56	101.25	8.13	40.65	1.63	8.15	3.79	18.95
316	Combing, washed	14.00	216.08	5.00	77.17	6.25	96.47	8.00	40.00	2.00	10.00	4.66	23.30
317	Five-eighths blood	7.17	110.67	3.08	47.54	4.96	76.56	7.08	35.40	1.58	7.90	4.26	21.30
318	Cotts	27.00	416.73	13.25	204.50	20.07	309.77	8.50	42.50	2.00	10.00	6.47	32.35
319	Saxon, imported	4.00	61.74	1.75	27.01	2.73	42.14	6.63	33.15	1.38	6.90	3.65	18.25
320	Saxon, domestic	2.50	38.59	1.75	27.01	2.11	32.57	6.00	30.00	2.00	10.00	4.11	20.55
	C.—GERMAN GRADES.												
321	Super-superelecta	5.75	88.75	3.00	46.30	4.43	68.37	7.50	37.50	2.75	13.75	4.94	24.70
322	....do	3.50	74.02	2.00	30.87	2.80	43.22	5.00	25.00	2.00	10.00	3.61	18.05
323	Superelecta	6.00	92.61	3.00	46.30	4.17	64.34	7.75	38.75	3.00	15.00	5.41	27.05
324	....do	5.00	77.17	3.00	46.30	3.65	56.34	7.00	35.00	2.00	10.00	4.48	22.40
325	I, electa	5.50	84.89	2.00	30.87	3.45	53.25	6.75	33.75	2.00	10.00	4.43	22.15
326	....do	6.00	92.61	3.00	46.30	4.03	62.66	7.75	38.75	2.00	10.00	4.29	21.45
327	II, electa	4.75	73.31	3.00	46.30	3.70	57.11	8.75	43.75	2.50	12.50	5.32	26.60
328	....do	5.25	81.03	2.00	30.87	3.22	49.70	6.50	32.50	1.50	7.50	3.84	19.20
329	I, prima	7.50	115.76	3.00	46.30	4.43	68.37	8.50	42.50	2.00	10.00	4.72	23.60
330	....do	5.50	84.89	2.00	30.87	3.85	59.42	6.75	33.75	2.25	11.25	4.76	23.80
331	II, prima	5.25	81.03	3.00	46.30	4.13	63.74	8.00	40.00	3.50	17.50	5.54	27.70
332	....do	5.50	84.89	3.00	46.30	3.96	61.12	8.00	40.00	3.00	15.00	6.05	30.25
333	Secunda	7.50	115.76	3.75	57.88	5.06	78.10	7.50	37.50	1.50	7.50	4.24	21.20
334	Tertia	7.00	108.04	3.25	50.16	4.82	74.39	7.00	35.00	2.50	12.50	4.95	24.75
335	Quarta	8.75	135.05	4.00	61.74	6.28	96.93	7.50	37.50	2.00	10.00	4.46	22.30
336	High-pedigree wool	5.75	88.75	3.00	46.30	4.08	62.97	5.75	28.75	1.50	7.50	3.47	17.35
337	....do	5.00	77.17	2.50	38.59	3.51	54.18	6.75	33.75	2.25	11.25	4.82	24.10
338	Pure-bred, ancient pedigree	4.50	69.46	2.00	30.87	3.18	49.08	6.00	30.00	1.50	7.50	3.00	15.00
339	Impure bred wool	4.25	65.60	2.00	30.87	3.08	47.54	6.50	32.50	2.00	10.00	4.37	21.85
340	French ram	8.75	135.05	4.25	65.60	6.03	93.01	7.50	37.50	2.75	13.75	5.68	28.40
341	Rambouillet	9.75	150.49	4.00	61.74	6.50	100.33	8.00	40.00	2.50	12.50	6.00	30.00
342	English merino	4.75	73.31	2.25	34.73	3.27	50.47	7.25	36.25	3.00	15.00	4.98	24.90
343	Australian ewe	5.50	84.89	2.00	30.87	3.35	51.77	7.00	35.00	2.00	10.00	4.33	21.65
344	Roger ram	8.25	127.34	4.00	61.74	5.53	85.25	8.50	42.50	2.00	10.00	5.38	26.90
345	Rambouillet ewe	6.25	96.47	2.50	38.59	4.38	67.60	3.25	16.25	1.00	5.00	1.93	9.65
346	....do	8.75	135.05	4.00	61.74	6.26	96.62	8.25	41.25	2.00	10.00	4.91	24.55

TABLE XXXIII.—*General averages of all measurements upon commercial grades.*

Catalogue number of samples.	Grade.	Number of crimps per inch.	Length.	Fineness.		Strain.		Stretch.		Strain in grams for same stretch and diameter of fiber reduced to 4 centimillimeters.
			Inches.	Centimillimeters.	Thousandths of inch.	Grams.	Grains.	Millimeters.	Per cent.	
	BOSTON GRADES.									
274	Between X and No. 1	20	4.625	3.114	0.8338	3.92	60.50	2.97	14.85	13.981
275	Fine, unwashed	20	2.625	2.162	0.8511	5.34	82.42	5.46	27.30	18.820
276	Fine, from dead sheep	20	2.500	1.835	0.7224	4.33	66.83	6.48	32.40	20.576
277	Fine, delaine	22	2.063	1.532	0.6031	2.15	33.18	6.57	32.85	14.657
278	XXX	22	2.063	1.567	0.6169	2.85	43.99	6.37	31.85	18.567
279	XX	20	2.250	1.870	0.7362	4.65	71.77	4.46	22.30	21.275
280	X	20	2.750	2.023	0.7964	5.50	84.89	5.76	28.80	21.560
281	No. 1	20	2.229	2.208	0.8693	5.72	88.29	3.52	17.60	18.850
282	No. 2	16	2.844	2.908	1.1448	11.16	172.25	4.81	24.05	21.116
283	Delaine, fine	20	3.375	2.084	0.8204	5.36	82.73	4.91	24.55	19.747
284	Delaine, medium	14	3.375	2.533	0.9972	6.84	105.57	5.19	25.95	17.057
285	Combing, fine	14	3.917	2.526	0.9944	8.26	127.49	4.29	21.45	20.711
286	Combing, medium	10	4.781	2.626	1.0338	9.86	152.18	4.43	22.15	22.877
287	Combing, coarse	.....	6.125	3.420	1.3464	17.60	271.65	6.15	30.75	24.077
288	Common	.....	3.1875	3.431	1.3507	15.32	236.46	5.34	26.70	20.823
289	New Mexico	.....	3.375	2.760	1.0866	13.49	208.21	4.80	24.00	28.211
	PHILADELPHIA GRADES.									
290	Pickblock, best	26	1.625	1.669	0.6570	3.00	46.30	6.15	30.75	17.230
291	Pickblock, fair	26	1.75	1.658	0.6527	4.60	70.99	6.30	31.50	26.780
292	Pickblock, medium	22	1.25	1.76	0.6929	4.67	72.08	5.42	27.10	24.119
293	Pickblock, low	22	2.00	1.435	0.5469	3.05	77.07	4.51	22.55	23.213
294	XXX, extra	26	2.00	1.494	0.5883	3.44	53.09	5.52	27.60	24.659
295	XXX, good	26	2.00	1.687	0.6641	4.23	65.29	4.28	21.40	23.781
296	XXX, low	22	2.25	1.783	0.7019	5.06	78.09	5.13	25.65	25.436
297	XX, good	22	2.50	1.655	0.6515	3.70	57.10	4.45	22.25	21.614
298	XX, clothing	22	2.20	1.859	0.7318	5.03	77.64	5.05	25.25	23.284
299	XX, low	20	2.60	1.736	0.6874	5.67	87.51	4.70	23.50	30.166
300	X, good	20	2.00	1.835	0.7224	5.23	80.72	4.28	21.40	24.853
301	X, fair	20	1.9375	1.932	0.7606	5.05	77.94	3.69	18.45	21.644
302	X, low	20	2.125	1.911	0.7523	5.03	77.63	3.68	18.40	22.037
303	Delaine, fine	20	2.50	1.924	0.7574	5.95	91.83	6.50	32.50	25.715
304	Delaine, very fine	20	2.625	1.946	0.7661	7.22	111.43	5.85	29.25	30.504
305	X, and above	22	2.00	2.133	0.8397	5.98	92.30	5.94	29.70	21.629
306	do	22	2.458	1.949	0.7673	4.86	75.01	6.84	34.20	20.474
307	do	20	2.025	1.983	0.7807	5.60	86.43	4.83	24.10	22.770
308	One-fourth blood, good	14	2.75	2.404	0.9464	10.37	160.06	5.93	29.65	28.757
309	One-fourth, combing	14	3.4375	2.381	0.9381	9.66	149.10	4.82	24.10	27.216
310	Combing, low	.....	5.417	3.568	1.3810	20.79	320.88	6.10	30.50	27.037
311	Three-eighths blood, good	14	2.594	2.573	1.0129	8.03	127.03	4.96	24.80	21.583
312	Three-eighths, combing	.....	2.75	2.563	1.0090	11.04	170.48	4.86	24.30	26.890
313	Three-eighths and ¼ blood	10	2.958	2.513	0.9893	10.23	158.82	3.60	18.00	26.071
314	One-half blood, high	20	2.3125	1.791	0.7051	5.85	90.29	4.23	21.15	29.177
315	One-half blood, regular	.....	1.8125	2.234	0.8795	6.56	101.25	3.79	18.95	21.030
316	Combing, washed	20	3.125	2.162	0.8511	6.25	96.47	4.66	23.30	21.295
317	Five-eighth blood	20	2.125	1.997	0.7862	4.96	76.56	4.26	21.30	19.960
318	Cotts	.....	3.25	2.806	1.1047	20.07	309.77	6.47	32.35	40.782
319	Saxon, imported	26	1.00	1.535	0.6043	2.73	42.14	3.65	18.25	18.540
320	Saxon, domestic	26	1.125	1.328	0.5228	2.11	32.57	4.11	20.55	19.138
	GERMAN GRADES.									
321	Super, superelecta	34	1.125	1.923	0.7570	4.43	68.37	4.94	24.70	19.167
322	do	34	1.00	1.297	0.5499	2.80	43.22	3.61	18.05	26.635
323	Superelecta	30	1.75	1.655	0.6515	4.17	64.34	5.41	27.05	24.359
324	do	30	1.25	1.639	0.6452	3.65	56.34	4.48	22.40	21.742
325	I, electa	27	1.25	1.662	0.6543	3.45	53.25	4.43	22.15	20.420
326	do	27	1.125	1.944	0.6351	4.03	62.06	4.29	21.45	23.286
327	II, electa	25	1.25	1.535	0.6043	3.70	57.11	5.32	26.60	25.127
328	do	25	1.125	1.504	0.5921	3.22	49.70	3.84	19.20	21.612
329	I, prima	22	1.375	1.705	0.6712	4.43	68.37	4.72	2.360	24.383
330	do	22	1.25	1.705	0.6712	3.85	59.42	4.76	23.80	21.190
331	II, prima	20	1.375	1.980	0.7511	4.13	63.74	5.54	27.70	16.857
332	do	20	1.375	1.791	0.7062	3.90	61.12	6.05	30.25	19.989
333	Secunda	18	1.50	2.080	0.8224	5.06	78.10	4.24	21.20	18.562
334	Tertia	16	1.25	1.978	0.7787	4.82	74.39	4.95	24.75	19.714
335	Quarta	14	1.50	2.257	0.8885	6.28	96.93	4.46	22.30	19.725
336	High pedigree wool	28	1.25	1.953	0.7688	4.08	62.97	3.47	17.35	17.116
337	do	25	1.25	1.682	0.6621	3.51	54.18	4.82	24.10	19.852
338	Pure-bred, ancient pedigree	22	1.875	1.894	0.7456	3.18	49.08	3.00	15.00	14.185
339	Impure-bred wool	25	1.25	1.661	0.6539	3.08	47.54	4.37	21.85	17.862
340	French ram	16	3.50	2.130	3.8409	6.03	93.01	5.68	28.40	21.149
341	Rambouillet	20	3.125	2.120	0.8346	6.50	100.34	6.00	30.00	23.119
342	English merino	.....	.....	1.615	0.6358	3.27	50.47	4.98	24.90	20.061
343	Australian ewe	16	1.625	1.683	0.6625	3.35	51.77	4.33	21.65	18.920
344	Roger ram	16	2.125	2.365	0.9311	5.53	85.25	5.38	26.90	15.820
345	Rambouillet ewe	20	4.125	2.487	0.9791	4.38	66.60	1.93	9.65	11.331
346	do	15	4.00	2.196	0.8645	6.26	96.62	4.91	24.55	20.771

CHAPTER VII.

ULTIMATE VALUE OF THE WOOLS EXAMINED.

Referring to the description and discussion of Table XIV, in the preceding pages of this report, we find a statement of the method employed for the determination of the tensile strain necessary to produce a stretch in the fibers and the permanent stretch or set corresponding with such strain and total stretch. Selection of typical results from Table XIV has been made by my friend and colleague N. Clifford Ricker, professor of architecture in the University of Illinois, who has reduced them in such a way as to make it possible to institute comparisons of wool with other materials used in the arts, and to determine the ultimate value of each sample of wool or indeed each fiber represented. The results of his calculations and comparisons are embodied in the following pages.

There seems to be no doubt that the methods here followed furnish means for the absolute determination of the industrial value of the staple. We therefore take great pleasure in submitting the result of Professor Ricker's work.

A.—MEASUREMENTS AND TESTS OF FIBERS.

(1) AVERAGE DIAMETER OF FIBERS.

The average diameter of fiber was determined for each sample of wool by measuring a large number of the fibers by means of a microscope, and then taking the mean of all their diameters as the average for that sample. These measurements were made and recorded in centimillimeters or hundredths of a millimeter.

(2) TENSILE STRENGTH AND STRETCH OF FIBERS.

Usually 15, rarely 35, fibers were selected from each sample of wool, and a length of each fiber equal to 2 centimeters was subjected to a gradually increased tensile strain until a stretch or increase of length of 1 millimeter was produced. The strain then being removed, the permanent elongation of the fiber was measured. A strain was then applied sufficient to cause a stretch of 2 millimeters, and the corresponding permanent stretch was measured. The process was generally, though not always, repeated for each consecutive millimeter of elongation until the fiber was ruptured. Each strain was recorded in grams, with the corresponding total and permanent stretch in millimeters.

The following will serve as an illustration of the method:

[No. 189. Cotswold. Average diameter of fiber = 4.412 centimillimeters.]

No. 1 fiber.			No. 2 fiber.			No. 3 fiber.			No. 4 fiber.			No. 5 fiber.		
Strain.	Temporary stretch.	Permanent stretch.	Strain.	Temporary stretch.	Permanent stretch.	Strain.	Temporary stretch.	Permanent stretch.	Strain.	Temporary stretch.	Permanent stretch.	Strain.	Temporary stretch.	Permanent stretch.
17.50	1.00	0.25	14.50	1.00	0.25	18.75	1.00	0.25	17.50	1.00	0.25	16.50	1.00	0.25
20.00	2.00	0.75	17.50	2.00	0.75	20.75	2.00	0.75	20.00	2.00	0.75	18.75	2.00	1.00
21.25	3.00	1.00	18.25	3.00	1.25	22.00	3.00	1.25	20.50	3.00	1.00	20.75	3.00	1.25
22.50	4.00	1.75	18.75	4.00	1.75	23.50	4.00	1.75	21.50	4.00	1.75	22.50	4.00	1.75
23.75	5.00	2.25	19.75	5.00	2.25	24.75	5.00	2.25	22.50	5.00	2.25	23.50	5.00	2.25
26.00	6.00	3.00	21.50	6.00	3.00	27.50	6.00	3.00	25.00	6.00	3.00	25.75	6.00	3.00
30.50	7.00	3.75	22.75	6.50	.....	31.75	7.00	4.00	29.25	7.00	3.75	29.75	7.00	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	31.50	7.50	.....	.....	.....	.....

No. 6 fiber.			No. 7 fiber.			No. 8 fiber.			No. 9 fiber.			No. 10 fiber.		
Strain.	Temporary stretch.	Permanent stretch.	Strain.	Temporary stretch.	Permanent stretch.	Strain.	Temporary stretch.	Permanent stretch.	Strain.	Temporary stretch.	Permanent stretch.	Strain.	Temporary stretch.	Permanent stretch.
11.75	1.00	0.25	20.50	1.00	0.25	15.25	1.00	0.25	20.75	1.00	0.25	10.25	1.00	0.25
14.50	2.00	0.75	21.75	2.00	0.75	16.50	2.00	0.75	22.50	2.00	0.75	12.50	2.00	0.75
15.00	3.00	1.00	22.50	3.00	1.00	17.25	3.00	1.00	24.50	3.00	1.25	13.50	3.00	1.25
16.50	4.00	1.75	23.50	4.00	1.75	18.00	4.00	1.75	26.00	4.00	2.00	14.50	4.00	1.75
17.75	5.00	2.25	25.25	5.00	2.25	19.50	5.00	2.25	27.50	5.00	2.50	14.50	5.00	2.50
25.50	6.00	3.00	28.25	6.00	3.00	22.75	5.75	.....	30.25	6.00	3.00	15.75	6.00	3.25
21.75	6.25	.....	33.50	7.00	3.75	.....	.....	.....	35.50	7.00	4.00	.....	.....	.....
.....	.....	.....	37.00	7.75	.....	.....	.....	.....	37.25	7.75	.....	.....	.....	.....

[No. 189. Cotswold. Average diameter of fiber=4.412 centimillimeters—Continued.]

No. 11 fiber.			No. 12 fiber.			No. 13 fiber.			No. 14 fiber.			No. 15 fiber.		
Strain.	Temporary stretch.	Permanent stretch.	Strain.	Temporary stretch.	Permanent stretch.	Strain.	Temporary stretch.	Permanent stretch.	Strain.	Temporary stretch.	Permanent stretch.	Strain.	Temporary stretch.	Permanent stretch.
22.00	1.00	0.25	21.75	1.00	0.25	19.50	1.00	0.25	13.75	1.00	0.25	21.00	1.00	0.25
26.00	1.00	0.75	24.50	2.00	0.75	22.50	2.00	0.75	17.25	2.00	0.75	24.50	2.00	0.75
27.50	3.00	1.25	25.75	3.00	1.25	24.50	3.00	1.25	19.25	3.00	1.25	26.25	3.00	1.00
28.75	4.00	1.75	27.25	4.00	1.75	25.25	4.00	1.75	20.50	4.00	2.00	27.50	4.00	1.75
30.00	5.00	2.25	29.25	5.00	2.50	26.75	5.00	2.50	21.50	4.50	.....	28.75	5.00	2.50
34.50	6.00	3.25	33.25	6.00	3.25	29.75	6.00	3.25	.....	.....	.....	33.00	6.00	3.25
38.50	6.75	.....	36.75	6.75	.....	32.75	6.50	.....	.....	.....	.....	36.75	6.75	.....

B.—MODE OF AVERAGING RESULTS FOR EACH SAMPLE.

From the records of the tests made on fibers taken from the samples were selected the results for the ten fibers which exhibited the greatest elongation before breaking. Several fibers usually broke with a small amount of elongation, suggesting a probability that they might have been injured when being fastened in the testing machine or were originally defective. Since the data obtained from them would only affect a portion of the averages for the sample, it is evident that more accurate results would be obtained by their omission; for while this might indicate a tensile strength and elasticity slightly higher than the true one, this error would not materially affect the relative values of the averages for different samples and different breeds, or the comparison of these averages.

(1) PLOTTING DIAGRAM OF STRAINS, TOTAL AND PERMANENT STRETCH.

The tensile strains and permanent elongations corresponding to total elongations in even millimeters were usually observed, though these were not always consecutive. Therefore, to obtain intermediate values, as well as the strains corresponding to permanent elongations, in even and half millimeters, it becomes necessary to plot curves or broken lines, representing the results of the tests, from which the required values could be obtained.

Paper ruled in even rectangles was employed for this purpose, the side of the sheet being a scale of tensile strains in grams and the bottom a scale of elongations in millimeters.

Two lines were drawn for each fiber, one representing the total, the other the permanent elongations and the corresponding strains.

Points were located in each line at the intersections of horizontals through the given strains, and verticals through the given elongations, as obtained from the records of tests. These points were then connected by short straight lines, which produced broken or approximately-curved lines. When two lines had been plotted for each of the ten selected fibers of the sample, the appearance of the diagram was similar to that shown in Plate I, which represents the lines for sample No. 189, Cotswold, fibers 1, 3, 4, 5, 7, 9, 11, 12, 13, and 15.

(2) COMPUTING THE AVERAGES FOR A SAMPLE.

On the vertical through 1 millimeter stretch, the points of intersection with the ten lines of total stretch were noted, and the corresponding strains read off and set down in a column of a table. The same was done for the verticals through 2 millimeters, &c., finally producing a table of strains and total elongations similar to that given below in Table I.

In the same way a table of strains and elongations was obtained for the permanent stretch, excepting that the verticals were taken at intervals of a half millimeter, to insure greater accuracy. Table II is a specimen of this form of table.

If the strains found in any vertical column of a table be added, and their sum be divided by their number, the quotient will be the required average strain producing the amount of elongation corresponding to that column of the table. By treating all the columns in the same way, we may obtain the required average strains and the corresponding total and permanent elongations for the sample of wool considered.

These averages may be plotted on the diagrams already drawn, as shown on Plate I, where they are represented by heavier lines.

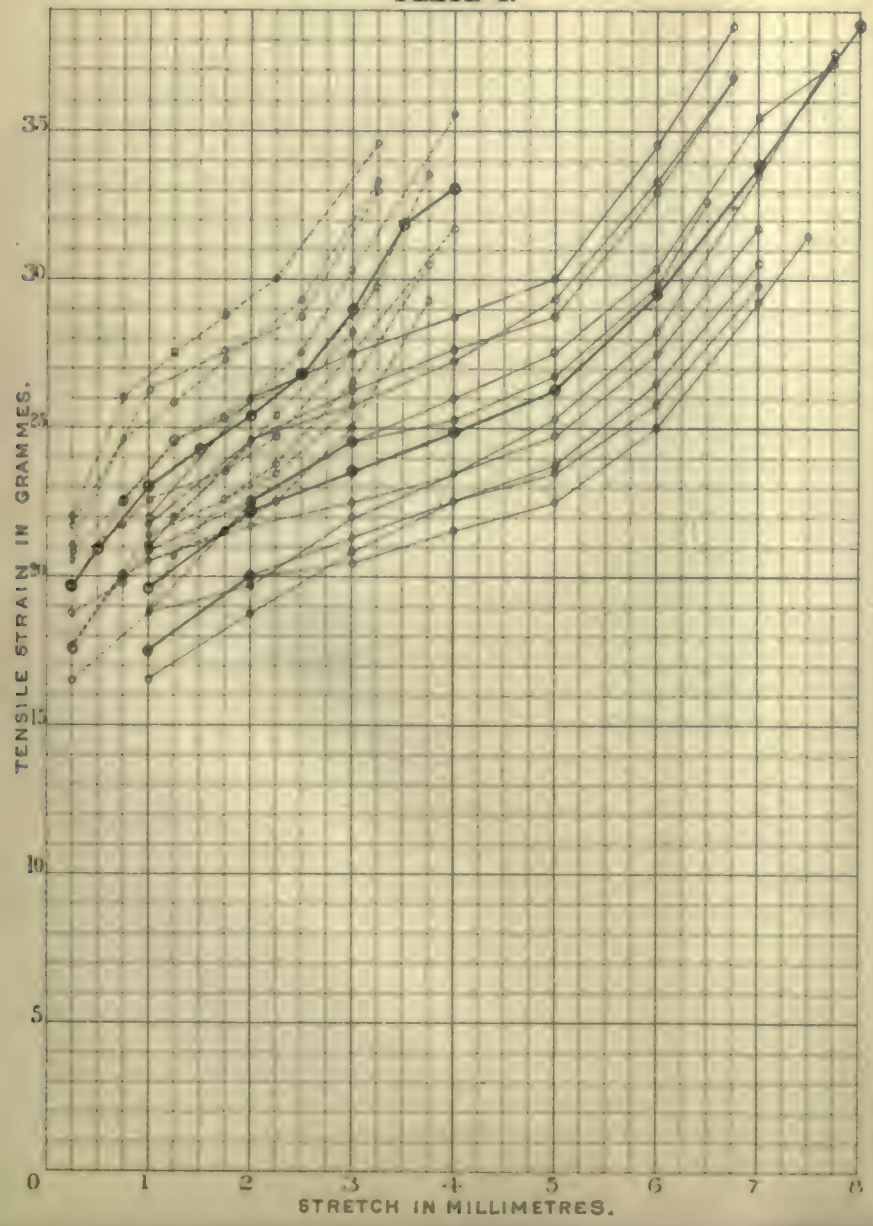
Light-dotted lines represent permanent elongations and strains; light full lines, total elongations and strains.

To insure the maximum possible accuracy of the final averages, this process of averaging results was applied to ten samples of wool, taken from five different breeds, thus comprising the results of the tests made on fifty different samples and 500 separate fibers.

The breeds represented are Oxforddown, Southdown, Lincoln, Merino, and Cotswold. Each sample was taken from a different fleece, with the single exception of 164 Lincoln, from different portions of which five samples were taken, to make up the desired number of ten specimens from each breed. The results of the tests made on these five samples differ fully as much as do those made on samples from different fleeces.

AVERAGES FOR A SAMPLE COMPRISING 10 FIBRES 189 COTSWOLD.

PLATE 1.



AVERAGES FOR A BREED. 10 SAMPLES. OXFORD DOWN.

PLATE 9.

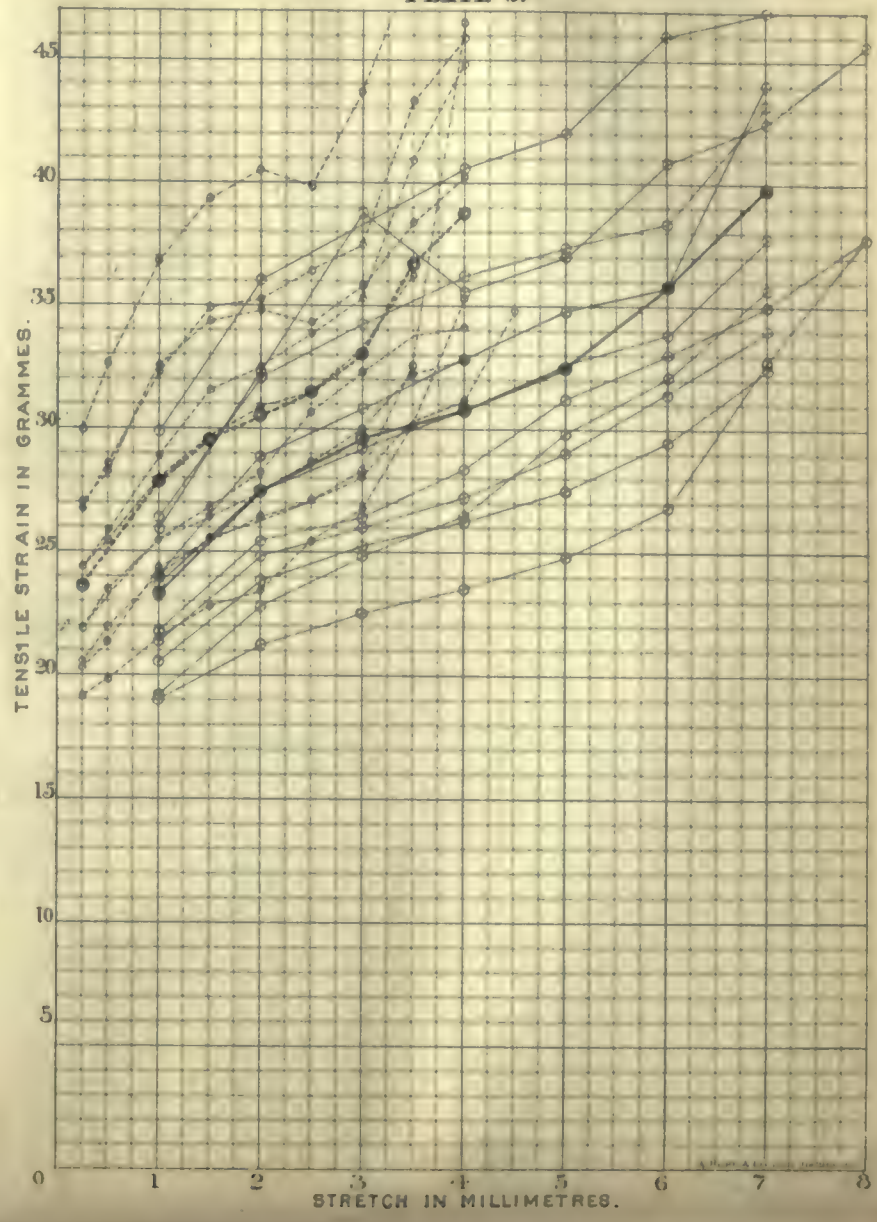


TABLE 1.—*Strains and permanent stretch.*

[No. 189, Cotswold.]

Stretch in millimeters.....	.25	.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00
Tensile strains in grams....	22.00	24.00	26.75	28.15	29.35	31.10	33.35	35.50	35.50	.....	.....
	21.75	23.10	26.25	27.10	27.90	29.25	32.00	34.75	35.00	.....	.....
	21.00	22.75	25.15	26.50	27.90	28.75	31.50	34.50	34.75	.....	.....
	20.75	21.60	24.50	25.60	26.60	27.50	30.25	33.00	31.75	.....	.....
	20.50	21.10	23.50	24.90	26.00	26.75	28.75	31.75	30.75	.....	.....
	19.50	21.00	22.50	23.15	24.35	26.25	28.25	30.50	.....	.....	.....
	18.75	19.75	21.40	22.75	24.10	25.70	27.50	29.65	.....	.....	.....
	17.50	18.75	21.25	22.10	24.10	24.70	26.50	29.15	.....	.....	.....
	16.50	18.75	20.50	21.60	24.00	24.25	25.75	27.85	.....	.....	.....
	17.50	17.25	18.75	21.20	22.60	24.00	25.00	.....	.....	.....	.....
Average tensile strains..	19.58	20.81	22.90	24.25	25.36	26.76	28.89	31.84	33.05	.....	.....

TABLE 2.—*Strains and total stretch.*

[No. 189, Cotswold.]

Stretch in millimeters	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00
Tensile strains in grams....	22.60	26.60	27.50	28.75	30.00	34.50	38.50	39.00	.....
	21.75	24.50	26.25	27.50	29.25	33.25	38.00	37.75	.....
	21.00	24.50	25.75	27.25	28.75	33.00	38.00	.....	.....
	20.75	22.50	24.50	26.00	27.50	30.25	35.50	.....	.....
	20.50	22.50	24.50	25.25	26.75	29.75	33.50	.....	.....
	19.50	21.75	22.50	24.50	25.25	28.25	31.75	.....	.....
	18.75	20.75	22.00	23.50	24.75	27.50	30.50	.....	.....
	17.50	20.00	21.25	22.50	23.75	25.50	29.75	.....	.....
	17.00	20.00	20.75	22.50	23.50	25.75	29.25	.....	.....
	16.50	18.75	20.50	21.50	22.50	25.00	.....	.....	.....
Average tensile strains..	19.58	22.13	23.55	24.83	26.20	29.38	33.66	38.28	.....

C.—MODE OF AVERAGING RESULTS FOR EACH BREED.

As previously stated, the average diameter of fiber was determined for each sample by measuring a large number of fibers and taking their mean as the required diameter.

But, to compare the average results for different samples in order to obtain the general averages for a breed, it is evident that the fibers must be theoretically reduced to the same common diameter. For the sake of convenience this common diameter was assumed to be 4 centimillimeters, which is rather larger than the average for all breeds, but is less than the diameters of some fibers. Since the value assumed for this diameter does not affect the relative values of the results for different samples, any other value might have been taken without affecting the final results.

(1) FORMULA FOR REDUCTION OF FIBERS TO UNIFORM DIAMETER.

Let 4 centimillimeters = assumed common diameter of fiber.

Let d = actual average diameter of fiber for the given sample.

Let S = actual tensile strain on fiber in grams, producing a certain elongation, total or permanent.

Let S^1 = required tensile strain in grams, on a similar fiber 4 centimillimeters in diameter, producing an identical elongation.

The strains will evidently be to each other as the squares of the diameters of the corresponding fibers, supposing sections of similar form. Hence

$$d^2 : 4^2 :: S : S^1, \text{ and } S^1 = S\frac{16}{d^2} = \text{the required strain.}$$

The average diameter of fiber for the sample considered is then to be substituted in the formula in place of d, and the decimal value of the ratio $16 \div d^2$ found, which will be a constant for each sample. By multiplying the average tensile strains obtained for that sample in the manner already described, we obtain the values of the tensile strains required to produce equal elongations of a perfectly similar fiber 4 centimillimeters in diameter.

(2) AVERAGING THE REDUCED VALUES FOR EACH BREED.

Since the reduced strains correspond to equal elongations of fibers of the same theoretical diameter, they may be tabulated and averaged for each breed in the same way as the averages for each sample were found. This is done in Tables III, IV, V, VI, and VII.

The sum of the strains found in the same vertical column and corresponding to equal elongations, being divided by their number, gives the average strain required for that breed to produce that amount of stretch of the fiber.

TABLE 3.—*Averages for Oxforddown.*

[10 samples; 100 fibers.]

	PERMANENT STRETCH IN MILLIMETERS.										Number of sample.
	0.25	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	
Tensile strains in grams on fibers 4 centimillimeters in diameter.	24.12	25.27	26.89	27.70	28.47	29.41	30.54	32.47	35.71	36.38	41.64	151
	22.79	23.77	24.64	26.00	26.97	27.93	29.14	30.51	31.70	39.92	37.77	150
	22.52	23.04	24.04	24.77	25.35	26.07	27.14	29.37	32.19	34.23	.....	159
	20.64	21.50	22.89	23.79	24.39	25.06	26.17	28.01	31.17	.....	.....	160
	19.81	20.56	22.19	23.17	23.89	24.72	26.14	28.00	29.58	36.04	37.85	161
	17.18	17.71	18.73	19.58	20.19	20.90	21.70	23.29	25.76	28.92	32.07	158
	22.60	23.15	24.40	25.29	25.92	26.58	27.44	29.24	31.45	.....	.....	157
	24.59	25.35	28.28	28.96	29.70	30.65	32.18	34.59	37.79	.....	.....	154
	21.03	21.98	23.78	24.48	25.11	26.05	27.55	28.98	30.34	32.78	43.70	153
	23.02	23.91	25.00	25.79	26.44	27.40	28.80	31.68	33.63	36.81	41.22	152
Average tensile strains for the breed.....	22.03	22.62	24.08	24.94	25.64	26.48	27.68	29.61	31.93	34.01	39.04	

	TOTAL STRETCH IN MILLIMETERS.									Number of sample.
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	
Tensile strains in grams on fibers 4 centimillimeters in diameter.	23.90	26.18	27.30	28.28	29.58	31.40	35.29	39.44	.....	151
	21.13	24.23	25.86	27.18	28.44	30.71	33.88	37.50	39.81	150
	22.44	23.74	24.48	25.32	26.60	29.13	32.88	36.64	.....	159
	20.89	22.72	23.54	24.39	25.48	27.85	31.38	31.88	.....	160
	19.81	22.02	22.88	23.81	24.90	27.26	30.61	34.10	37.70	161
	17.06	18.50	19.33	20.19	21.44	23.19	27.16	30.00	30.88	158
	22.58	24.23	25.06	25.85	26.80	29.02	32.30	39.00	.....	157
	23.54	28.11	28.81	29.57	30.78	33.02	36.80	40.05	.....	154
	20.93	23.59	24.22	25.08	26.32	28.58	31.77	33.42	.....	153
	22.72	24.59	25.18	25.87	27.14	29.40	35.56	37.70	.....	152
Average tensile strains for the breed.....	21.50	23.79	24.67	25.55	26.75	28.96	32.76	35.97	38.13	

TABLE 4.—*Averages for Lincoln.*

	PERMANENT STRETCH IN MILLIMETERS.										Number of sample.
	0.25	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	
Tensile strains in grams.....	17.08	17.70	19.00	20.42	21.16	22.16	23.07	24.52	27.16	29.16	.....	165
	14.58	14.91	15.58	16.12	16.79	18.04	19.63	22.27	24.47	.....	.....	168
	14.83	15.25	16.08	16.57	17.25	18.51	20.66	22.66	25.20	.....	.....	167
	16.90	17.48	18.17	18.78	19.56	20.96	23.16	24.72	27.06	.....	.....	166
	13.64	14.13	15.02	15.53	12.68	16.98	18.37	20.14	23.96	27.56	29.20	164
	11.43	11.86	12.56	12.95	13.50	14.53	16.07	17.11	19.80	.....	.....	169
	21.07	21.72	22.94	23.95	24.56	25.27	26.24	28.09	31.71	36.60	38.68	*134
	17.91	18.48	19.75	20.65	21.57	22.65	23.39	27.21	.....	.....	.....	†164
	18.31	18.92	20.09	21.12	21.88	22.11	22.80	.....	.....	.....	.....	‡164
	19.35	19.84	20.87	21.66	22.22	22.87	23.77	25.47	28.51	28.76	.....	§164
Average tensile strains for the breed.....	16.51	17.03	18.01	18.78	19.12	20.41	21.72	23.58	25.98	30.52	33.94	

	TOTAL STRETCH IN MILLIMETERS.									Number of sample.
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	
Tensile strains in grams.....	16.88	18.90	20.03	21.90	22.16	24.27	27.48	28.57	.....	165
	14.53	15.16	15.69	16.26	17.16	19.25	21.03	26.50	.....	168
	14.81	15.59	16.17	16.80	17.81	20.42	24.98	26.55	.....	167
	16.75	17.77	18.32	19.11	20.46	23.68	27.20	29.57	.....	166
	13.64	14.74	15.30	15.84	16.85	18.75	22.02	28.55	.....	164
	11.55	12.25	12.69	13.15	14.21	16.23	19.20	21.19	.....	169
	21.07	22.80	23.70	24.56	25.76	27.83	31.44	35.85	41.50	*164
	17.75	19.24	20.33	21.43	22.71	24.45	.....	.....	.....	†164
	18.20	19.86	20.96	21.90	22.87	24.56	.....	.....	.....	‡164
	19.30	20.65	21.47	22.27	23.52	25.24	28.73	33.23	.....	§164
Average tensile strains for the breed.....	16.45	17.70	18.47	19.23	20.35	22.47	25.26	28.75	.....	

*Shoulder. †Body ‡Hip. §Side.

TABLE 5.—*Averages for Southdown.*

	PERMANENT STRETCH IN MILLIMETERS.										Number of sample.
	0.25	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	
Tensile strains in grams	20.58	21.91	24.08	25.48	26.25	27.06	28.04	30.35	31.09	34.82	137
	21.92	23.21	25.47	26.77	28.19	30.62	32.30	33.81	34.03	.....	138
	26.58	28.60	32.25	34.92	35.16	36.43	37.47	43.18	45.80	.....	139
	27.03	28.28	32.58	34.45	34.72	34.15	35.82	38.16	40.16	.....	140
	29.84	32.44	36.78	39.25	40.40	39.89	43.58	49.04	.....	.....	141
	20.17	21.38	24.23	25.39	26.41	27.07	28.34	32.68	46.34	.....	142
	24.18	25.77	28.84	31.51	32.37	33.90	35.16	40.93	44.74	.....	143
	19.12	19.85	21.45	22.74	23.47	25.40	26.75	29.98	35.23	.....	145
	21.94	23.40	25.59	26.43	27.40	28.64	30.42	32.21	32.68	.....	146
	24.14	25.54	28.07	29.79	30.82	31.54	33.24	36.10	.....	.....	147
Average tensile strains for the breed	23.55	25.04	27.80	29.65	30.52	31.48	33.06	36.63	38.76	.....	

	TOTAL STRETCH IN MILLIMETERS.									Number of sample.
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	
Tensile strains in grams	20.58	23.92	25.19	26.25	27.62	29.53	32.38	.....	.....	137
	21.58	25.28	26.89	28.29	31.18	32.94	34.97	37.83	.....	138
	25.96	32.23	38.81	35.27	36.95	40.77	42.47	46.46	.....	139
	26.27	32.01	34.15	36.14	37.24	38.24	43.10	.....	.....	140
	29.84	35.09	38.19	40.45	41.66	46.02	47.18	.....	.....	141
	19.16	22.84	24.76	26.43	29.72	32.07	40.57	.....	.....	142
	24.00	28.77	30.88	32.75	34.82	35.67	43.98	.....	.....	143
	18.98	21.34	22.51	23.49	24.75	26.67	32.74	37.86	.....	145
	21.25	24.80	25.96	27.30	28.97	31.40	34.10	.....	.....	146
	23.81	27.46	29.26	30.80	32.83	33.91	42.87	.....	.....	147
Average tensile strains for the breed	23.14	27.46	29.60	30.72	32.61	35.72	39.74	.....	.....	

TABLE 6.—*Averages for Merino.*

	PERMANENT STRETCH IN MILLIMETERS.										Number of sample.
	0.25	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	
Tensile strains in grams	17.15	18.20	19.97	22.26	23.70	23.55	25.23	.....	.....	.....	104
	21.15	22.40	24.68	25.96	27.91	29.66	31.47	33.16	39.11	.....	102
	17.47	18.34	20.22	21.76	22.59	23.30	24.42	29.53	31.14	32.12	93
	15.12	16.12	17.68	19.11	20.18	20.97	22.84	25.17	26.74	30.31	97
	16.91	17.65	18.83	19.94	20.97	22.30	22.60	24.39	.....	.....	88
	16.15	17.07	19.09	21.53	22.98	29.81	32.18	47.42	.....	.....	90
	19.20	19.53	21.42	22.75	23.96	25.05	26.91	24.04	28.76	.....	89
	16.84	17.99	20.03	20.22	21.22	23.75	25.32	32.61	46.41	.....	88
	15.76	16.90	18.99	20.01	20.89	22.32	24.37	26.72	36.83	.....	87
	28.63	30.34	33.56	36.63	38.64	36.40	38.00	41.75	.....	.....	84
Average tensile strains for the breed	18.44	19.45	21.45	23.02	24.39	25.71	27.84	31.65	34.83	.....	

	TOTAL STRETCH IN MILLIMETERS.									Number of sample.
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	
Tensile strains in grams	15.67	19.26	21.02	23.55	26.76	.....	.....	.....	.....	104
	20.21	24.39	25.53	28.04	29.91	32.35	38.36	.....	.....	102
	17.08	19.73	21.43	22.50	23.97	28.92	29.98	35.82	.....	99
	14.48	17.11	18.40	20.18	21.47	24.10	27.81	29.45	.....	97
	15.88	18.09	19.20	20.90	22.52	23.56	25.84	.....	.....	96
	15.33	18.49	20.95	22.82	25.51	33.60	.....	.....	.....	90
	18.36	20.77	22.11	23.92	26.34	26.46	28.76	31.78	.....	89
	14.86	18.30	21.62	23.79	24.40	24.10	.....	.....	.....	88
	14.95	17.77	19.53	20.89	22.30	25.39	36.65	.....	.....	87
	27.80	32.54	35.76	38.61	38.76	42.67	.....	.....	.....	86
Average tensile strains for the breed	17.46	20.67	22.50	24.53	26.20	29.02	31.23	32.35	.....	

TABLE 7.—*Averages for Cotswold.*

	PERMANENT STRETCH IN MILLIMETERS.										Number of sample.
	0.25	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	
Tensile strains in grams....	15.67	16.40	17.51	18.25	18.84	19.78	21.44	23.72	24.25	.....	.....	174
	14.54	15.00	15.90	16.43	17.14	18.06	19.05	21.48	22.58	.....	.....	176
	16.15	16.57	17.44	18.13	18.72	20.06	20.38	20.52	.....	.....	.....	183
	14.57	15.20	16.11	16.92	17.43	18.06	18.93	20.34	.....	.....	.....	184
	14.16	14.56	14.76	15.12	15.51	16.23	16.13	16.38	17.65	19.31	20.88	185
	16.78	17.17	17.87	18.47	19.20	20.15	21.79	24.12	26.56	30.24	.....	186
	12.19	12.47	13.23	13.65	14.20	15.14	16.18	17.05	17.28	17.80	.....	187
	14.95	15.28	15.88	16.31	16.90	17.87	18.08	21.58	24.40	.....	.....	188
	16.09	17.11	18.88	19.93	20.84	21.99	23.75	26.17	27.16	.....	.....	189
	19.11	20.01	21.72	22.84	23.67	24.76	25.91	26.80	27.05	.....	.....	190
Average tensile strains for the breed.....	15.44	15.96	16.93	17.61	18.25	19.21	20.16	21.82	23.37	.....	.....	

	TOTAL STRETCH IN MILLIMETERS.									Number of sample.
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	
Tensile strains in grams....	15.67	16.97	17.79	18.73	19.77	22.13	25.60	.....	.....	174
	14.25	15.37	16.04	17.68	19.50	22.00	24.32	.....	.....	176
	16.21	17.37	18.04	18.72	19.59	21.62	.....	.....	.....	183
	14.44	15.91	16.64	17.43	18.38	20.13	21.68	22.04	.....	184
	14.11	14.52	14.86	15.27	15.58	16.23	18.56	19.41	22.98	185
	16.76	17.52	18.06	18.62	19.65	21.79	25.09	28.30	.....	186
	12.05	12.77	13.37	13.93	14.89	16.32	18.54	.....	.....	187
	14.27	15.53	15.98	16.63	17.69	19.66	21.39	29.87	.....	188
	16.09	18.19	19.36	20.41	21.54	24.15	27.83	31.54	.....	189
	18.89	20.89	22.42	23.60	25.52	27.02	30.25	.....	.....	190
Average tensile strains for the breed.....	15.27	16.50	17.26	18.00	19.03	20.86	23.44	25.92	.....	

Graphical diagrams are not necessary for obtaining these averages, but, as an illustration, one has been drawn for the purpose of exhibiting the relation of the averages for each sample and the general averages for the Southdown breed. (See Plate II.)

Dotted lines represent permanent stretch and strains for the averages for the ten samples. Full lines likewise represent total stretch, and the corresponding strains for the same. Heavy lines indicate the general averages for the breed for total and permanent elongations and the corresponding tensile strains.

D.—VARIATION IN STRENGTH OF FIBERS TAKEN FROM DIFFERENT PARTS OF THE SAME FLEECE.

Four specimens were selected from No. 164—a Lincoln fleece—from the hip, shoulder, belly, and side. The results of tests made on ten fibers for each sample are here used. The averages were found for each sample, as already described, then reduced to a common diameter of fiber of 4 centimillimeters, and the results are given in Table VIII, in which the general average of the four samples is also to be found.

TABLE 8.—*Variation in parts of same fleece.*

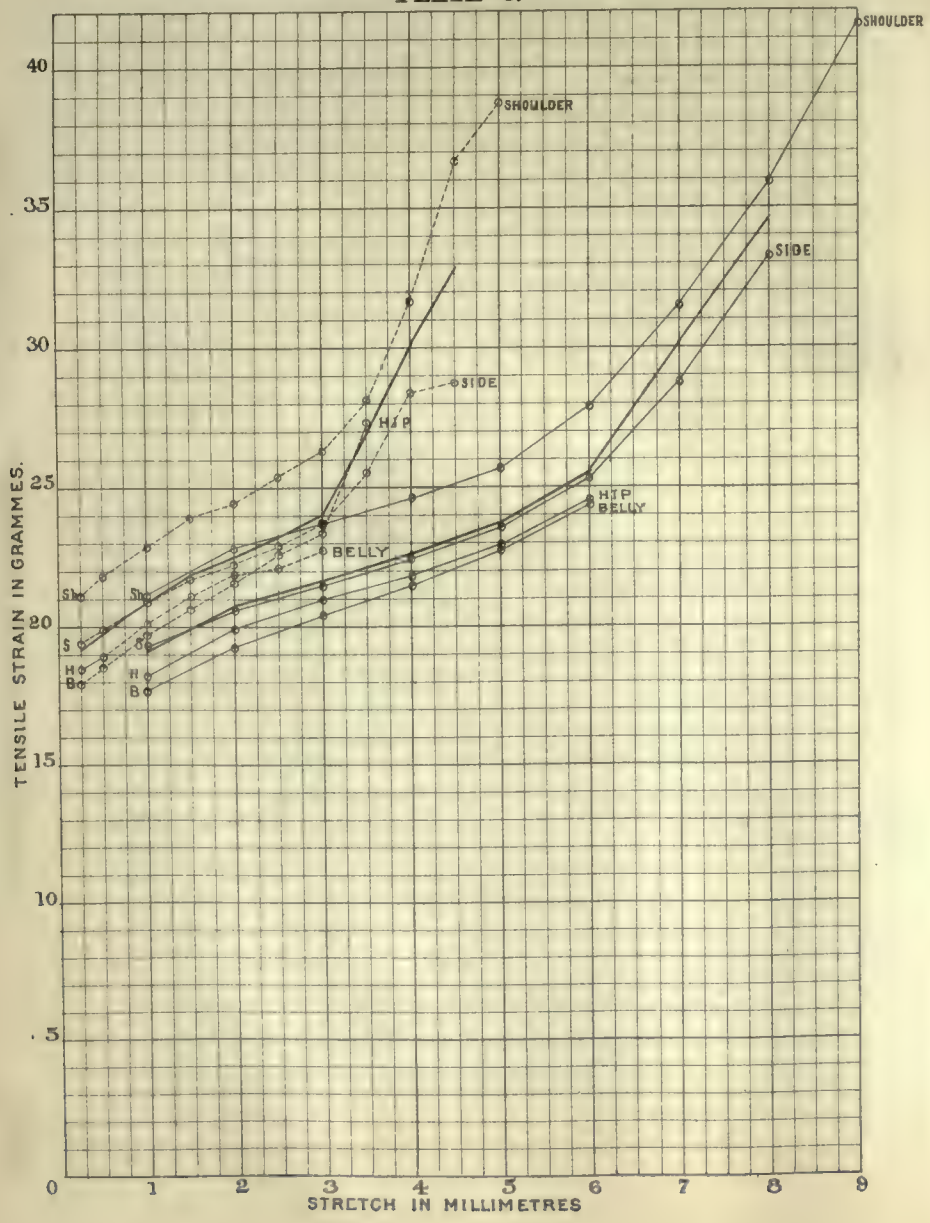
164. Lincoln.

	PERMANENT STRETCH IN MILLIMETERS.										Sample.
	0.25	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	
Tensile strains in grams...	21.07	21.72	22.94	23.95	24.56	25.27	26.24	28.09	31.71	36.60	38.00	Shoulder.
	17.91	18.48	19.75	20.65	21.57	22.65	23.39	27.21	.....	.....	.....	Belly.
	18.31	18.92	20.09	21.12	21.88	22.11	22.80	.....	.....	.....	.....	Hip.
	19.35	19.84	20.87	21.66	22.22	22.87	23.77	25.47	28.51	28.76	.....	Side.
Average tensile strains for the four samples..	19.16	19.74	20.91	21.85	22.56	23.23	24.05	26.92	30.11	32.68	38.00	

	TOTAL STRETCH IN MILLIMETERS.									Sample.
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	
Tensile strains in grams...	21.07	22.80	23.70	24.56	25.76	27.83	31.44	35.85	41.50	Shoulder.
	17.75	19.24	20.33	21.43	22.71	24.55	.....	.....	.....	Belly.
	18.20	19.86	20.96	21.90	22.87	24.56	.....	.....	.....	Hip.
	19.30	20.65	21.47	22.27	23.52	25.24	28.73	33.23	.....	Side.
Average tensile strains for the four samples..	19.08	20.64	21.62	22.54	23.72	25.52	30.09	34.54	41.50	

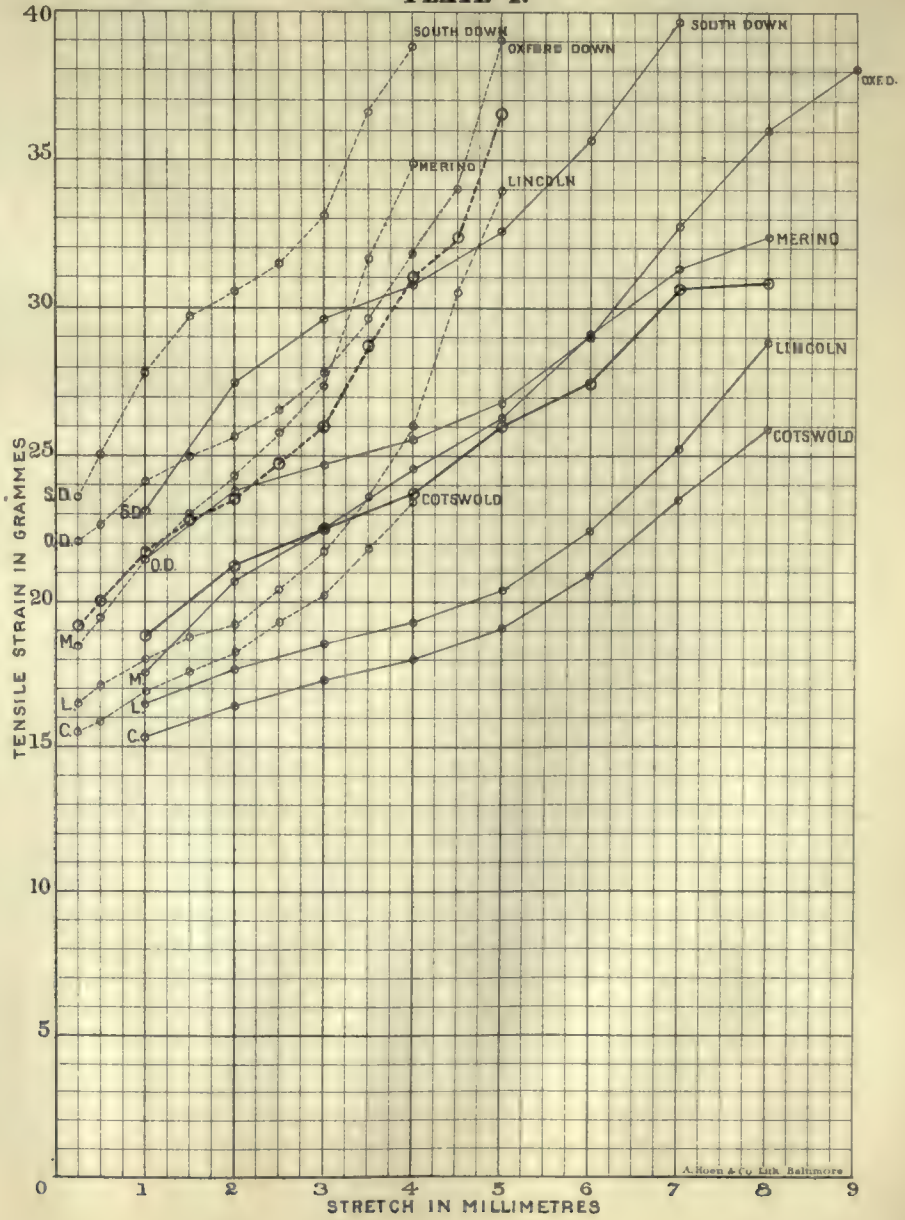
DIFFERENT PARTS OF SAME FLEECE. 164 LINCOLN.

PLATE 3.



GENERAL AVERAGES FOR THE FIVE BREEDS.

PLATE 4.



The same results are also shown in a different manner in the graphical diagram of Plate III, constructed in the same way as those on Plates I and II.

This diagram shows the following to be true for this fleece:

1. The fibers taken from the shoulder are considerably stronger than the average for the fleece reduced to a common diameter and weight.

2. The shoulder is therefore the most valuable part of the fleece by weight.

3. The relative economical values of the different parts are as follows, from greatest to least: Shoulder, side, hip, belly.

4. Fibers taken from the side closely approximate the average for the entire fleece.

5. The belly is much the least valuable part of the fleece.

Of course these deductions might be materially modified by applying the same method to a large number of fleeces belonging to different breeds.*

E.—MODE OF AVERAGING RESULTS FOR THE FIVE BREEDS.

The general averages for each breed can be compared in the way already described for the different fleeces of the same breed, so as to obtain a general average for the five breeds or for wool.

This comparison is made numerically in Table IX and graphically on Plate IV.

TABLE 9.—*General average for the five breeds.*

	PERMANENT STRETCH IN MILLIMETERS.											Breed.
	0.25.	0.50.	1.00.	1.50.	2.00.	2.50.	3.00.	3.50.	4.00.	4.50.	5.00.	
Tensile strains in grams	22.03	22.62	24.08	24.94	25.64	26.48	27.68	29.61	31.93	34.01	39.04	Oxforddown.
	16.51	17.03	18.01	18.78	19.12	20.41	21.72	23.58	25.98	30.32	33.94	Lincoln.
	23.79	25.04	27.89	29.65	30.52	31.44	33.06	36.63	38.76	.....	.....	Southdown.
	18.44	19.45	21.45	23.02	24.30	25.71	27.34	31.65	34.83	.....	.....	Merino.
	15.44	15.96	16.96	17.61	18.25	19.21	20.16	21.82	23.37	.....	.....	Cotswold.
Average tensile strains for the five breeds	19.19	20.02	21.07	22.80	23.57	24.66	25.99	28.06	30.98	32.27	36.49	

	TOTAL STRETCH IN MILLIMETERS.											Breed.
	0.25.	0.50.	1.00.	1.50.	2.00.	2.50.	3.00.	3.50.	4.00.	4.50.	5.00.	
Tensile strains in grams	21.50	23.79	24.67	25.75	26.75	28.96	32.76	35.97	38.13	.....	.....	Oxforddown.
	16.45	17.70	18.47	19.23	20.35	22.47	25.26	28.75	.....	.....	.....	Lincoln.
	23.14	27.46	29.60	30.72	32.61	35.72	39.74	.....	.....	.....	.....	Southdown.
	17.46	20.67	22.50	24.53	26.20	29.02	31.23	32.35	.....	.....	.....	Merino.
	15.27	16.30	17.26	18.00	19.03	20.86	23.44	25.92	.....	.....	.....	Cotswold.
Average tensile strains for the five breeds	18.76	21.22	22.50	23.61	24.99	27.41	30.69	30.75	38.13	.....	.....	

On Plate IV, dotted lines indicate permanent stretch and tensile strains for each breed; full lines, total stretch and corresponding tensile strains; heavy dotted lines, average permanent stretch and strain for the five breeds, or for wool; heavy full lines, average total stretch and tensile strains for the same.

This diagram and the figures upon which it is based appear to establish the following:

1. Southdown wool is much stronger than that of any other of the breeds considered.

2. It is consequently more valuable, pound for pound, for manufacturing purposes.

3. If the manufactured articles are made of the same weight, those composed of the Southdown wool ought, according to the above tables, to be much stronger and more durable for the same cost.

4. If all are to be of equal strength, the Southdown fabrics will be considerably lighter and cheaper than the others, allowing a greater profit, provided the wool is purchased at the same price per pound.

5. Cotswold wool requires more weight for equal strength.

6. The wool of the five breeds ranks in economical value as follows, from greatest to least: Southdown, Oxforddown, Merino, Lincoln, and Cotswold.

7. In point of strength, Merino wool closely approximates the average values for the five breeds considered. Its economical value would therefore be a mean between those of Southdown and Cotswold.

* Modifications due to age and sex of the animal represented would doubtless also occur. Further tests must therefore be made with a sufficient number of samples of the same kind to definitely determine the relations here shown.—McM.

7.—COMPARATIVE ECONOMICAL VALUES OF WOOLS OF THE DIFFERENT BREEDS.

Now, if it be accepted that the Southdown, as has apparently been shown, is the strongest and most valuable of the five kinds represented, and if we adopt it as the standard of comparison and place its value at 100, the relative value of any other kind of wool is to 100, or that of the Southdown, exactly as are the relative tensile strains required to produce equal elongations of the wools considered.

Let S=strain producing a certain amount of elongation in Southdown wool.

Let S¹=strain producing an equal elongation in any other kind.

Then S : S¹ :: 100 : required value of the wool, relative to that of Southdown, taken as a standard.

The corresponding strains and elongations were taken from Table IX, and by application of the preceding formula the results given in the following table were obtained:

TABLE 10.—*Relative values of different kinds of wool.*

	PERMANENT STRETCH IN MILLIMETERS.									TOTAL STRETCH IN MILLIMETERS.							Breed.
	0.25.	0.50.	1.00.	1.50.	2.00.	2.50.	3.00.	3.50.	4.00.	1.00.	2.00.	3.00.	4.00.	5.00.	6.00.	7.00.	
Relative values of the kinds of wool.	93.5	90.3	86.5	84.	84.	84.	83.6	81.	82.5	92.8	86.7	83.4	83.3	82.	81.	82.5	Oxforddown.
	70.	68.	64.6	63.3	62.6	65.	65.5	64.5	67.	71.	64.5	62.5	62.5	62.5	63.	63.5	Lincoln.
	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	100.	Southdown.
	78.3	77.6	82.5	77.5	79.7	81.6	82.7	86.5	[illegible]	75.3	82.	76.	80.	80.5	81.3	78.7	Merino.
	65.5	63.7	63.3	59.5	59.8	61.	61.	58.3	59.	66.	63.	58.3	58.7	58.5	58.3	59.	Cotswold.

This table shows that the relative values of the different kinds of wool are nearly the same for both permanent and total stretch.

To make these relative values more clearly evident to the eye, the same results are given graphically in Plate V for permanent elongation, and in Plate VI for total stretch. The relative values do not materially differ in the two plates, as may be seen from the similar forms and positions of the lines.

These diagrams exhibit the following facts:

1. The value of each of the four kinds of wool, relative to that of Southdown breed, diminishes slightly as the strain and stretch increase.

2. The values of Oxforddown and Merino are nearly identical, approximately four-fifths that of Southdown.

3. The values of Lincoln and Cotswold are also similar, approximately three-fifths that of Southdown, or three-fourths those of Merino and Oxforddown.

4. If the values for all elongations, both total and permanent, be averaged, the relative values of the five kinds of wool will be as follows:

Southdown, 100; Oxforddown, 85; Merino, 80.5; Lincoln, 65; Cotswold, 61.

5. These averages would be practically the relative economic values of the wool of the five different breeds considered, provided that the density and weight of fiber are assumed to be the same for all kinds for equal diameters, which is probably practically true.

6. Relative values of total, permanent, and elastic stretch.

(1) *Permanent stretch corresponding to any total stretch.*—These are produced by the same tensile strain. On Plate IV, suppose a horizontal line to be drawn through the intersection of the line representing the total stretch and strain for the kind of wool considered, with a vertical line through the assumed elongation. The intersection of this horizontal with the line representing permanent stretch and strain for the same kind of wool is noted, and the required value of the permanent stretch is easily read off.

The values given in the following table were found in this manner.

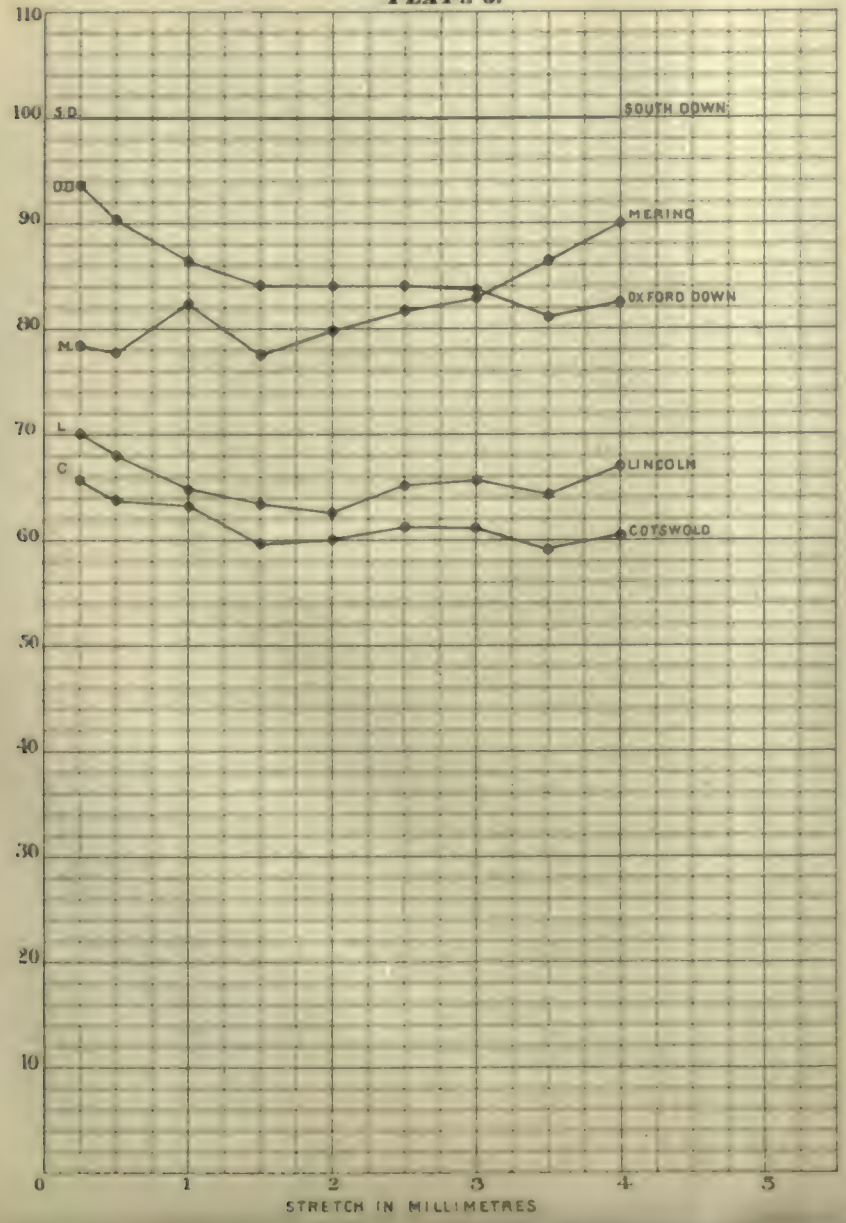
TABLE 11.—*Relative total and permanent stretch for equal total elongations.*

	TOTAL STRETCH OF FIBERS IN MILLIMETERS.									Breed.
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	
Permanent stretch of fibers in millimeters.	0.15	0.88	1.45	2.10	2.88	3.35	4.20	.....	.....	Southdown.
	0.00	0.90	1.36	1.90	2.63	3.35	4.20	4.70	4.90	Oxforddown.
	0.00	0.80	1.37	2.05	2.63	3.20	3.45	3.60	.....	Merino.
	0.20	0.85	1.33	2.05	2.50	3.20	3.83	4.30	.....	Lincoln.
	0.15	0.75	1.25	1.80	2.40	3.20	4.05	.....	.....	Cotswold.
Average permanent stretch in millimeters for the five breeds.....	0.10	0.83	1.35	1.98	2.61	3.06	3.95	4.20	4.90	

PLATE X.

RELATIVE RESISTANCE TO PERMANENT STRETCH OF DIFFERENT BREEDS.

PLATE 5.



RELATIVE RESISTANCE TO TOTAL STRETCH FOR DIFFERENT BREEDS.

PLATE 6.

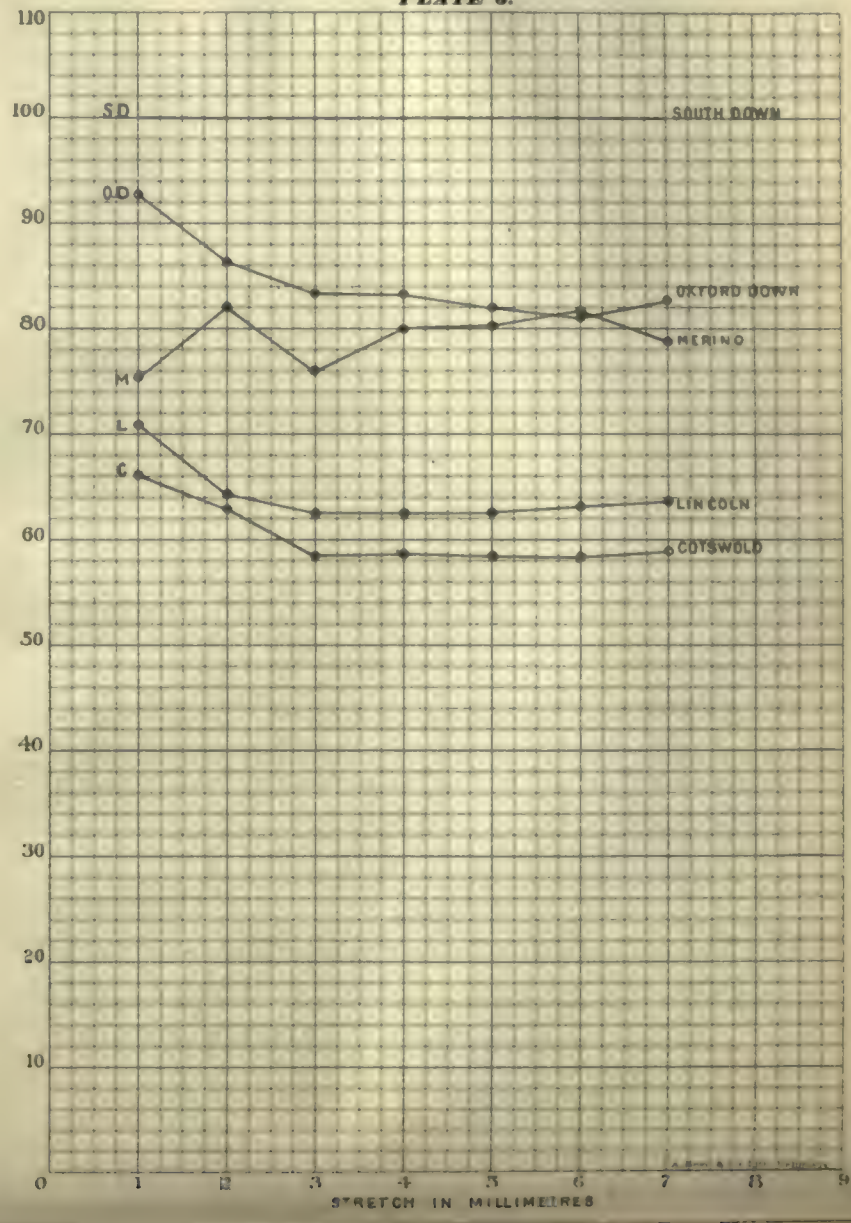
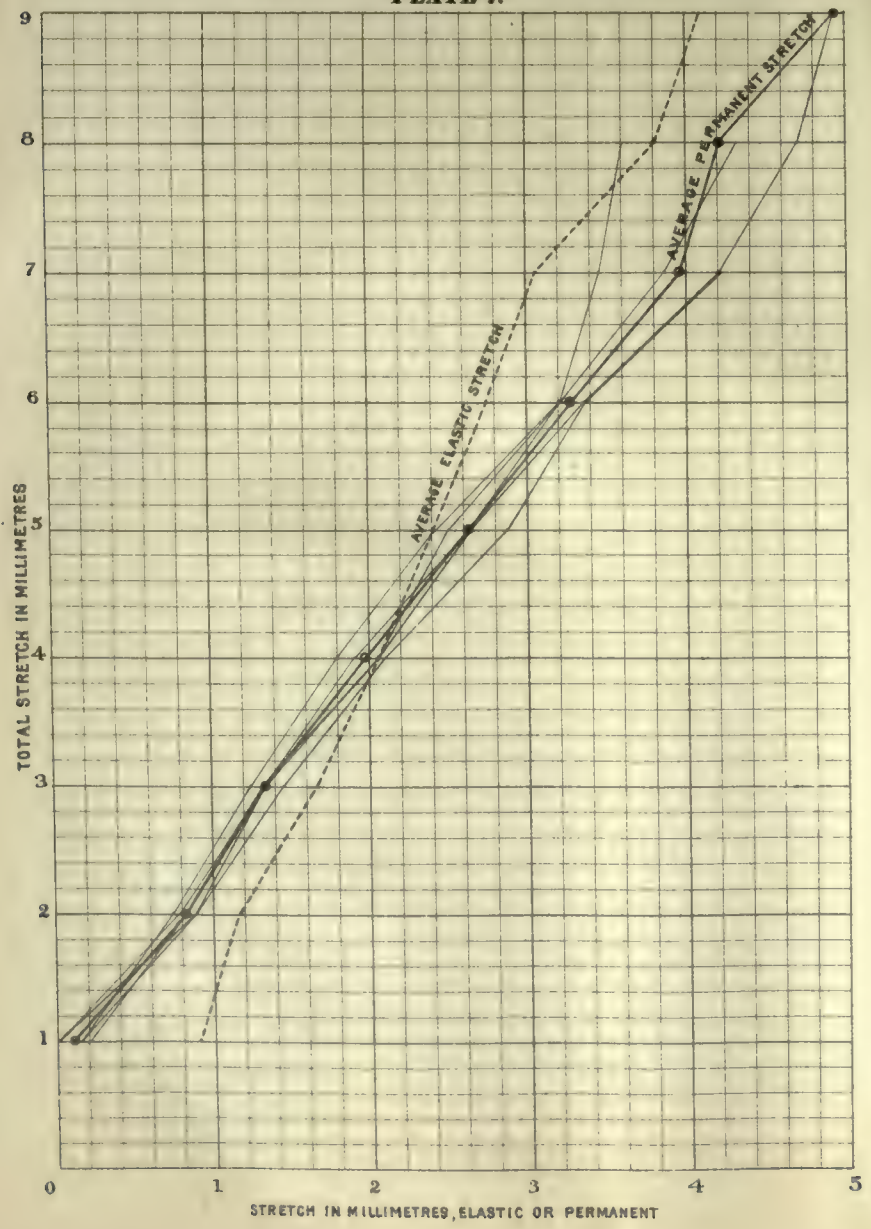


PLATE XI.

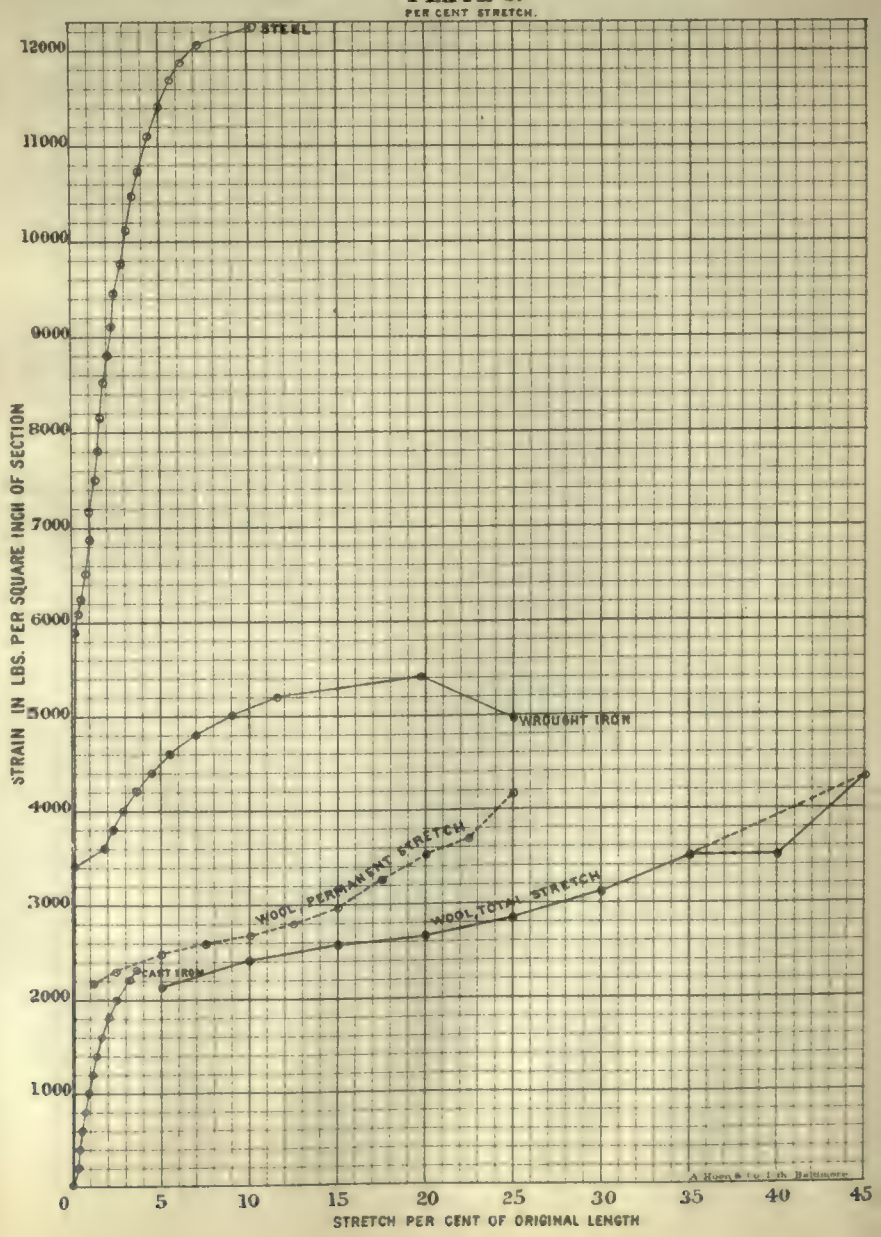
RELATIVE TOTAL, PERMANENT AND ELASTIC STRETCH.

PLATE 7.



COMPARATIVE TENACITY OF WOOL, IRON AND STEEL.

PLATE 8.



(2) *Elastic stretch corresponding to any total stretch.*—This evidently equals the difference of the total and permanent stretch just found. These differences form the following table:

TABLE 12.—*Relative total and elastic stretch for equal total elongations.*

	ELASTIC STRETCH OF FIBERS IN MILLIMETERS.									Breed.
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	
Elastic stretch of fibers in millimeters.	0.85	1.12	1.55	1.90	2.12	2.65	2.80	.....	.....	Southdown.
	1.00	1.10	1.65	2.10	2.37	2.65	2.80	3.30	4.10	Oxforddown.
	1.00	1.20	1.63	1.95	2.37	2.80	3.55	4.40	.....	Merino.
	0.80	1.17	1.67	1.95	2.50	2.80	3.17	3.70	.....	Lincoln.
	0.85	1.25	1.75	2.20	2.60	2.80	2.95	.....	.....	Cotswold.
Average elastic stretch in millimeters for the five breeds.....	0.90	1.17	1.65	2.05	2.39	2.74	3.05	3.80	4.10	

These values are also represented graphically in Plate VII. A scale of total elongations in millimeters is laid off along the vertical side of the table, with a similar scale of permanent and elastic elongations along its top and bottom. Points are then easily found by means of the data given in Tables 11 and 12, and being connected by right lines, a broken line is obtained for each breed, as shown by the full lines. By averaging the values, as in the tables, the average value is obtained for wool, indicated by a heavy, full line for permanent stretch, and by a heavy, full line for elastic stretch. To avoid confusion of lines, the lines of elastic stretch for the different breeds are omitted.

This diagram shows the following facts:

1. The permanent stretch increases nearly as fast as the total stretch.
2. The elastic stretch increases about half as fast as the total.
3. Consequently, the elastic stretch only changes about half as rapidly as the permanent stretch.
4. The permanent and elastic stretch are equal, as an average, when the total stretch equals about 4.3 millimeters, or 21.5 per cent. of the original length of the fiber.

II.—COMPARATIVE TENSILE STRENGTH OF WOOL, WROUGHT IRON, CAST IRON, AND STEEL.

To render this comparison more readily intelligible, it becomes necessary to change the average tensile strains in grams, on fibers of wool 4 centimillimeters in diameter, to corresponding strains in pounds per square inch of section of fiber.

The common diameter of fiber = 4 centimillimeters.

Its area of right cross-section = 12.5664 square centimillimeters.

One gram on a fiber having this area of cross-section corresponds to 10,000 grams÷12.5664 per square millimeters of section,=10 kilograms÷12.5664=.795773 kilogram per square millimeter of section of fiber.

One kilogram per square millimeter of section corresponds to 1422.308 pounds per square inch of section. (Thurston, Mat. Eng., I, 308.)

Consequently, one gram tensile strain on a fiber 4 centimillimeters in diameter exactly equals a strain of $.795773 \times 1422.308 = 1131.834$ pounds per square inch of section.

Therefore, if the general average tensile strains for wool, already found, be multiplied by this coefficient, we shall obtain their corresponding values in pounds per square inch. As this multiplier is constant, it does not affect the relative values of the different kinds of wool at all.

The results of this multiplication are found in the following table:

TABLE 13.—*Relative resistance and stretch of wool.*

Permanent stretch in millimeters.....	0.25	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00
Resistance in pounds per square inch.....	21.720	22.650	24.527	25.805	26.677	27.911	29.416	32.439	35.065	36.524	41.299
Total stretch in millimeters.....	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	.....	.....
Resistance in pounds per square inch.....	21.233	24.018	25.465	26.723	38.285	31.024	34.736	34.804	43.157	.....	.....

Since the original length of each fiber tested was 20 millimeters, if the stretch be multiplied by 5, we may obtain its expression in per cents of the original length, which is more convenient for comparison.

The average values for wool, given in Table XIII, are next compared with corresponding values obtained for wrought iron, cast iron, and steel, by experiments made by the United States Testing Board, published in Thurston's Materials of Engineering, Vol. II, pp. 351, 352, 398.

This comparison is made graphically on Plate VIII.

The line of permanent stretch for wool is broken, that of total stretch being a heavy full line. Since the lines of permanent stretch or set for the metals correspond very nearly with those for total stretch, they are here omitted for the sake of clearness.

A scale of strains, expressed in pounds per square inch, forms the vertical sides of the plate, while its top and bottom are scales of stretches in per cents of the original length of the piece.

This diagram exhibits the following facts:

1. That the curve of the total stretch for wool is of about the same inclination as that for wrought iron, but it is concave upward, the latter being convex.

2. The tensile strain for wool is about one-half that required to produce the same per cent. of total stretch in a wrought-iron bar of equal cross-section.

3. A permanent set commences in wool at about 59 per cent. of the amount of strain required to originate a set in a wrought-iron bar, or at about 37 per cent. of the ultimate tenacity of wrought iron of good quality.

4. For steel, the corresponding value is 34 per cent.

5. The ultimate average tenacity of wool appears to be nearly double that of average cast iron of equal cross-section, about four-fifths that of good wrought iron, and a little more than one-third that of good steel.

6. The maximum stretch of wool is much greater than that of either metal, being 1.75 times that of wrought iron, 12.8 times that of cast iron, and 4.5 times that of steel.

7. The permanent stretch or set of wool appears to commence only when the total stretch equals nearly 5 per cent. of the original length of the fibers, which is at least ten times greater than the corresponding value for either metal.

8. The curve for wool most nearly approximates that for wrought iron, but is plainly an ogee curve, while those for the metals are merely concave.

9. Wool has more than twice the strength of the toughest wood, $1\frac{1}{7}$ times that of bone, 4 times that of white pine, 2.7 times that of ivory, 5.6 times that of whalebone, and nearly as much as soft brass wire, phosphor bronze, annealed iron wire, or steel-wire rope.

I.—COMPARATIVE MODULI OF ELASTICITY OF WOOL FOR THE FIVE BREEDS.

(1) FORMULA FOR MODULUS OF ELASTICITY OF WOOL.

The term "modulus of elasticity," much employed in the discussion of the resistance of materials, may be defined in either of two ways.

(*a*) It is the ratio between the elongation of a bar of any material (whose section is a square unit and its length a linear unit of similar denomination) and the tensile strain producing that elongation; its numerical value equaling the quotient of the strain by the elongation. The length of the bar is usually an inch, its section a square inch, and the strain is taken in pounds.

(*b*) It is the tensile strain in pounds which would theoretically stretch a bar of one square inch section, to just twice its original length, neglecting the reduction of section which occurs.

The definition first given is that most frequently employed and is the one here intended.

Let E=the required modulus of elasticity.

Let S=tensile strain on a fiber of wool 4 centimillimeters in diameter, in grams.

Then 1131.834 S=strain on fiber in pounds per square inch.

Let e=corresponding total elongation in millimeters.

Since the length of fiber tested =20 millimeters, we have $5e$ =per cent. stretch, placing original length of fiber =100. Consequently

$$E=\frac{1131.834\,S}{\frac{5e}{100}}=22637\,\frac{S}{e}$$

which is the required formula.

Applying this formula to the average strains corresponding to the different elongations of fiber for wool of different breeds, as given in Table IX, total stretch, we obtain the values of the modulus of elasticity given in the following table, and which are also graphically represented on Plate IX.

Since the numerical value of the modulus evidently increases directly as the amount of strain required to produce a certain elongation of the fiber, it follows that the most resistant fibers will have the greater modulus.

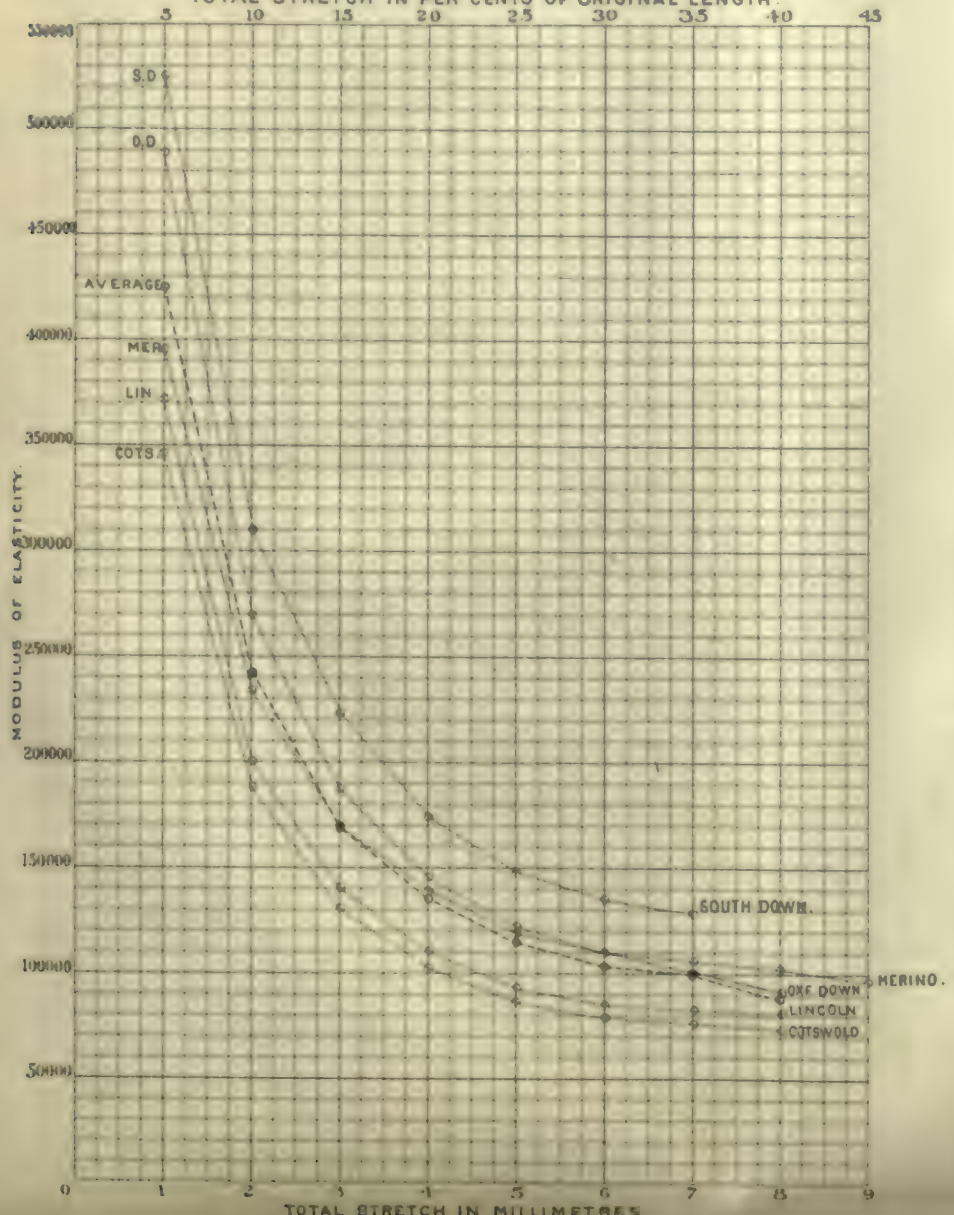
Consequently, the lines representing the values of the moduli of elasticity for the different breeds, under different elongations, will be arranged in the same order, as are the lines on Plate IV, representing the same breeds. A comparison of Plates IV and IX makes this evident.

The heavy dotted line indicates the average value of the modulus for all five breeds, under different amounts of stretch.

PLATE XII.

COMPARATIVE MODULI OF ELASTICITY FOR DIFFERENT BREEDS.

PLATE 9.



COMPARATIVE MODULI OF ELASTICITY OF WOOL. IRON AND STEEL.

PLATE 10.

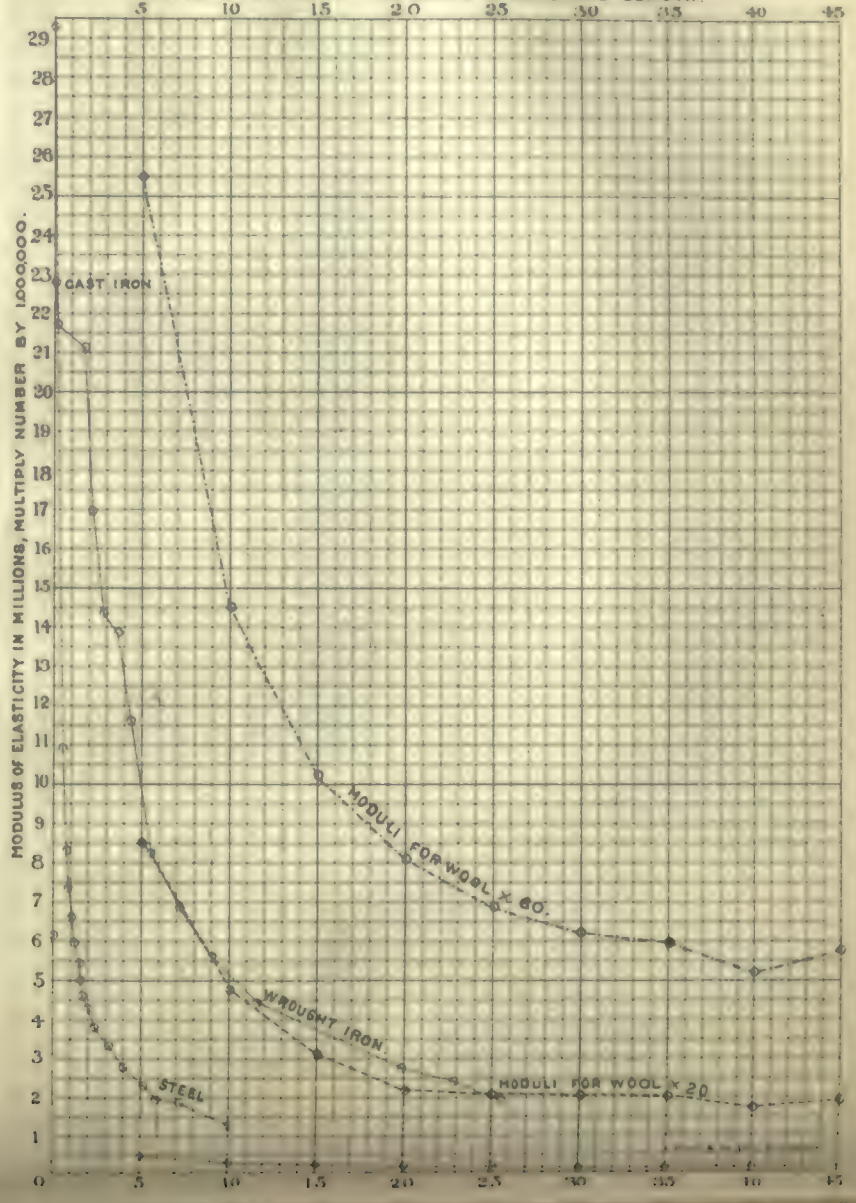

TOTAL STRETCH IN PER CENTS OF ORIGINAL LENGTH.
5 10 15 20 25 30 35 40 45
MODULUS OF ELASTICITY IN MILLIONS, MULTIPLY NUMBER BY 1000000.
29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0
CAST IRON
MODULI FOR WOOL X 60.
WROUGHT IRON
STEEL
MODULI FOR WOOL X 20
0 5 10 15 20 25 30 35 40 45

Plate IX also exhibits the following facts:

1. The modulus of elasticity for Merino wool is pretty nearly the average for the five breeds considered.

2. The value of the modulus diminishes very rapidly as the stretch increases, the relative values for the general average being as follows:

Stretch in per cent. of original length	5	10	15	20	25	30	35	40
Relative value of modulus of elasticity	100	57	40	32	27	24	24	21

3. The relative numerical values for the different breeds are arranged in the following order, from greatest to least: Southdown, Oxforddown, Merino, Lincoln, Cotswold.

J.—COMPARATIVE VALUES OF MODULUS OF ELASTICITY OF WOOL, WROUGHT IRON, CAST IRON, AND STEEL.

The value of the moduli for the metals is computed from the data already referred to (Thurston, Materials of Engineering, II, 351, 352, 398), by dividing the elongation per inch of length by the corresponding tensile strain in pounds per square inch of cross-section. The results are given graphically in Plate X.

The vertical scale of the table is one of pounds; the horizontal, one of elongations in per cents of the original length. The manner of plotting the lines for each material is sufficiently obvious.

In addition to the required lines representing the values of the modulus for the different materials, two dotted lines are also drawn, the lower one representing the values of the modulus for wool multiplied by 20; the upper line exhibiting the same values multiplied by 60.

An examination of this plate substantiates the following statements:

1. The values of the moduli of elasticity for the average of wool are much smaller than for either of the metals examined, but remain much more nearly uniform, under an increase of stretch and strain.

2. If they are increased 20 times, the resulting curve pretty nearly coincides with that for wrought iron.

3. If increased 60 times, the curve obtained is quite similar to that for wrought iron, though differently located.

4. None of these curves for wool have much resemblance to the curves for cast iron and steel.

5. If the maximum value of modulus of elasticity for average of wool be taken as unity, the relative values for other materials will be as follows:

White pine, 4; strongest woods, 5; silk, 3; brass wire, 34; phosphor bronze, 33; copper wire, 40; cast iron, average, 37; wrought iron, average, 59; steel, average, 67.

This relatively low value of the modulus of elasticity for wool does not affect its actual tensile strength, as it results from the much greater stretch produced in wool by the same strain than in almost any other material, but it only permits it to stretch more and with a smaller proportional permanent stretch than other materials, thus rendering it much better adapted to the manufacture of clothing, &c., than if the modulus were several times greater, or the stretch smaller.

TABLE 14.—*Moduli of elasticity for different breeds.*

	TOTAL STRETCH IN MILLIMETERS.									Breed.
	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	
Moduli of elasticity	372,374	200,335	139,367	108,826	92,131	84,774	81,636	81,351	.....	Lincoln.
	486,689	269,263	186,149	144,592	121,106	109,250	103,940	101,780	95,704	Oxforddown.
	345,662	186,753	130,236	101,865	86,155	78,700	75,801	73,343	.....	Cotswold.
	395,237	233,950	169,775	138,819	118,616	109,486	100,992	95,537	.....	Merino.
	523,813	310,802	223,349	173,850	147,037	134,494	128,512	.....	.....	Southdown.
Average moduli of elasticity for the five breeds	424,755	240,221	169,735	133,590	113,009	103,341	98,586	88,003	95,704	

MISCELLANEOUS EXAMINATIONS.

TABLE XXXIV.—*Results of measurements of fineness of Merino wools, submitted by Mr. Samuel Archer, Saint Louis, Mo.*

Catalogue number of samples	347.			348.			349. TOP OF WRINKLE.			349. BETWEEN WRINKLES.			350.			351.		
Length of fiber in crimp	3½.			3½.			2¼.			3¼.			2½.			3.		
Number of crimps per inch	16.			16.			14.			20.			20.			20.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	1.75	1.75	2.25	1.75	2.00	1.75	2.50	2.625	2.25	2.375	3.00	2.00	2.75	1.75	2.125	1.50	1.625	1.375
	1.50	2.00	3.00	1.75	3.00	1.75	1.75	2.50	2.50	1.75	1.875	3.00	2.25	2.125	2.875	2.00	1.25	2.00
	1.125	2.50	2.00	1.875	1.75	2.00	2.00	2.50	5.00	1.50	2.00	1.75	2.25	1.75	2.125	1.75	1.75	1.50
	1.125	2.625	2.25	3.125	3.25	2.25	2.375	2.125	4.25	2.00	1.875	2.50	2.50	2.00	2.125	1.375	1.50	2.00
	1.00	2.25	2.50	2.75	1.625	1.25	2.375	2.375	2.75	1.75	1.875	2.25	2.25	2.25	2.25	1.375	1.75	2.25
	3.125	2.125	1.875	2.00	1.75	1.375	2.00	2.25	2.50	1.625	2.25	3.125	2.50	2.25	2.50	1.375	1.75	1.75
	1.625	1.625	2.00	2.25	2.125	2.25	2.25	2.375	2.625	1.625	1.75	2.375	2.00	1.75	2.375	1.50	1.75	1.75
	1.00	2.00	1.50	1.625	2.75	2.125	2.00	2.50	2.875	1.75	1.75	2.25	2.625	2.00	2.00	1.625	1.625	2.375
	1.50	1.50	2.25	1.625	2.75	1.75	1.875	2.875	2.50	2.00	1.875	2.00	2.25	2.00	2.00	1.75	1.75	2.25
	2.00	2.00	1.625	1.75	2.00	1.625	2.00	2.25	2.75	2.25	1.75	3.25	2.375	2.00	2.00	1.25	1.50	1.50
	2.50	1.75	1.50	1.50	2.125	1.75	3.50	2.00	3.375	2.00	2.25	2.50	2.00	2.00	2.25	1.25	1.50	1.25
	1.25	1.75	1.50	2.00	2.00	2.125	2.25	2.25	3.00	2.375	2.50	3.25	2.50	2.25	2.00	2.25	2.00	1.625
	0.75	1.50	2.25	2.75	2.25	1.50	2.00	2.375	2.375	1.50	1.75	1.75	2.50	2.125	3.125	1.50	1.75	1.875
	2.125	1.125	2.00	1.75	1.875	1.50	1.75	2.50	2.375	1.875	1.75	2.00	2.50	2.125	2.00	1.375	1.375	1.375
	2.25	2.25	1.50	2.00	1.75	1.75	2.625	3.25	2.75	2.00	2.25	2.375	2.25	2.25	2.00	2.25	2.00	1.25
	1.25	2.00	1.50	2.25	2.25	2.25	3.00	2.00	3.50	1.75	1.875	2.25	2.25	2.00	2.00	1.75	1.375	1.50
	2.125	2.125	2.125	2.75	2.625	1.50	2.00	2.50	2.50	2.25	2.25	2.25	2.125	1.75	2.50	1.25	1.50	1.25
	1.25	2.25	2.25	1.50	2.50	1.75	2.125	3.75	2.75	2.00	2.125	2.25	2.25	2.00	2.00	1.50	1.50	1.50
	2.375	1.25	2.00	1.625	1.50	1.75	2.50	1.75	2.25	2.00	1.875	2.25	2.25	2.25	2.25	1.25	1.50	1.375
	2.00	1.625	1.625	1.75	1.75	2.25	2.125	2.25	2.00	2.125	1.75	2.25	2.25	2.00	2.50	2.75	1.50	1.375
	2.875	3.00	1.75	1.75	2.25	2.00	2.25	2.375	3.25	1.875	2.00	2.125	2.25	2.375	2.375	1.75	1.25	1.625
	1.375	2.50	1.75	2.25	2.00	2.25	1.875	3.00	3.875	1.75	1.50	2.00	2.50	1.875	2.00	1.75	1.375	2.25
	2.00	3.375	1.625	1.875	1.875	1.375	3.00	2.375	3.75	2.00	2.125	2.50	2.375	1.75	2.50	1.375	2.00	1.75
	2.125	2.00	1.875	1.875	1.875	1.50	2.75	2.50	3.375	2.00	2.00	2.25	2.25	2.25	2.25	1.25	2.00	2.00
	1.875	1.00	2.75	2.50	2.00	1.50	2.25	1.75	2.875	1.875	2.25	2.25	2.25	2.375	2.50	1.875	1.75	1.50
	2.25	1.125	1.625	1.75	2.25	1.75	2.50	2.75	2.75	2.50	2.25	2.00	3.00	2.00	2.75	2.25	1.75	1.75
	2.75	1.50	1.875	2.50	1.875	2.25	2.125	1.625	3.50	2.125	1.75	2.00	2.25	1.75	2.25	1.75	2.00	2.125
	1.50	3.00	2.50	2.00	1.625	1.875	2.50	2.00	3.125	2.00	2.50	2.75	2.125	1.875	2.00	1.75	1.75	1.25
	1.125	1.625	1.625	1.625	1.75	1.75	2.00	3.75	2.75	1.50	2.00	2.00	2.00	2.50	2.625	1.50	1.50	1.75
	1.50	1.375	1.50	1.75	1.875	1.625	2.50	1.875	2.25	1.75	2.25	2.125	2.50	2.00	2.50	1.375	1.25	1.75
Averages	1.766	1.95	1.945	2.008	2.10	1.804	2.308	2.433	2.945	1.929	2.033	2.32	2.337	2.045	2.291	1.641	1.629	1.695

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	3.125	1.2303	B¹	3.125	1.2303	B¹	3.50	1.3779	B¹	2.50	0.9842	B¹	3.00	1.1811	B¹	2.25	0.8862
	B²	3.375	1.3287	B²	3.25	1.2795	B²	3.75	1.4763	B²	3.00	1.1811	B²	2.50	0.9842	B²	2.00	0.7874
	B³	3.00	1.1811	B³	2.25	0.8862	B³	5.00	1.9685	B³	3.25	1.2795	B³	3.125	1.2303	B³	2.375	0.9350
Highest		3.375	1.3287		3.25	1.2795		5.00	1.9685		3.25	1.2795		3.125	1.2303		2.375	0.9350
Minimum measurements.	B¹	0.75	0.2953	B¹	1.50	0.5905	B¹	1.75	0.6889	B¹	1.50	0.5905	B¹	2.00	0.7874	B¹	1.25	0.4921
	B²	1.00	0.3937	B²	1.50	0.5905	B²	1.625	0.6397	B²	1.50	0.5905	B²	1.75	0.6889	B²	1.25	0.4921
	B³	1.50	0.5905	B³	1.25	0.4921	B³	2.00	0.7874	B³	1.75	0.6889	B³	2.00	0.7874	B³	1.25	0.4921
Lowest		0.75	0.2953		1.25	0.4921		1.625	0.6397		1.50	0.5905		1.75	0.6889		1.25	0.4921
Average measurements.	B¹	1.766	0.6952	B¹	2.008	0.7905	B¹	2.308	0.9086	B¹	1.929	0.7594	B¹	2.337	0.9200	B¹	1.641	0.6460
	B²	1.95	0.7677	B²	2.10	0.7913	B²	2.433	0.9578	B²	2.033	0.8003	B²	2.045	0.8051	B²	1.629	0.6413
	B³	1.945	0.7657	B³	1.804	0.7102	B³	2.945	1.1594	B³	2.32	0.9133	B³	2.291	0.9019	B³	1.695	0.6673
Averages		1.887	0.7429		1.971	0.7759		2.562	1.0086		2.094	0.8244		2.224	0.8755		1.655	0.6515
Measurements above average		43			40			32			40			51			42	
Measurements below average		47			50			58			50			39			48	

TABLE XXXIV.—*Results of measurements of fineness of Merino wools, &c.*—Continued.

Catalogue number of samples	352.			353.			354.			355.			356.			357.		
Length of fiber in crimp	2¾ inches.			2¾ inches.			2¾ inches.			2¾ inches.			2½ inches.			2½ inches.		
Number of crimps per inch	20.			20.			22.			20.			20.			20.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	1.50	2.00	1.75	1.75	1.75	2.125	1.50	2.50	1.75	2.00	2.50	2.875	2.00	2.375	2.50	1.75	2.75	2.00
	1.75	1.50	1.50	1.50	2.50	2.25	1.50	1.50	2.00	1.75	1.50	2.125	2.50	2.25	1.625	1.75	1.875	1.75
	2.25	1.875	2.25	1.75	1.875	1.625	1.50	2.75	2.25	2.00	2.125	2.00	2.25	2.25	1.875	1.375	2.125	2.25
	1.875	1.375	1.75	1.75	1.875	1.625	1.50	2.75	1.875	2.50	1.75	2.00	2.25	2.50	1.75	1.75	2.25	2.75
	2.00	1.75	2.00	1.625	1.625	2.00	1.50	1.75	1.75	1.75	1.50	1.875	2.50	2.375	2.25	2.375	2.50	1.50
	2.00	1.75	2.00	1.75	2.00	1.75	1.875	1.50	1.50	2.25	2.25	2.00	1.75	1.875	2.00	3.25	2.25	2.00
	1.75	2.00	1.625	2.00	2.75	2.00	1.50	1.625	1.875	2.625	2.00	2.00	2.75	3.50	2.125	1.25	2.50	1.50
	2.00	1.875	1.50	1.75	1.875	1.875	1.50	2.00	1.75	3.00	2.50	2.50	2.25	2.25	1.375	1.50	2.50	1.75
	2.25	1.75	1.375	1.875	1.75	1.50	1.625	1.75	2.00	2.00	1.50	3.00	2.00	2.75	2.00	1.875	2.50	2.50
	1.75	1.50	2.00	2.00	1.50	1.75	1.75	2.00	1.50	3.00	2.50	2.875	3.00	2.25	1.875	1.50	1.875	1.75
	2.00	1.75	1.50	1.625	1.75	1.75	1.25	2.50	1.625	1.625	1.875	2.50	2.50	2.625	1.75	2.125	2.25	1.75
	2.50	1.875	1.75	1.75	1.50	1.875	1.50	1.75	1.625	2.75	1.75	2.25	2.50	2.125	1.875	1.50	2.25	1.50
	1.75	1.50	1.75	2.25	1.875	1.75	2.00	2.25	1.75	1.75	1.75	1.75	2.75	2.50	2.50	1.25	1.75	1.50
	2.00	1.75	2.00	2.25	1.75	2.125	1.25	2.25	1.75	2.75	1.50	2.50	2.875	4.50	1.75	1.375	1.875	1.50
	2.25	2.00	1.25	1.75	2.00	1.875	1.50	2.00	1.50	2.375	2.25	2.125	2.25	2.00	2.00	2.25	2.25	1.75
	1.625	1.50	1.50	1.625	1.875	1.375	1.50	1.875	2.00	2.125	2.22	2.00	2.50	1.625	1.875	1.625	1.875	1.75
	1.75	1.625	1.75	1.875	1.50	2.00	1.875	2.375	3.25	1.875	1.625	1.75	2.00	2.25	1.875	1.125	2.00	1.875
	2.50	1.625	2.00	2.75	2.125	2.00	1.50	2.00	2.625	2.00	1.875	2.50	2.06	1.75	1.75	1.125	2.00	1.75
	1.75	2.25	1.50	1.75	2.875	1.75	1.50	2.00	2.00	1.75	1.75	2.875	2.00	1.75	3.50	1.375	1.625	1.58
	1.75	2.00	2.00	2.25	1.50	1.75	1.375	3.25	1.625	1.875	2.00	2.50	1.75	2.00	2.50	1.50	1.75	2.00
	1.875	1.75	1.875	1.625	1.75	2.00	2.25	1.25	1.75	2.125	2.00	2.25	2.00	2.00	2.25	1.50	2.25	2.25
	2.00	1.75	1.50	1.625	1.875	2.00	1.25	1.875	2.00	1.50	2.00	2.875	2.25	2.125	1.875	2.00	3.00	1.875
	2.25	1.875	1.75	2.00	1.50	1.50	2.75	2.00	2.25	2.00	1.875	2.00	2.50	1.75	2.00	1.50	2.00	1.625
	1.875	1.50	1.75	2.00	2.75	1.375	1.875	1.75	2.00	2.00	2.00	2.25	2.25	2.25	2.00	1.25	2.00	3.50
	1.875	2.125	1.875	2.50	1.50	1.75	1.75	1.75	1.50	2.00	2.25	2.50	1.875	2.50	1.875	1.375	1.875	2.00
	1.875	1.875	2.50	1.875	1.50	2.00	1.75	1.50	2.625	2.50	2.125	2.25	1.625	2.00	2.00	1.25	1.75	1.75
	1.75	1.75	1.875	2.00	2.875	1.50	1.50	2.625	2.00	1.75	2.625	2.75	2.50	1.625	2.125	1.125	1.875	1.50
	1.50	1.75	2.125	1.625	1.875	2.50	1.375	1.75	2.25	2.50	2.25	2.50	1.75	2.75	2.50	1.25	1.625	2.00
	1.25	2.25	2.00	1.50	1.375	1.875	1.125	2.00	1.875	2.00	3.375	3.00	1.875	2.25	2.375	1.50	3.00	1.75
	1.75	2.00	2.75	1.75	1.25	1.75	1.25	1.625	2.00	2.00	2.50	2.00	2.125	2.25	1.75	1.50	2.50	1.75
Averages	1.90	1.787	1.858	1.887	1.883	1.833	1.612	2.016	1.941	2.137	2.058	2.295	2.227	2.30	2.05	1.629	2.154	1.887

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B¹	2.50	0.9842	B¹	2.75	1.0826	B¹	2.75	1.0826	B¹	3.00	1.1811	B¹	3.00	1.1811	B¹	3.25	1.2795
	B²	2.25	0.8862	B²	2.875	1.1318	B²	3.25	1.2795	B²	3.375	1.3287	B²	4.50	1.7716	B²	3.00	1.1811
	B³	3.25	1.2795	B³	2.50	0.9842	B³	3.25	1.2795	B³	3.00	1.1811	B³	3.50	1.3779	B³	3.50	1.3779
Highest		3.25	1.2795		2.875	1.1318		3.25	1.2795		3.375	1.3287		4.50	1.7716		3.50	1.3779
Minimum measurements.	B¹	1.25	0.4921	B¹	1.50	0.5905	B¹	1.125	0.4429	B¹	1.50	0.5905	B¹	1.625	0.6397	B¹	1.125	0.4429
	B²	1.375	0.5413	B²	1.25	0.4921	B²	1.25	0.4921	B²	1.50	0.5905	B²	1.625	0.6397	B²	1.625	0.6397
	B³	1.25	0.4921	B³	1.375	0.5413	B³	1.50	0.5905	B³	1.75	0.6889	B³	1.375	0.5413	B³	1.50	0.5905
Lowest		1.25	0.4921		1.25	0.4921		1.125	0.4429		1.50	0.5905		1.375	0.5413		1.125	0.4429
Average measurements.	B¹	1.90	0.7480	B¹	1.887	0.7429	B¹	1.612	0.6346	B¹	2.137	0.8413	B¹	2.227	0.8807	B¹	1.629	0.6413
	B²	1.787	0.7035	B²	1.883	0.7413	B²	2.016	0.7936	B²	2.058	0.8102	B²	2.30	0.9055	B²	2.154	0.8480
	B³	1.858	0.7314	B³	1.833	0.7216	B³	1.941	0.7641	B³	2.295	0.9035	B³	2.05	0.8070	B³	1.887	0.7429
Averages		1.848	0.7275		1.867	0.7350		1.860	0.7307		2.163	0.8515		2.195	0.8641		1.890	0.7440
Measurements above average		43			43			41			40			43			44	
Measurements below average		57			57			59			60			58			56	

TABLE XXXIV.—*Results of measurements of fineness of Merino wools, &c.*—Continued.

Catalogue number of samples	358.			359.			360.			361.		
Length of fiber in crimp	2¼ inches.			2⅞ inches.			2¾ inches.			2½ inches.		
Number of crimps per inch	20.			20.			20.			20.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	1.875	2.50	2.00	1.75	1.875	1.875	2.50	2.00	1.50	1.75	1.75	2.375
	2.00	1.75	2.50	2.00	1.50	1.875	1.875	2.75	2.375	1.875	1.375	1.50
	2.00	1.50	2.00	2.00	1.50	2.125	2.50	2.25	1.875	1.125	2.25	1.875
	1.875	2.00	2.25	1.75	1.75	1.75	2.375	2.00	2.00	1.75	1.875	2.00
	2.125	2.75	2.375	1.75	2.00	2.50	2.50	2.75	2.50	1.50	2.50	2.00
	2.00	2.25	2.50	1.50	1.50	2.00	2.375	2.25	2.00	1.625	2.875	2.125
	1.875	1.75	2.00	1.75	1.875	1.875	2.25	2.00	1.75	2.00	1.50	2.00
	1.50	1.625	2.25	2.00	1.25	1.50	3.00	2.25	2.50	2.00	1.75	2.375
	1.75	1.75	1.875	2.25	1.375	2.50	2.75	1.625	2.00	1.625	1.375	1.75
	2.50	1.875	2.25	2.50	1.625	2.50	2.00	3.00	2.875	1.50	1.625	1.625
	2.625	2.50	2.75	1.75	1.50	1.75	2.00	2.00	1.50	1.75	1.75	2.50
	2.25	2.25	2.375	1.875	1.625	1.75	3.25	1.875	2.00	1.75	2.25	1.75
	2.35	2.00	2.125	2.60	2.25	1.50	2.25	2.50	1.75	1.75	1.75	1.50
	1.75	1.75	1.625	1.50	2.25	2.25	2.25	2.125	1.875	2.75	1.50	1.625
	2.00	1.75	2.00	1.75	2.50	2.375	2.50	2.50	2.50	1.875	1.625	2.00
	2.75	1.25	2.00	2.25	2.00	1.875	2.875	2.00	2.25	1.50	2.125	1.875
	1.75	1.625	2.125	1.50	1.50	2.00	1.875	2.25	3.25	2.00	1.50	1.75
	1.75	2.00	2.25	1.75	2.00	2.25	1.75	2.00	2.25	2.00	2.00	2.00
	2.125	2.00	2.25	2.00	1.50	2.375	2.25	2.125	3.25	1.75	1.875	1.75
	2.625	1.50	2.50	1.75	1.25	2.125	2.25	2.00	2.25	1.50	1.625	2.00
	2.25	1.50	1.875	1.75	2.50	2.25	2.75	2.50	1.875	2.00	1.625	2.00
	1.875	1.75	2.00	1.375	1.625	1.75	2.25	1.50	3.00	1.75	2.00	2.375
	1.75	2.00	3.25	2.75	1.75	1.75	1.75	2.50	2.50	1.50	1.50	2.00
	2.00	1.75	1.25	2.00	1.375	2.00	2.50	2.50	1.75	1.75	1.75	2.00
	2.00	1.75	1.875	1.875	2.00	1.50	2.00	2.375	2.25	2.125	1.75	1.75
	1.625	1.75	2.75	1.50	1.75	2.50	2.00	2.75	2.125	2.50	1.75	1.875
	2.25	2.00	1.875	1.75	1.75	2.50	2.50	2.25	3.00	2.00	2.00	2.50
	1.875	1.75	2.25	1.50	2.00	2.25	1.75	2.75	2.00	1.75	1.25	2.50
	1.625	2.00	3.00	1.75	1.75	1.75	2.125	2.00	2.50	1.875	2.25	2.625
	2.00	1.75	1.875	1.75	1.50	1.75	2.125	2.75	2.25	2.00	1.875	2.125
Averages	2.02	1.879	2.20	1.845	1.754	2.825	2.270	2.270	2.25	1.820	1.820	2.004

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:												
Maximum measurements	B¹	2.75	1.0826	B¹	2.75	1.0826	B¹	3.25	1.2795	B¹	2.75	1.0826
	B²	2.75	1.0826	B²	2.50	0.9842	B²	3.00	1.1811	B²	2.875	1.1318
	B³	2.25	1.2795	B³	2.50	0.9842	B³	3.25	1.2795	B³	2.625	1.0334
Highest		3.25	1.2795		2.75	1.0826		3.25	1.2795		2.875	1.1318
Minimum measurements	B¹	1.50	0.5905	B¹	1.375	0.5413	B¹	1.75	0.6889	B¹	1.125	0.4429
	B²	1.25	0.4921	B²	1.25	0.4921	B²	1.50	0.5905	B²	1.25	0.4921
	B³	1.25	0.4921	B³	1.50	0.5905	B³	1.50	0.5905	B³	1.50	0.5905
Lowest		1.25	0.4921		1.25	0.4921		1.50	0.5905		1.125	0.4429
Average measurements	B¹	2.02	0.7952	B¹	1.845	0.7263	B¹	2.270	0.8936	B¹	1.820	0.7165
	B²	1.879	0.7397	B²	1.754	0.6905	B²	2.270	0.8936	B²	1.820	0.7165
	B³	2.20	0.8661	B³	2.025	0.7972	B³	2.25	0.8858	B³	2.004	0.7889
Averages		2.033	0.8003		1.874	0.7377		2.263	0.8909		2.215	0.8720
Measurements above average		32			43			36			14	
Measurements below average		58			47			54			76	

TABLE XXXIV.—*Results of tests of strain and stretch of Merino wools submitted by Mr. Samuel Archer, Saint Louis, Mo.*

Catalogue number of samples..	347.				348.				349. TOP OF WRINKLE.				349. BETWEEN WRINKLE.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	5.75	3.25	11.75	1.25	7.00	2.75	7.50	5.00	21.00	7.00	11.50	3.25	7.00	2.25	10.00	6.25
	2.75	2.75	7.50	3.00	4.00	3.00	5.75	3.00	12.50	6.25	17.00	4.75	13.00	7.00	4.00	4.25
	8.00	1.00	4.75	1.00	3.75	4.75	4.00	3.50	13.00	3.00	11.50	3.75	3.75	3.00	4.00	2.00
	8.00	5.00	7.75	1.50	3.00	3.25	2.50	3.00	6.25	2.50	14.25	4.75	5.00	5.00	5.00	5.00
	6.00	2.00	9.00	5.50	9.00	5.00	6.25	6.50	11.25	5.00	6.00	2.00	5.00	3.00	4.00	4.75
	5.00	2.00	6.50	1.75	7.75	5.75	16.00	6.00	8.75	1.25	7.00	5.50	5.00	4.00	3.50	1.50
Actual measurement in grams and millimeters.	3.00	2.00	4.50	2.50	13.00	3.75	6.00	4.75	15.50	6.00	6.00	4.75	4.00	3.00	5.50	4.00
	14.00	7.75	7.25	7.00	5.00	1.00	4.00	6.00	19.25	5.75	6.00	4.50	4.25	3.50	6.00	2.75
	10.75	5.25	8.75	6.00	3.25	5.50	8.00	6.50	4.25	3.50	12.50	1.75	3.75	3.00	3.00	5.00
	11.00	7.00	5.00	5.00	4.25	5.75	4.00	7.00	5.50	5.00	13.50	5.75	8.25	6.25	3.75	1.50
	14.25	8.00	3.75	1.00	4.25	6.25	10.00	6.00	20.00	4.25	6.00	4.00	7.00	6.50	4.00	4.75
	3.25	1.50	5.25	1.75	6.25	6.00	3.25	4.75	4.00	1.50	15.50	3.50	10.00	5.50	5.25	5.00
	3.25	1.25	6.50	6.00	7.00	5.50	4.50	5.00	12.00	4.75	8.00	4.00	4.75	6.50	4.00	1.50
	5.25	4.00	12.50	7.50	11.00	5.50	3.00	5.00	12.50	5.50	12.75	5.00	3.75	3.00	4.00	5.25
	3.00	1.25	5.00	4.75	5.00	5.00	6.25	7.25	5.00	2.00	19.00	5.00	4.00	3.75	4.00	2.25
Total	105.25	54.00	105.75	55.50	89.50	78.75	91.00	79.75	168.25	67.25	168.50	60.25	90.00	64.25	63.00	51.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	14.25	219.94	8.00	40.00	16.00	246.95	7.25	36.25	21.00	324.13	7.00	35.00	13.00	200.65	7.00	35.00
Lowest	2.75	42.44	1.00	5.00	2.00	30.87	1.00	5.00	4.00	61.74	1.25	6.25	3.50	54.02	1.50	7.50
Average	6.97	107.58	3.65	18.25	6.02	93.08	5.29	26.45	11.23	173.33	3.92	19.60	5.10	78.72	3.86	19.30
Tests above average.....	13		13		13		15		17		16		10		14	
Tests below average.....	17		17		17		15		13		14		20		16	

Catalogue number of samples:	350.				351.				352.				353.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	4.25	3.50	3.00	2.75	3.00	4.00	5.50	5.75	5.00	2.50	5.50	7.75	3.75	4.00	4.75	4.25
	6.00	8.00	5.25	3.00	4.75	4.25	2.75	2.75	5.00	2.50	4.75	6.00	10.00	6.25	5.00	3.00
	8.00	6.00	5.00	5.00	6.75	6.75	4.25	7.00	4.00	4.25	8.75	5.00	3.00	3.00	4.00	6.00
	7.00	5.75	12.75	8.00	3.50	5.50	2.00	5.50	4.50	1.75	7.50	5.75	3.50	2.00	5.75	5.75
	3.75	1.75	6.50	3.00	3.25	6.50	2.75	4.00	4.75	6.25	6.00	6.50	3.00	7.50	6.50	7.00
	5.00	2.25	4.25	4.00	3.00	3.25	3.00	3.00	3.75	5.75	5.00	2.75	4.00	5.50	4.00	1.00
	7.00	3.50	5.00	6.00	5.00	4.00	2.00	3.25	4.25	5.00	5.50	5.50	4.75	1.50	5.00	5.00
Actual measurement in grams and millimeters.	6.00	7.25	5.00	2.75	4.00	4.50	6.50	4.00	4.00	4.00	3.00	2.75	8.25	5.00	7.00	5.00
	3.50	4.00	7.00	5.25	9.25	6.50	3.00	7.25	4.00	6.75	4.50	3.00	4.75	7.25	5.25	6.00
	5.00	5.00	5.20	1.50	3.00	6.50	5.00	7.00	12.75	7.50	3.50	3.25	4.00	2.75	6.25	7.00
	5.25	4.25	5.50	3.00	3.00	5.75	6.00	4.25	4.00	2.00	7.50	2.75	4.00	3.00	3.50	3.50
	5.75	2.50	5.75	3.50	5.00	4.00	3.75	7.00	11.00	7.00	3.00	3.50	5.00	6.25	9.50	3.25
	9.50	7.50	3.50	3.00	2.50	5.50	5.50	2.00	5.00	1.25	5.00	6.25	5.00	5.00	8.75	3.75
	5.00	4.75	5.50	5.50	3.00	2.00	6.50	2.00	3.50	6.25	5.00	4.00	5.75	1.50	5.00	5.00
	4.00	2.50	6.00	6.25	5.00	1.50	8.75	4.25	5.50	6.00	7.00	3.00	4.00	1.75	4.00	2.00
Total	86.00	68.50	95.25	69.50	63.00	69.50	64.25	70.00	81.00	68.75	81.50	70.75	77.75	62.25	84.25	67.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	12.75	196.79	8.00	40.00	9.25	142.77	7.25	36.25	12.75	196.79	7.75	38.75	10.00	154.35	7.50	37.50
Lowest	3.00	46.30	1.50	7.50	2.00	30.87	1.50	7.50	3.00	46.30	1.25	6.25	3.00	46.30	1.00	5.00
Average	5.75	88.13	4.60	23.00	4.24	65.44	4.65	23.25	5.42	83.66	4.65	23.25	5.40	83.35	4.23	21.65
Tests above average.....	13		15		12		13		10		16		10		15	
Tests below average	17		15		18		17		20		14		20		15	

TABLE XXXIV.—*Results of tests of strain and stretch of Merino wools, &c.*—Continued.

Catalogue number of samples..	354.				355.				356.				357.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	2.75	2.75	6.50	2.25	12.00	5.50	8.50	5.00	6.00	6.50	5.25	5.75	6.25	5.50	11.00	6.75
	5.00	4.00	4.50	5.50	6.00	5.25	6.75	5.00	4.75	2.75	5.75	7.50	8.00	2.75	5.25	4.25
	2.75	1.50	9.00	4.00	4.75	3.75	7.50	1.00	8.00	7.75	4.00	4.50	17.75	4.75	5.50	3.25
	3.00	4.00	5.25	2.00	11.50	2.75	6.50	4.75	6.25	5.50	3.00	1.00	8.00	5.25	4.25	3.75
	5.50	1.75	3.00	3.00	7.25	5.50	5.00	5.75	5.75	4.50	5.25	6.00	14.00	3.25	9.00	5.25
	5.75	7.00	6.75	6.25	10.75	4.50	8.50	5.00	4.00	2.00	8.00	5.50	11.25	6.50	9.50	4.25
	5.00	3.75	7.00	2.00	5.50	2.50	4.00	4.50	8.00	8.00	6.00	4.00	4.50	3.00	4.00	7.50
	8.00	4.50	4.50	3.00	5.75	6.50	6.50	5.00	4.25	4.25	4.75	2.50	11.75	2.75	10.00	4.00
	3.25	7.00	4.00	3.00	6.00	4.00	3.75	1.50	5.00	7.50	4.75	6.75	5.25	1.50	4.00	2.00
	5.25	2.75	2.75	6.00	5.00	2.00	5.50	4.00	5.25	4.25	7.00	4.50	8.75	8.00	5.00	4.75
	3.50	1.00	5.25	5.75	9.25	4.00	7.00	3.50	3.50	3.25	3.75	2.75	8.25	4.00	6.00	4.75
	3.25	4.25	3.00	4.50	6.00	1.50	4.25	1.25	5.00	5.00	6.75	6.50	16.00	4.75	16.00	4.75
	3.75	1.00	4.75	1.25	4.25	2.50	7.00	3.50	3.50	1.25	5.25	2.00	6.00	6.50	13.00	6.00
	5.75	6.25	3.00	5.00	3.75	2.50	8.00	2.75	4.00	7.00	4.50	4.00	4.00	7.00	17.00	4.25
	6.50	2.25	6.00	6.00	5.00	3.25	4.00	6.25	6.00	4.00	5.50	7.00	4.75	7.50	14.00	7.25
Total	69.00	55.75	75.25	59.50	102.75	56.00	102.75	58.75	79.25	67.50	79.50	70.25	134.50	73.00	133.50	72.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	9.00	138.91	7.00	35.00	12.00	185.22	6.50	32.50	8.00	123.48	8.00	40.00	17.75	273.96	8.00	40.01
Lowest	2.75	42.44	1.00	5.00	3.75	57.88	1.25	6.25	3.00	46.30	1.00	5.00	4.00	61.74	1.50	7.50
Average	4.81	74.24	3.84	19.20	6.85	105.73	3.83	19.15	5.29	81.65	4.59	22.95	8.94	137.98	4.86	24.30
Tests above average	15		15		11		16		12		13		13		12	
Tests below average	15		15		19		14		18		17		17		18	

Catalogue number of samples..	358.				359.				360.				361.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	4.00	2.00	5.00	4.25	5.00	5.75	4.50	2.00	8.25	4.50	6.50	5.00	4.75	6.25	7.00	5.50
	5.00	5.00	5.00	2.00	9.00	5.00	7.00	3.75	6.00	4.75	8.25	5.75	5.00	2.25	7.75	5.50
	5.75	4.00	6.00	6.50	5.00	5.50	7.00	5.00	7.25	5.50	12.00	6.50	5.00	3.00	4.75	4.75
	5.75	6.00	6.00	2.00	4.25	4.50	5.50	5.75	6.00	4.25	7.00	4.75	4.50	5.50	4.00	5.50
	4.75	4.00	6.00	4.50	4.75	4.50	4.75	3.75	8.00	4.00	9.00	3.50	3.00	2.75	6.00	5.00
	5.00	2.50	6.75	5.25	5.25	7.00	4.00	6.00	6.50	6.00	5.50	1.50	5.75	3.25	3.75	3.25
	8.00	3.50	5.50	2.00	7.00	4.50	8.25	4.00	10.50	5.75	7.00	6.00	5.00	6.25	3.25	3.75
	6.00	5.00	8.75	7.75	8.50	3.75	8.25	2.25	7.00	5.00	5.00	3.75	3.50	4.00	3.50	2.75
	6.50	3.25	6.75	3.50	4.50	5.50	5.25	4.25	5.00	4.50	5.75	2.25	3.50	2.75	7.00	2.00
	7.50	5.00	7.00	5.00	4.50	4.50	5.00	2.75	12.00	4.00	11.00	6.25	5.00	2.25	4.00	3.00
	6.00	6.00	5.00	6.50	5.50	2.25	9.25	4.00	5.25	2.50	9.25	6.75	7.00	4.75	3.00	5.25
	7.25	8.25	7.00	4.50	6.00	4.50	4.00	3.75	6.75	5.50	9.00	4.50	4.50	5.00	3.75	4.75
	4.75	8.00	6.00	3.50	7.25	2.00	6.50	6.50	12.00	7.50	10.75	7.00	4.00	6.00	6.50	7.00
	6.00	3.50	6.00	5.50	9.75	2.50	7.50	2.50	8.50	1.00	5.75	4.50	8.75	6.25	7.75	5.25
	5.00	5.00	4.50	1.00	10.75	2.75	5.00	3.25	6.00	3.50	5.00	1.50	4.25	4.75	4.75	5.75
Total	87.25	71.00	91.25	63.75	97.00	64.50	91.75	59.50	115.00	68.25	116.75	69.50	73.50	65.00	76.75	69.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	8.75	135.05	8.25	41.25	10.75	165.92	7.00	35.00	12.00	185.22	7.50	37.50	8.75	135.05	7.00	35.00
Lowest	4.50	69.46	1.00	5.00	4.00	61.74	2.00	10.00	5.00	77.17	1.00	5.00	3.00	46.30	2.00	10.00
Average	5.95	91.84	4.49	22.45	6.29	97.08	4.13	20.65	7.73	119.31	4.59	22.95	5.01	77.33	4.47	22.35
Tests above average	17		10		13		15		13		15		9		18	
Tests below average	13		14		17		15		17		15		21		12	

TABLE XXXV.—*Measurements of the length, crimp, and fineness of fiber of Merino wools, submitted by Hon. J. T. Rich, M. C. from Michigan.*

Catalogue number of samples	362. SIDE.			363. SHOULDER.			364. SIDE.			365. SHOULDER.				366. SHOULDER.			
Length of fiber in crimp	1¾ inches.			2 inches.			2¼ inches.			3 inches.				3 inches.			
Number of crimps per inch	16.			16.			21.			17.				19.			
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.
Actual measurement in centimillimeters.	2.0	2.5	1.25	1.5	2.25	2.25	2.25	1.75	2.5	1.75	2.25	1.5	1.5	2.0	3.0	2.0	1.25
	1.75	2.0	2.0	1.75	2.0	2.0	2.5	1.5	2.5	2.25	1.75	1.75	1.5	1.5	2.5	2.5	1.5
	2.25	2.25	1.5	2.0	2.5	2.25	2.0	1.5	2.25	1.75	2.0	1.75	1.75	2.25	2.0	2.25	2.0
	2.0	2.25	1.75	1.75	2.0	2.25	1.75	1.75	2.0	2.0	1.75	2.25	2.0	1.75	2.5	2.25	1.75
	2.5	3.0	2.0	2.75	1.75	1.5	1.75	1.75	2.25	1.75	2.0	2.0	1.25	2.0	2.0	2.0	1.5
	2.0	2.5	2.0	2.5	2.5	2.5	1.5	1.5	2.25	1.75	2.75	1.75	1.5	1.5	3.0	2.25	1.75
	2.5	2.5	1.75	1.75	2.5	1.75	2.0	2.75	2.25	1.75	2.5	1.75	1.75	1.5	3.0	3.25	2.0
	2.5	1.75	2.0	2.0	2.25	2.25	2.25	2.25	2.25	2.25	1.75	2.0	2.25	2.25	2.5	2.25	1.75
	1.75	1.75	1.5	1.75	1.75	2.75	2.0	1.5	2.0	1.5	2.5	2.25	1.75	1.75	2.0	2.0	1.75
	2.0	1.25	1.5	1.5	1.75	3.25	1.75	1.75	2.75	1.5	2.25	2.25	2.75	1.25	2.25	2.25	2.0
	2.25	2.75	1.75	2.0	2.25	2.0	2.25	2.5	1.75	2.0	1.75	2.0	1.75	1.5	2.25	2.0	2.0
	1.75	2.25	3.0	1.75	2.75	2.0	2.25	1.75	2.5	2.0	2.0	2.25	1.75	1.5	1.75	2.25	1.5
	1.75	2.25	2.75	2.5	1.75	1.75	2.25	1.75	1.25	1.75	2.0	2.0	2.25	1.5	2.0	1.75	1.0
	2.25	2.25	1.5	2.0	1.75	2.0	1.75	2.25	2.0	2.0	2.0	2.0	2.0	1.75	2.25	2.0	2.5
	1.75	2.0	1.75	2.25	3.25	1.75	2.0	2.25	1.5	2.0	2.5	2.25	1.5	1.5	1.75	2.25	1.5
	2.0	2.25	2.75	2.5	1.75	1.5	1.5	2.75	3.0	1.75	2.0	1.75	2.5	1.75	1.5	2.0	2.0
	2.25	2.5	2.0	2.5	2.5	2.25	2.25	2.25	1.5	2.0	1.75	1.75	1.5	1.25	2.0	2.5	2.25
	2.0	2.0	2.0	2.75	2.0	1.75	2.0	1.5	1.75	1.5	1.5	1.75	2.0	1.25	1.75	2.0	1.25
	2.0	2.0	2.5	2.25	3.0	1.75	1.75	1.75	2.25	1.25	2.0	2.75	2.0	2.25	2.0	2.5	1.5
	1.75	2.25	2.0	2.75	2.25	2.0	2.25	1.75	2.75	1.75	1.75	1.5	1.75	1.5	2.0	2.75	2.25
	2.0	2.0	2.25	2.25	1.75	1.5	1.75	2.25	3.0	2.5	1.75	2.0	2.0	1.75	2.5	2.5	2.0
	2.75	2.0	2.25	2.0	2.0	1.5	3.0	2.25	2.25	1.75	2.25	2.0	1.75	1.5	2.0	2.25	2.75
	2.5	2.0	1.5	2.5	2.25	1.75	2.25	2.5	2.5	1.5	1.75	1.75	1.75	2.25	2.5	2.25	2.25
	1.75	2.25	1.0	2.0	1.75	2.0	2.0	2.25	2.25	1.75	2.0	2.5	2.0	1.75	1.75	2.0	1.5
	2.0	2.25	2.75	2.25	1.75	1.5	1.5	2.0	2.75	1.75	1.5	1.75	1.5	1.75	2.5	2.0	1.5
	2.0	2.5	1.75	2.0	2.5	2.0	1.75	1.75	2.0	1.75	1.75	2.0	1.25	1.75	2.0	2.5	1.25
	1.75	1.75	2.75	2.75	2.25	1.75	1.75	2.0	2.5	2.0	2.0	2.25	2.0	1.5	1.75	3.25	1.5
	1.75	1.75	1.5	2.0	1.75	2.0	2.25	2.25	2.75	1.5	2.25	1.5	1.75	2.25	2.75	2.0	1.75
	2.25	2.5	2.25	2.0	1.75	1.5	1.5	1.5	2.5	1.5	2.25	2.0	1.75	1.25	2.5	2.5	1.5
	2.0	2.5	2.0	1.75	1.75	2.0	2.0	3.0	2.25	1.75	1.75	2.25	1.75	1.75	2.0	2.25	1.5
Averages	2.058	2.191	1.973	2.133	2.133	1.966	1.991	2.088	2.284	1.800	2.000	1.975	1.800	1.700	2.208	2.284	1.766

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements	B¹	2.75	1.0826	B¹	2.75	1.0826	B¹	3.0	1.1811	B¹	2.5	0.9842	B¹	2.25	0.8858
	B²	3.0	1.1811	B²	3.25	1.2795	B²	3.0	1.1811	B²	2.75	1.0826	B₂	3.0	1.1811
	B³	3.0	1.1811	B³	3.25	1.2795	B³	3.0	1.1811	B³	2.75	1.0826	B₃	3.25	1.2795
										B⁴	2.75	1.0826	B⁴	2.75	1.0826
Highest		3.0	1.1811		3.25	1.2795		3.0	1.1811		2.75	1.0826		3.25	1.2795
Minimum measurements	B¹	1.75	0.6889	B¹	1.5	0.5905	B¹	1.5	0.5905	B¹	1.25	0.4921	B¹	1.25	0.4921
	B²	1.25	0.4921	B²	1.75	0.6889	B²	1.5	0.5905	B²	1.5	0.5905	B²	1.5	0.5905
	B³	1.0	0.3937	B³	1.5	0.5905	B³	1.25	0.4921	B²	1.5	0.5905	B²	1.75	0.6899
										B⁴	1.25	0.4921	B⁴	1.25	0.4921
Lowest		1.0	0.3937		1.5	0.5905		1.25	0.4921		1.25	0.4921		1.25	0.4921
Average measurements	B¹	3.078	0.8102	B¹	2.133	0.8397	B¹	1.991	0.7838	B¹	1.800	0.7086	B¹	1.700	0.6692
	B²	2.191	0.8625	B²	2.133	0.8397	B²	2.008	0.7905	B²	2.000	0.7874	B²	2.208	0.8692
	B³	1.975	0.7775	B³	1.966	0.7740	B³	2.266	0.8921	B³	1.975	0.7775	B³	2.283	0.8988
										B⁴	1.800	0.7086	B⁴	1.766	0.6952
Averages		2.074	0.8165		2.077	0.8177		2.088	0.8220		1.893	0.7452		1.989	0.7830
Measurements above average		57			35			44			57			71	
Measurements below average		53			55			46			43			49	

TABLE XXXV.—*Measurements of the length, crimp, and fineness of fiber of Merino wools, &c.*—Continued.

Catalogue number of samples	367. SHOULDER.				368. SIDE.				369. BELLY.			370. SIDE.		
Length of fiber in crimp	3 inches.				2¾ inches.				2¼ inches.			2½ inches.		
Number of crimps per inch	16.				13.				16.			18.		
Number of section	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	1.75	2.25	1.75	2.0	1.25	1.75	2.0	1.75	2.5	2.25	2.5	1.75	1.75	1.5
	1.5	1.75	3.0	2.75	1.25	1.75	3.5	1.25	2.5	2.5	2.0	1.75	1.75	2.75
	1.5	1.5	2.5	1.5	1.5	2.0	1.75	1.75	2.0	2.25	1.5	2.0	1.5	1.5
	1.5	2.0	1.5	1.75	1.25	2.0	3.25	2.75	2.5	2.5	1.5	2.0	2.5	1.75
	1.5	2.5	2.0	1.5	1.5	2.5	2.25	2.5	2.25	2.25	2.0	2.0	2.25	2.0
	1.5	2.5	1.75	1.25	1.25	1.75	2.0	2.75	2.0	2.25	1.5	1.5	1.5	2.25
	1.25	2.5	2.5	1.25	1.5	2.75	1.5	1.75	2.0	2.0	1.25	1.5	2.0	3.0
	1.75	2.0	1.75	1.25	1.5	2.0	2.0	2.0	2.0	2.5	2.25	1.5	1.75	2.25
	2.0	2.0	2.0	1.25	1.5	1.75	2.0	2.25	2.0	2.25	1.5	1.5	2.0	2.25
	1.25	2.25	3.5	2.0	1.75	2.0	2.0	1.75	2.5	2.0	2.5	1.5	2.0	2.25
	1.25	2.0	2.25	2.75	1.5	1.75	1.75	1.75	2.5	2.5	2.25	1.5	2.0	2.25
	1.25	1.75	1.75	1.5	1.25	2.25	1.5	2.25	2.5	2.5	1.75	2.0	1.75	2.25
	2.0	2.25	1.75	1.0	1.75	2.5	2.25	4.5	2.5	2.25	1.5	1.5	1.75	2.25
	1.5	2.0	2.25	1.25	2.25	4.0	2.5	2.0	2.5	2.25	1.25	3.0	1.75	2.25
	1.5	2.0	2.0	1.25	1.5	2.0	2.25	2.5	2.0	2.5	2.25	2.0	2.0	1.5
	1.75	2.25	1.75	1.5	1.5	2.5	1.75	2.5	2.0	2.0	1.25	1.75	2.25	1.5
	1.5	4.0	1.75	2.75	2.0	2.25	2.75	1.5	2.0	2.25	1.5	2.0	1.75	1.75
	1.5	2.5	2.5	1.25	1.75	2.5	2.25	1.5	1.5	2.5	1.25	2.5	1.75	2.25
	1.5	2.0	2.0	1.5	2.25	3.5	3.0	1.5	2.0	2.0	2.0	1.75	2.0	2.25
	1.5	2.0	1.5	1.75	1.75	2.25	2.25	2.0	2.0	2.0	1.5	1.5	2.0	2.5
	2.5	2.5	1.75	1.75	1.5	2.0	2.25	2.5	2.0	2.0	1.5	2.25	2.25	2.25
	1.5	2.0	1.5	3.0	1.75	2.0	1.75	1.5	1.75	2.25	1.5	2.0	1.5	2.25
	3.25	2.0	2.5	1.5	1.5	2.5	1.75	1.75	2.75	2.25	2.5	2.0	2.25	2.25
	1.5	3.5	1.75	1.75	1.25	2.75	2.5	2.25	2.0	2.5	1.75	1.75	1.75	2.25
	1.5	2.5	1.75	2.75	2.0	2.5	2.0	1.25	2.25	2.5	1.5	1.75	2.0	2.0
	1.5	2.5	2.25	1.25	1.5	2.0	2.25	1.25	1.5	2.0	2.25	2.0	2.0	1.5
	1.25	2.25	2.0	2.0	1.75	2.5	1.75	2.25	2.25	2.25	2.25	1.5	1.75	2.25
	1.5	2.0	2.5	2.25	1.5	2.5	1.75	2.25	2.0	2.5	2.25	1.75	2.0	2.0
	1.75	2.25	1.75	1.5	2.0	1.75	2.0	2.0	2.0	2.0	2.0	2.0	2.5	1.75
	1.5	1.75	1.5	1.25	1.75	2.0	4.5	1.75	2.25	2.25	1.25	1.5	2.5	2.0
Averages	1.616	2.241	2.033	1.733	1.675	2.275	2.233	2.041	2.150	2.266	1.791	1.833	1.933	2.091

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:												
Maximum measurements	B¹	3.25	1.2795	B¹	2.25	0.8858	B¹	2.75	1.0826	B¹	3.0	1.1811
	B²	4.0	1.5748	B²	4.0	1.5748	B²	2.5	0.9842	B²	2.5	0.9842
	B³	3.5	1.3779	B³	4.5	1.7716	B³	2.5	0.9842	B³	3.0	1.1811
	B⁴	3.0	1.1811	B⁴	4.5	1.7716						
Highest		4.0	1.5748		4.5	1.7716		2.75	1.0826		3.0	1.1811
Minimum measurements	B¹	1.25	0.4921	B¹	1.25	0.4921	B¹	1.5	0.5905	B¹	1.5	0.5905
	B²	1.5	0.5905	B²	1.75	0.6899	B²	2.0	0.7874	B²	1.5	0.5905
	B³	1.5	0.5905	B³	1.5	0.5905	B³	1.25	0.4921	B³	1.5	0.5905
	B⁴	1.0	0.3937	B⁴	1.25	0.4921						
Lowest		1.0	0.3937		1.25	0.4921		1.25	0.4921		1.5	0.5905
Average measurements	B¹	1.616	0.6352	B¹	1.675	0.6594	B¹	2.150	0.8464	B¹	1.833	0.7216
	B²	2.241	0.8822	B²	2.275	0.8956	B²	2.266	0.8763	B²	1.933	0.7610
	B³	2.033	0.8003	B³	2.233	0.8791	B³	1.791	0.7051	B³	2.091	0.8232
	B⁴	1.733	0.6822	B⁴	2.041	0.8035						
Averages		1.905	0.7499		2.056	0.8094		2.069	0.8145		1.952	0.7685
Measurements above average		53			43			44			52	
Measurements below average		67			77			50			38	

TABLE XXXV.—*Results of tests of strain and stretch of Merino wools, submitted by Hon. John T. Rich, Elba, Mich.*

Catalogue No. of samples..	362. SIDE.				363. SHOULDER.				364. SIDE.				365. SHOULDER.				366. SHOULDER.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*
Actual measurement in grams and millimeters.	7.25	1.00	7.20	2.50	6.50	4.75	6.75	4.25	6.50	5.00	3.75	9.00	8.25	8.00	7.75	0.50	4.25	4.00	3.00	3.25
	4.75	7.00	10.50	3.00	4.75	4.75	12.00	6.25	3.25	8.00	4.50	7.50	6.50	5.50	6.00	4.25	5.25	4.75	7.00	1.75
	5.00	3.75	2.75	3.75	10.00	7.00	5.50	6.25	6.25	5.75	5.25	1.75	7.00	9.00	5.50	8.00	8.25	7.75	7.00	5.00
	6.50	2.50	4.25	5.00	3.00	3.00	5.25	4.00	7.25	7.75	4.25	6.50	4.75	2.50	3.25	5.00	4.25	4.00	3.50	4.75
	9.00	5.25	5.25	8.00	11.00	6.25	6.25	2.00	8.50	3.50	3.25	8.25	6.00	4.50	3.00	4.75	5.50	5.00	4.00	5.75
	6.75	1.00	4.00	6.50	5.00	4.25	7.25	3.75	8.25	8.75	8.50	8.50	6.50	3.00	5.00	8.00	7.00	7.50	5.00	5.00
	6.00	7.25	3.25	3.25	10.00	3.75	8.00	3.00	3.50	5.50	3.00	4.50	4.50	4.75	9.00	8.75	7.00	6.00	5.00	8.00
	4.75	5.50	5.00	1.75	10.25	6.50	9.50	3.00	7.00	7.00	3.00	6.50	6.00	7.25	4.00	2.00	4.50	5.00	5.50	8.00
	4.00	5.75	5.00	5.00	13.00	8.75	4.00	2.75	3.00	2.25	5.00	2.00	4.75	8.00	5.25	4.75	5.25	7.00	8.75	6.00
	5.75	4.00	6.75	4.50	4.75	3.00	5.25	5.50	3.25	6.00	3.25	5.00	3.00	7.50	3.50	7.00	5.25	4.00	5.00	9.00
	4.00	3.00	5.50	7.00	3.75	2.00	3.75	5.25	5.50	4.00	3.25	5.00	6.00	4.75	5.00	10.00	7.00	6.50	6.50	7.00
	4.00	3.75	10.25	4.75	2.50	2.00	6.25	5.00	3.75	6.75	5.00	2.75	3.75	8.00	2.50	2.50	5.00	5.75	4.00	2.50
	3.50	2.75	4.25	6.00	2.00	2.00	5.75	7.00	8.25	7.50	7.00	5.00	3.75	7.50	6.75	4.50	5.00	5.00	3.50	3.25
	6.50	1.00	10.00	2.00	6.50	3.50	4.75	4.75	5.00	4.00	8.50	6.00	3.75	6.00	5.50	5.00	5.00	6.00	8.50	3.75
	4.00	3.00	5.75	5.75	7.00	5.25	8.00	4.00	4.00	6.50	3.50	7.50	3.25	6.25	6.00	6.00	5.00	7.50	5.50	5.50
Total.....	81.75	58.50	89.75	68.25	100.50	66.75	98.75	69.75	73.25	88.25	73.25	88.25	77.25	86.50	77.75	87.50	88.50	87.25	83.75	81.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*gms.*	*grs.*	*mm.*	*per ct.*	*gms.*	*grs.*	*mm.*	*per ct.*	*gm.*	*grs.*	*mm.*	*per ct.*
Highest	10.50	162.06	8.00	40.00	13.00	200.65	12.00	34.75	8.50	131.19	9.00	45.00	9.00	138.91	10.00	50.00	8.75	135.05	9.00	37.03
Lowest	2.75	42.44	1.00	5.00	2.00	30.87	2.00	10.00	3.00	46.30	1.75	8.75	2.50	38.59	1.50	7.50	3.20	54.02	1.75	8.75
Average	5.72	88.29	4.16	20.80	6.63	102.49	4.45	22.25	4.88	75.32	5.90	29.50	5.17	79.81	5.80	29.00	5.58	86.14	5.63	28.15
Tests above average.....	13		14		12		10		14		17		15		16		9		16	
Tests below average.....	17		16		18		14		16		13		15		14		21		14	

Catalogue No. of samples..	367. SHOULDER.				368. SIDE.				369. BELLY.				370. SIDE.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	2.50	1.00	2.25	4.25	3.00	7.00	3.50	8.25	5.25	4.00	2.00	2.50	5.50	4.50	0.25	7.50
	5.00	8.50	3.50	5.50	3.25	3.75	4.25	7.00	1.75	5.75	3.25	6.00	3.50	7.50	3.00	7.25
	3.50	7.75	2.50	4.75	8.00	7.25	10.00	5.00	3.25	7.50	5.50	4.00	3.00	4.50	5.50	1.50
	3.25	5.00	4.75	6.75	0.25	7.25	4.50	6.50	7.00	5.00	5.25	5.25	5.50	0.75	4.00	8.50
	4.50	7.00	2.75	5.75	4.25	7.00	4.75	7.00	3.50	5.75	3.75	2.00	3.50	1.25	3.00	7.25
	3.25	7.00	2.25	6.00	10.00	9.00	5.00	7.00	3.50	5.00	6.00	4.00	3.00	8.00	3.75	7.75
	4.00	7.00	3.75	5.50	4.00	4.00	3.75	3.75	4.00	1.75	2.00	4.50	2.75	4.00	3.25	1.50
	3.25	5.25	3.75	3.75	6.25	7.00	7.25	8.50	3.75	3.00	4.00	2.50	5.00	8.25	6.00	3.25
	4.00	6.00	8.50	8.50	4.00	3.25	3.25	6.75	5.50	4.50	5.75	5.25	3.00	6.00	3.00	7.00
	11.00	8.75	10.00	6.00	4.00	6.00	4.50	7.50	5.25	5.25	3.00	2.00	3.25	5.75	3.00	3.00
	3.75	7.25	4.00	8.00	5.00	5.00	6.00	4.50	4.00	1.50	1.50	1.00	4.00	7.00	6.00	3.75
	7.75	6.50	5.50	8.00	5.50	2.00	5.50	7.25	5.75	2.50	8.25	4.00	5.25	2.75	3.00	7.00
	3.00	3.50	4.00	3.75	5.25	6.50	3.25	5.00	5.00	5.50	5.50	6.50	6.25	5.75	4.25	4.25
	3.00	5.50	3.25	7.00	3.25	7.00	0.25	8.75	6.00	3.00	4.00	3.00	4.00	7.00	2.75	7.00
	4.00	3.00	5.00	5.75	5.25	7.25	11.00	6.50	2.00	5.00	5.75	5.00	2.50	2.00	4.25	7.50
Total.....	65.75	80.00	65.75	89.25	77.25	96.25	81.75	99.25	65.50	59.00	65.50	55.50	60.00	81.00	61.00	86.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	11.00	169.73	8.75	43.75	11.00	169.78	9.00	45.00	8.25	127.34	6.50	32.50	6.25	96.47	8.50	42.50
Lowest	2.25	34.73	1.00	5.00	3.00	46.30	3.25	16.25	1.50	23.15	1.00	5.00	2.50	38.59	1.25	6.25
Average	4.38	67.60	5.94	29.70	5.40	83.35	6.52	32.60	4.37	67.45	3.82	19.10	4.03	62.20	5.57	27.85
Tests above average.....	9		15		11		18		14		17		11		18	
Tests below average.....	21		14		19		12		16		13		19		12	

TABLE XXXVI.—*Measurements of length, crimp, and fineness of Merino wools, submitted by Mr. William G. Markham, Avon, N. Y.*

	371.			372.			373.		
Catalogue number of samples									
Length of fiber in crimp	2⅝ inches.			2⅝ inches.			2⅝ inches.		
Number of crimps per inch	20			22			25		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters	2.00	3.00	2.00	2.50	3.00	1.50	2.00	2.00	2.125
	2.625	2.00	2.125	2.25	2.25	2.50	2.25	1.50	1.75
	1.875	2.00	2.50	1.75	2.50	2.75	1.375	2.00	2.50
	1.75	2.25	2.375	2.00	2.00	3.00	1.75	1.75	2.25
	2.00	1.75	3.50	2.125	2.375	2.00	2.125	1.25	2.375
	2.00	1.475	2.00	2.00	1.875	2.25	2.00	1.75	2.00
	2.25	2.25	2.00	1.375	1.75	1.75	1.50	1.50	1.50
	2.125	2.125	2.25	2.00	2.50	3.00	1.75	1.25	2.00
	2.00	2.75	2.00	2.00	2.25	2.50	2.25	2.00	2.00
	2.125	2.125	2.25	2.25	2.25	1.875	2.375	1.50	2.00
	2.375	2.625	2.25	1.875	1.625	1.75	1.875	2.00	2.125
	2.25	1.75	1.625	1.625	2.00	2.50	2.50	1.75	2.00
	2.00	2.375	1.75	1.75	1.625	2.00	1.625	1.50	2.25
	2.00	2.00	2.125	1.75	2.00	2.75	1.875	2.00	1.875
	2.50	2.00	2.00	2.00	1.50	1.75	1.875	2.00	2.125
	2.00	2.75	2.375	2.125	1.50	2.375	1.75	1.50	1.875
	2.125	1.75	1.75	2.25	1.875	3.00	2.25	2.125	2.125
	2.00	2.50	2.125	1.75	2.50	2.50	2.375	1.75	2.00
	1.875	1.625	2.125	1.50	1.625	2.25	1.875	1.75	2.50
	2.00	2.125	2.25	1.625	2.50	1.875	1.75	1.75	1.50
	1.875	2.00	2.25	1.75	1.625	1.75	1.75	1.50	2.25
	2.125	1.875	2.50	1.625	1.50	2.125	1.25	1.75	2.00
	2.50	1.75	1.75	2.50	1.50	4.00	1.50	1.625	1.875
	2.50	2.50	2.125	1.75	1.875	2.125	1.75	2.00	2.375
	2.125	1.75	1.75	1.625	2.75	1.75	2.25	1.625	2.00
	2.25	1.75	2.00	1.75	2.125	2.00	2.25	1.50	1.75
	2.50	2.25	1.75	1.75	2.00	2.25	1.375	2.00	1.75
	2.375	2.25	2.00	1.50	1.875	1.25	1.50	1.25	1.50
	2.25	2.00	2.125	1.625	1.50	1.50	2.00	1.875	1.50
	2.25	1.875	2.375	1.375	1.875	2.25	1.75	2.00	2.00
Averages	2.154	2.121	2.133	1.858	2.004	2.229	1.883	1.725	1.988
	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:									
Maximum measurements	B¹	2.625	1.0334	B¹	2.50	0.9842	B¹	2.50	0.9842
	B²	3.00	1.1811	B²	3.00	1.1811	B²	2.125	0.8366
	B³	3.50	1.3779	B³	4.00	1.5748	B³	2.50	0.9842
Highest		3.50	1.3779		4.00	1.5748		2.50	0.9842
Minimum measurements	B¹	1.75	0.6889	B¹	1.375	0.5413	B¹	1.25	0.4921
	B²	1.625	0.6397	B²	1.50	0.5905	B²	1.25	0.4921
	B³	1.625	0.6397	B³	1.25	0.4921	B³	1.50	0.5905
Lowest		1.625	0.6397		1.25	0.4921		1.25	0.4921
Average measurements	B¹	2.154	0.8480	B¹	1.858	0.7314	B¹	1.883	0.7413
	B²	2.121	0.8350	B²	2.004	0.7889	B²	1.725	0.6791
	B³	2.133	0.8397	B³	2.229	0.8775	B³	1.988	0.7826
Averages		2.136	0.8409		2.030	0.7992		1.865	0.7342
Measurements above average		34			35			50	
Measurements below average		56			55			40	

TABLE XXXVI.—*Results of tests of strain and stretch of samples of Merino wools, submitted by Mr.. William G. Markham, Avon, N. Y.*

Catalogue number of samples	371.				372.				373.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurements in grams and millimeters	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	4.00	5.25	3.50	6.75	4.00	3.00	3.25	6.50	3.00	5.25	4.50	8.00
	4.50	7.75	8.50	8.25	2.50	6.00	3.00	2.25	5.25	8.00	3.00	4.00
	5.75	7.75	3.75	5.75	5.75	5.75	4.00	5.25	3.75	7.00	3.00	4.75
	3.00	3.75	5.00	4.50	8.75	8.25	5.00	3.75	3.00	1.75	2.50	3.25
	4.25	6.75	6.00	3.00	2.00	6.75	3.75	5.50	5.50	7.50	2.00	2.25
	6.00	5.75	6.25	5.00	4.00	6.00	6.00	7.00	3.00	5.50	6.00	9.00
	8.00	8.00	10.50	7.50	2.75	6.00	3.25	7.25	3.50	2.50	3.00	3.25
	5.00	7.25	4.50	6.50	2.25	5.00	4.00	7.00	4.25	5.50	2.50	4.50
	4.75	5.75	5.00	8.25	4.00	5.00	3.00	6.00	4.00	7.50	3.00	3.75
	4.00	5.50	5.00	7.00	7.00	5.50	5.00	8.00	3.00	3.00	3.00	5.25
	7.00	7.50	7.25	8.00	3.00	8.00	3.00	2.75	3.25	6.50	2.75	1.75
	9.00	8.50	4.00	6.75	3.50	7.50	5.75	3.50	4.25	7.00	4.25	5.75
	4.25	7.00	3.00	9.00	3.00	6.75	3.75	6.50	2.25	2.75	2.50	2.25
	4.50	7.50	3.00	6.50	4.25	3.00	5.25	6.00	2.00	3.50	2.25	5.00
	8.00	8.00	5.50	7.75	4.50	5.75	3.00	2.75	4.00	3.75	2.00	4.75
Total	82.00	102.00	88.75	100.50	61.25	88.25	59.00	80.00	54.00	80.00	46.25	65.50

Recapitulation:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	10.50	162.06	9.00	45.00	8.75	135.05	8.25	41.25	6.00	92.60	9.00	45.00
Lowest	3.00	46.30	3.00	15.00	2.00	30.87	2.25	11.25	2.00	30.87	1.75	8.75
Average	5.69	87.82	6.75	33.75	4.00	61.74	5.60	28.00	3.34	51.55	4.85	24.25
Tests above average	11		16		9		11		11		11	
Tests below average	17		11		16		12		19		15	

TABLE XXXVII.—*Actual measurements of length and fineness of Angora goat hair.*

Catalogue number of samples	194.				195.				196.				197.				382.		
Length of fiber in crimp	6 inches.				5½ inches.				9 inches.				9½ inches.				7½ inches.		
Number of section	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.	B⁴.	B¹.	B².	B³.
Actual measurement in centimillimeters.	2.25	3.25	2.25	3.0	2.875	2.875	2.875	2.375	2.875	3.5	3.5	3.25	3.375	2.25	2.375	1.75	2.875	3.75	4.25
	2.875	3.25	2.625	2.375	2.375	3.25	3.0	2.75	3.75	3.375	4.125	4.5	5.5	1.75	3.75	2.375	1.50	3.00	4.25
	2.625	2.0	3.0	3.375	2.875	2.825	2.75	2.75	3.375	4.25	3.125	2.125	1.5	2.125	2.25	3.0	2.50	3.625	3.875
	2.875	2.375	2.125	2.375	3.5	2.875	2.625	2.375	4.0	3.0	2.5	2.5	1.375	1.25	2.5	2.75	3.50	3.00	2.875
	2.75	2.875	2.0	2.875	3.0	2.875	2.75	2.0	3.25	3.375	4.375	3.0	2.375	2.0	2.5	2.75	3.50	4.25	2.125
	2.25	3.25	2.0	2.875	3.5	2.875	2.875	2.5	4.625	3.875	3.375	3.125	1.375	1.875	2.5	3.375	3.00	3.50	3.25
	2.75	2.375	2.375	3.0	3.25	3.5	2.75	1.875	5.375	4.625	3.5	2.75	2.0	2.0	2.625	3.25	3.00	4.00	2.375
	3.0	2.25	3.125	2.5	3.0	2.875	2.5	2.125	3.0	3.875	4.875	2.5	1.5	1.5	2.25	3.0	3.625	2.75	2.125
	3.0	2.75	2.5	2.125	2.875	3.0	3.25	2.0	3.25	2.5	2.875	4.25	1.625	2.875	2.5	1.75	4.375	2.50	3.625
	3.0	2.25	1.875	2.5	2.75	2.0	2.0	1.0	3.5	2.5	3.125	3.625	2.125	2.375	3.375	3.5	3.00	3.00	2.875
	2.375	1.875	2.0	2.125	3.25	2.5	3.0	2.75	4.5	5.0	3.75	3.5	1.375	2.0	2.875	2.875	3.25	2.75	2.50
	2.25	2.625	2.625	2.375	3.25	3.0	2.875	2.75	3.75	4.875	2.75	4.25	1.75	1.5	2.75	3.5	3.375	3.00	2.00
	2.875	1.75	1.875	2.875	3.25	2.5	2.0	1.875	3.375	4.5	3.5	4.25	1.75	2.0	2.25	4.0	3.25	2.625	2.125
	2.5	3.0	2.125	2.25	4.25	2.5	3.0	2.375	4.375	4.0	4.625	3.875	2.25	2.5	2.75	3.0	3.75	2.75	2.875
	2.5	2.0	1.625	3.25	2.75	2.5	2.875	2.0	3.0	3.25	5.375	4.0	1.5	1.375	2.75	2.5	4.00	4.00	3.75
	3.375	3.625	3.0	3.375	3.5	3.0	2.875	2.25	5.0	4.0	4.5	3.0	1.625	1.375	2.25	2.0	3.25	3.00	2.75
	2.875	2.75	3.125	1.875	2.5	2.5	2.5	2.25	3.875	3.0	3.0	2.875	1.5	2.875	2.25	3.625	2.75	3.00	3.375
	2.375	2.375	2.25	2.375	3.375	2.375	3.0	2.125	2.5	3.125	5.375	3.0	1.375	1.75	2.375	2.75	2.875	3.00	1.625
	2.625	2.875	2.375	2.625	2.875	3.5	3.0	2.5	4.75	3.0	3.75	2.875	2.0	2.0	2.5	2.75	4.375	3.375	2.875
	2.375	2.25	2.875	2.5	2.875	2.75	2.625	2.625	3.75	4.375	3.5	3.0	3.0	1.375	1.375	3.375	3.50	4.375	2.50
	2.875	1.875	2.25	2.375	3.25	2.75	3.5	2.5	3.75	3.25	4.375	2.875	2.875	1.75	3.25	2.5	3.00	2.75	2.00
	2.0	1.5	2.625	2.375	2.75	2.75	2.75	1.875	3.75	4.75	2.875	3.5	1.5	2.625	2.125	3.75	4.50	3.00	2.00
	2.75	2.375	1.875	2.5	1.875	2.25	3.0	2.25	3.375	3.0	4.375	4.375	1.25	2.5	2.25	3.375	1.75	3.50	2.875
	3.75	2.0	2.25	2.375	2.375	3.375	3.25	2.625	3.25	4.375	2.875	3.875	1.375	3.0	2.0	1.875	4.00	2.625	2.75
	2.0	2.375	2.0	2.625	2.875	3.25	2.75	1.5	3.125	2.75	3.0	3.75	1.5	2.75	1.125	3.5	3.375	1.50	3.00
	1.75	1.5	2.75	2.75	2.75	2.875	2.75	2.0	4.625	3.75	1.5	3.75	2.375	2.875	2.375	2.875	2.50	2.875	2.125
	2.75	2.25	1.5	2.625	2.5	2.875	2.875	2.5	2.75	4.375	4.25	4.75	9.625	2.5	1.5	2.75	4.25	4.00	2.25
	2.25	3.25	3.0	2.875	2.0	2.5	3.375	2.25	4.5	3.625	4.25	4.375	8.5	2.75	2.25	3.375	3.25	4.00	4.75
	2.375	1.75	2.625	2.875	1.0	3.0	2.25	2.5	3.5	5.0	5.25	3.75	1.375	2.75	2.75	3.875	3.50	3.625	2.625
	1.5	1.75	2.0	1.75	2.875	2.875	2.25	1.5	4.25	4.25	3.25	2.875	1.0	3.0	2.5	2.875	3.25	3.25	3.125
Averages	2.583	2.412	2.353	2.591	3.171	2.819	2.795	2.225	3.758	3.417	3.716	3.470	2.408	2.175	2.429	2.954	3.287	3.212	2.916

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Reduction and recapitulation:															
Maximum measurements.	B¹	3.750	1.4763	B¹	10.00	3.9370	B¹	5.375	1.3287	B¹	9.625	3.7893	B¹	4.50	1.7716
	B²	3.625	1.4271	B²	3.50	1.3779	B²	5.000	1.9685	B²	3.0	1.1811	B²	4.375	1.7224
	B³	3.125	1.2303	B³	3.50	1.3779	B³	4.875	1.9192	B²	3.75	1.4763	B³	4.75	1.8700
	.....	.....	.....	B⁴	2.75	1.0826	B⁴	4.75	1.8700	B⁴	4.0	1.5743	.....	.....	.....
Highest	.....	3.750	1.4763	.....	10.00	3.9370	.....	5.375	1.3287	.....	9.625	3.7893	.....	4.75	1.8700
Minimum measurements.	B¹	1.500	0.5905	B¹	1.875	0.7381	B¹	2.5	0.9842	B¹	1.0	0.3937	B¹	1.50	0.5905
	B²	1.500	0.5905	B²	2.000	0.7874	B²	2.5	0.9842	B²	1.375	0.5413	B²	1.50	0.5905
	B³	1.625	0.6397	B³	2.000	0.7874	B³	1.5	0.5905	B³	1.125	0.4429	B³	1.625	0.6397
	.....	.....	.....	B⁴	1.000	0.3937	B⁴	2.125	0.8366	B⁴	1.75	0.6889	.....	.....	.....
Lowest	.....	1.500	0.5905	.....	1.000	0.3937	.....	1.5	0.5905	.....	1.0	0.3937	.....	1.50	0.5905
Average measurements.	B¹	2.583	1.0169	B¹	3.171	1.2484	B¹	3.758	1.4795	B¹	2.408	0.9480	B¹	3.287	1.2940
	B²	2.412	0.9496	B²	2.819	1.1098	B²	3.417	1.3452	B²	2.175	0.8562	B²	3.212	1.2645
	B³	2.353	0.9263	B³	2.795	1.1003	B³	3.716	1.4629	B³	2.429	0.9562	B³	2.916	1.1480
	B⁴	2.591	1.0200	B⁴	2.225	0.8759	B⁴	3.470	1.3661	B⁴	2.954	1.1629	.....	.....	.....
Averages	.....	2.484	0.9779	.....	2.752	1.0834	.....	3.590	1.4133	.....	2.491	0.9807	.....	3.138	1.2354
Tests above average	.....	61		.....	66		.....	59		.....	62		.....	50	
Tests below average	.....	59		.....	54		.....	61		.....	58		.....	40	

TABLE XXXVII.—*Actual measurements of length and fineness of Angora goat hair*—Continued.

Catalogue number of sample	388.			389.			390.			391.			392.		
Length of fiber	5 inches.			7½ inches.			4½ inches.			7 inches.			5½ inches.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	4.50	4.25	4.625	2.25	4.25	3.50	3.125	2.75	3.375	2.875	4.50	3.375	3.875	4.50	3.75
	3.875	4.50	4.125	3.50	4.00	3.625	2.75	2.875	3.375	3.25	4.00	5.00	2.25	3.75	3.875
	2.875	3.375	3.875	4.75	3.50	3.50	2.375	2.50	3.625	2.25	2.75	1.875	2.25	2.50	3.75
	4.25	3.875	4.00	3.75	4.625	4.25	2.375	2.75	4.125	2.75	4.00	1.375	2.875	2.75	3.375
	2.875	3.75	4.00	4.375	3.50	3.875	2.875	3.50	3.75	3.00	3.75	3.875	3.25	4.50	3.00
	4.875	4.50	5.25	4.75	3.375	3.125	3.25	3.75	4.00	5.75	3.75	3.75	1.50	4.25	3.375
	3.00	3.00	4.00	4.75	3.00	3.75	2.25	2.875	2.50	2.875	3.375	2.625	3.00	3.00	4.75
	3.75	3.50	4.50	4.75	3.375	4.00	4.00	2.75	3.25	4.375	3.50	4.875	4.00	3.375	4.00
	3.25	4.00	4.375	4.875	3.625	3.75	3.75	2.25	2.875	2.75	4.25	4.875	3.875	5.375	3.50
	2.25	3.875	4.00	3.875	3.00	2.375	3.00	2.75	3.125	3.75	3.375	3.25	3.125	4.00	4.00
	2.50	3.625	4.75	4.875	3.25	4.00	2.50	2.50	3.50	5.75	4.75	4.50	3.00	4.375	3.00
	3.00	4.50	4.50	4.00	2.50	3.625	2.50	3.875	3.125	2.625	3.25	4.25	3.125	4.875	3.50
	5.25	3.50	4.625	4.25	3.25	3.25	2.375	2.25	2.375	2.75	4.875	2.00	2.50	4.375	4.875
	4.00	4.75	4.00	4.50	4.125	2.875	2.50	3.75	2.50	2.50	4.75	1.625	3.00	4.00	3.625
	4.00	5.375	4.375	4.00	4.00	3.50	2.625	2.875	2.875	4.50	2.625	5.50	4.00	3.25	3.00
	3.50	3.75	4.25	4.50	3.50	2.875	1.50	2.50	3.875	2.375	3.50	4.00	3.75	3.00	3.00
	3.25	5.00	4.00	4.50	4.00	3.875	3.00	4.00	3.00	3.75	4.00	4.50	2.25	3.50	3.25
	4.875	5.375	4.25	4.125	3.75	3.00	2.50	4.125	2.875	2.75	3.375	4.75	3.75	4.00	3.50
	4.00	3.875	4.50	3.875	4.25	3.00	2.625	3.625	3.625	3.25	2.50	2.375	2.50	5.50	3.375
	4.00	4.75	4.00	4.375	4.25	2.25	3.125	3.375	2.50	2.625	4.50	3.00	4.125	4.25	3.75
	4.75	3.50	3.875	3.875	2.625	2.625	3.00	3.00	3.25	2.375	3.50	2.125	2.50	3.875	4.00
	2.875	4.50	4.375	4.50	3.875	2.50	3.125	3.00	3.50	2.875	3.25	3.625	2.50	4.25	3.375
	3.50	4.375	4.25	4.50	4.00	3.125	2.375	2.375	3.75	2.50	4.375	4.00	3.00	3.375	4.375
	4.50	4.00	3.375	4.75	3.50	3.00	2.625	3.375	3.50	2.50	4.875	2.25	2.375	3.25	3.75
	4.50	5.375	4.375	4.00	4.50	3.75	2.25	2.50	2.875	2.75	3.00	4.25	2.125	4.00	4.00
	3.00	4.375	4.50	4.50	3.875	3.00	3.25	3.75	3.375	4.00	4.75	3.375	3.00	4.00	3.75
	4.50	4.25	4.75	4.125	4.00	1.75	3.875	4.00	2.625	2.75	2.75	3.25	1.875	3.375	3.25
	3.375	5.25	4.25	3.75	3.50	3.25	2.75	3.625	3.25	4.00	4.25	2.75	4.25	2.50	3.75
	4.50	5.125	5.25	4.25	3.00	3.50	2.50	2.875	2.50	3.625	2.75	4.50	3.75	3.25	3.25
	2.875	4.25	3.50	4.50	3.375	3.75	2.50	2.50	3.25	4.75	5.00	5.00	3.125	3.375	4.875
Averages	3.758	4.270	4.216	4.229	3.646	3.275	2.775	3.071	3.204	3.287	3.795	3.550	2.990	3.512	3.687

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Reduction and recapitulation:															
Maximum measurements.	B¹.	5.25	2.0669	B¹.	4.875	1.9192	B¹.	4.00	1.5748	B¹.	5.75	2.2637	B¹.	4.25	1.6732
	B².	5.375	2.1161	B².	4.625	1.8208	B².	4.125	1.6240	B².	5.00	1.9685	B².	5.50	2.1653
	B³.	5.25	2.0669	B³.	4.25	1.6732	B³.	4.125	1.6240	B³.	5.00	1.9685	B³.	4.875	1.9192
Highest		5.375	2.1161		4.875	1.9192		4.125	1.6240		5.75	2.2637		5.50	2.1653
Minimum measurements.	B¹.	2.25	0.8858	B¹.	2.25	0.8858	B¹.	1.50	0.5905	B¹.	2.25	0.8858	B¹.	1.50	0.5905
	B².	3.00	0.1811	B².	2.50	0.9842	B².	2.25	0.8858	B².	2.50	0.9842	B².	2.50	0.9842
	B³.	3.25	0.2795	B³.	1.75	0.6889	B³.	2.375	0.9350	B³.	1.375	0.5413	B³.	3.00	1.1811
Lowest		2.25	0.8858		1.75	0.6889		1.50	0.5905		1.375	0.5413		1.50	0.5905
Average measurements	B¹.	3.758	1.4795	B¹.	4.229	1.6649	B¹.	2.775	1.0925	B¹.	3.287	1.2940	B¹.	2.990	1.1771
	B².	4.270	1.6810	B².	3.646	1.4354	B².	3.071	1.2090	B².	3.795	1.4940	B².	3.512	1.5007
	B³.	4.216	1.6598	B³.	3.275	1.2893	B³.	3.204	1.2614	B³.	3.550	1.3976	B³.	3.687	1.4515
Averages		4.081	1.6166		3.717	1.4633		3.017	1.1877		3.544	1.3952		3.496	1.3763
Tests above average		43			50			39			43			46	
Tests below average		45			40			51			47			44	

TABLE XXXVII.—*Actual measurements of length and fineness of Angora goat hair*—Continued.

Catalogue number of samples	383.			384.			385.			386.			387.		
Length of fiber in crimp	6 inches.			4½ inches.			11½ inches.			6¾ inches.			7 inches.		
Number of section	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.	B¹.	B².	B³.
Actual measurement in centimillimeters.	4.50	4.50	3.375	2.00	2.00	1.75	3.375	4.00	3.25	3.375	2.50	2.00	3.75	2.75	3.125
	4.00	4.00	3.75	2.125	1.75	2.00	2.00	2.625	3.375	3.625	2.375	2.25	3.50	3.00	3.125
	1.50	5.00	4.00	2.50	2.50	2.00	1.75	3.375	2.875	3.00	2.50	2.50	3.25	3.25	2.50
	5.00	4.25	3.75	2.25	2.375	1.50	1.625	3.375	4.50	2.375	2.375	2.00	3.375	2.00	3.75
	4.00	4.25	4.50	2.25	2.375	2.00	3.50	4.25	3.00	2.25	2.875	2.50	2.75	3.375	2.50
	4.50	3.75	4.625	1.625	2.125	2.375	3.00	2.75	3.375	2.75	2.50	1.625	3.50	2.875	3.25
	3.50	3.875	4.00	2.50	2.25	2.00	3.50	4.00	4.625	2.50	2.50	2.75	3.75	3.875	3.75
	4.625	3.25	4.75	2.50	2.50	2.25	3.25	3.00	3.625	2.75	3.25	2.75	3.00	3.25	2.875
	3.50	3.50	3.875	1.875	2.00	1.75	3.00	4.25	4.50	3.50	2.875	2.00	2.375	3.125	3.00
	4.50	4.25	4.50	2.00	1.875	2.00	2.875	3.375	4.00	3.00	3.125	3.25	2.75	3.375	3.875
	4.00	4.125	4.375	2.00	2.25	2.25	3.00	3.25	4.25	2.875	3.25	2.50	3.50	2.75	1.75
	4.25	3.875	4.00	2.125	2.75	2.00	3.75	3.50	3.125	3.25	4.00	2.25	3.00	3.375	3.00
	4.00	3.625	4.50	1.75	2.375	2.25	4.00	3.50	4.50	3.125	3.125	1.875	3.50	3.75	2.875
	4.25	3.625	4.00	2.00	2.50	2.375	3.375	3.50	4.375	1.75	2.125	2.875	2.25	4.375	3.375
	3.25	4.375	5.25	2.00	2.75	2.00	2.875	3.375	4.00	2.00	3.00	2.625	2.50	3.50	3.25
	4.375	3.50	5.25	2.75	2.125	2.375	1.875	4.25	4.375	3.75	2.50	2.00	3.25	3.625	2.875
	4.875	3.375	3.75	2.50	2.00	2.50	3.00	3.00	3.375	2.875	2.875	3.00	3.25	3.00	3.25
	3.75	4.375	4.50	2.125	2.00	2.25	1.875	4.00	4.375	3.375	2.50	2.625	2.125	2.875	3.25
	4.375	4.50	4.00	1.75	2.50	1.875	2.25	2.625	3.50	3.25	2.50	3.00	3.875	2.875	3.50
	4.125	4.25	4.375	2.00	2.625	2.125	3.25	3.00	2.625	3.125	3.125	2.50	2.50	2.875	3.50
	3.00	3.25	4.75	2.00	2.00	2.50	2.00	3.875	3.75	3.125	3.25	1.875	2.25	4.375	2.50
	4.875	4.25	5.00	1.75	2.875	1.625	3.50	4.00	3.375	2.75	2.75	2.25	3.375	3.50	3.625
	3.50	4.375	2.875	2.125	2.50	2.00	1.625	3.75	2.75	3.375	3.625	2.50	2.50	3.375	3.150
	4.375	3.875	4.00	2.00	2.25	2.00	2.875	3.75	3.875	3.50	2.50	2.00	2.75	3.50	3.50
	4.25	5.375	3.25	2.375	2.25	2.00	1.75	3.25	5.00	2.50	2.50	2.50	2.625	2.50	3.50
	3.125	3.75	4.125	1.875	1.625	2.00	1.875	3.75	5.00	2.50	3.00	2.375	3.00	4.375	2.625
	4.75	4.375	4.00	2.875	1.75	2.50	3.00	3.00	5.375	2.625	2.25	2.875	3.375	4.00	2.875
	4.25	3.75	4.50	2.125	2.00	2.25	4.25	2.75	4.625	2.50	2.25	2.50	2.00	3.75	3.25
	3.875	4.375	2.875	2.25	2.00	2.50	5.50	2.50	4.50	3.00	3.375	2.125	3.75	3.875	2.25
	3.875	3.25	4.50	1.50	3.00	2.00	3.75	2.50	2.75	2.50	3.875	2.875	2.75	2.25	3.50
Averages	3.991	4.034	4.178	2.116	2.262	2.100	2.908	3.404	3.554	2.912	2.841	2.428	3.004	3.305	3.120

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements	B¹	5.00	1.9685	B¹	2.875	1.1318	B¹	5.50	2.1653	B¹	3.75	1.4763	B¹	3.75	1.4763
	B²	5.375	2.1161	B²	2.875	1.1318	B²	4.25	1.6732	B²	4.00	1.5748	B²	4.375	1.7224
	B³	5.25	2.0669	B³	2.50	0.9842	B³	5.375	2.1161	B³	3.25	1.2795	B³	3.875	1.5255
Highest	.....	5.375	2.1161	.....	2.875	1.1318	.....	5.50	2.1653	.....	4.00	1.5748	.....	4.375	1.7224
Minimum measurements	B¹	1.50	0.5905	B¹	1.50	0.5905	B¹	1.625	0.6397	B¹	1.75	0.6889	B¹	2.00	0.7874
	B²	3.25	1.2795	B²	1.625	0.6397	B²	2.50	0.9842	B²	2.25	0.8858	B²	2.00	0.7874
	B³	2.875	1.1318	B³	1.50	0.5905	B³	2.625	1.0334	B³	1.625	0.6397	B³	1.75	0.6889
Lowest	.....	1.50	0.5905	.....	1.50	0.5905	.....	1.625	0.6397	.....	1.625	0.6397	.....	1.75	0.6889
Average measurements	B¹	3.991	1.5712	B¹	2.116	0.8330	B¹	2.908	1.1448	B¹	2.912	1.1464	B¹	3.004	1.1826
	B²	4.034	1.5881	B²	2.262	0.8905	B²	3.404	1.3401	B²	2.841	1.1185	B²	3.305	1.3011
	B³	4.178	1.6448	B³	2.100	0.8267	B³	3.554	1.3992	B³	2.428	0.9559	B³	3.120	1.2283
Averages	.....	4.068	1.6015	.....	2.159	0.8499	.....	3.289	1.2948	.....	2.727	1.0736	.....	3.143	1.2373
Measurements above average	.....	46		.....	39		.....	51		.....	44		.....	48	
Measurements below average	.....	44		.....	51		.....	39		.....	46		.....	42	

TABLE XXXVIII.—*Extremes and averages of fineness of Angora goat hair.*

ANGORA GOAT HAIR.

Catalogue number of samples.	HIGHEST.		LOWEST.		AVERAGE.		LENGTH.
	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In inches.
194	3.75	1.4763	1.50	0.5905	2.484	0.9779	9.00
195	10.00	3.9370	1.00	0.3937	2.752	1.0834	5.50
196	5.375	1.3287	1.50	0.5905	3.580	1.4133	9.00
197	9.625	3.7893	1.00	0.3937	2.491	0.9807	9.50
382	4.750	1.8700	1.50	0.5905	3.138	1.2354	7.50
383	5.375	2.1161	1.50	0.5905	4.068	1.6015	6.00
384	2.875	1.1318	1.50	0.5905	2.159	0.8499	4.50
385	5.500	2.1653	1.625	0.6397	3.289	1.2948	11.00
386	4.000	1.5748	1.625	0.6397	2.727	1.0736	6.25
387	4.375	1.7224	1.75	0.6889	3.143	1.2373	7.00
388	5.375	2.1161	2.25	0.8858	4.081	1.6066	5.00
389	4.875	1.9192	1.75	0.6889	3.747	1.4033	7.50
390	4.125	1.6240	1.50	0.5905	3.017	1.1877	4.50
391	5.75	2.2637	1.375	0.5413	3.544	1.3952	7.00
Averages	5.411	2.1303	1.527	0.6011	3.137	1.2429	6.91

CASHMERE GOAT.

392	5.50	2.1653	1.50	0.5905	3.496	1.3763	5.50
393	5.75	2.2637	1.375	0.5413	3.544	1.3952	7.50
Averages	5.625	2.2145	1.4375	0.5657	3.520	1.3858	6.50

TABLE XXXIX.—*Results of tests of strain and stretch of Angora goat hair.*

Catalogue number of samples..	194.				195.				196.				197.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	16.00	14.00	5.00	7.00	10.50	4.50	14.50	17.00	5.50	2.00	28.50	16.00	14.00	16.00	14.50	15.50
	5.50	4.00	14.50	15.00	18.00	17.00	25.50	17.50	19.50	15.50	13.00	3.50	7.50	14.00	14.50	4.00
	13.50	15.00	5.50	3.00	27.50	16.00	10.00	6.00	27.50	15.00	30.00	13.50	15.50	15.00	8.50	12.50
	19.00	15.50	6.50	8.00	18.50	17.00	25.50	15.00	15.00	12.00	33.50	16.00	14.00	12.50	12.50	5.00
	9.00	5.00	10.50	13.00	9.50	4.00	14.50	12.50	31.50	17.00	11.00	4.00	12.00	13.00	17.00	12.50
	11.00	14.00	8.00	12.00	17.50	16.00	9.00	12.00	30.00	13.50	22.50	13.50	15.50	14.00	18.50	14.50
	10.50	15.00	13.00	14.00	11.50	8.50	16.00	9.00	20.50	15.50	23.00	14.00	8.50	4.50	17.00	13.50
	16.50	14.00	15.00	14.50	10.50	4.00	14.50	11.50	5.00	3.00	9.00	3.00	17.50	14.00	10.50	7.00
	7.50	9.00	13.00	15.00	23.00	16.50	24.50	17.00	12.00	6.50	21.00	6.00	12.50	13.00	17.00	15.00
	7.00	8.00	6.50	14.00	25.50	17.00	9.50	5.00	14.00	14.00	20.50	15.00	13.00	11.00	15.50	14.00
	5.50	3.00	9.00	13.00	19.50	17.00	19.50	17.00	7.00	2.50	10.00	3.50	10.50	14.00	12.50	11.00
	10.50	14.00	11.00	14.50	29.50	15.50	21.00	15.00	23.00	13.00	14.00	13.00	9.00	7.50	17.50	15.00
	12.00	13.00	6.50	5.00	6.50	11.00	15.50	11.50	24.00	12.50	35.00	13.50	15.00	13.00	11.50	10.50
	7.50	3.50	13.50	13.00	16.00	12.00	16.50	10.00	21.50	17.00	32.50	16.00	11.50	6.00	13.00	13.00
	9.00	6.00	14.00	13.00	21.00	14.00	18.50	16.00	31.50	14.50	14.50	9.00	13.50	13.00	11.50	9.00
Total	160.00	153.00	151.50	174.00	264.50	190.00	254.50	192.00	287.50	173.50	318.00	159.50	189.50	180.50	211.50	172.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	19.00	293.26	15.50	38.75	29.50	454.32	17.50	43.75	35.00	540.21	17.00	42.50	18.50	285.54	16.00	40.00
Lowest	5.00	77.17	3.00	7.50	6.50	100.33	4.00	10.00	5.00	77.17	2.00	5.00	7.50	115.76	4.00	10.00
Average	10.38	160.21	10.90	27.25	17.30	267.02	12.73	31.83	20.18	311.47	11.10	27.75	13.37	206.36	11.75	29.38
Tests above average	15		18		16		16		17		20		15		20	
Tests below average	15		12		14		14		13		10		15		10	

Catalogue number of samples..	382.				383.				384.				385.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	14.25	4.50	17.75	6.50	14.75	4.50	36.25	13.50	12.75	11.00	14.25	15.00	14.25	7.50	15.50	4.50
	8.00	5.00	27.25	14.00	15.00	5.00	22.75	6.00	16.50	16.00	11.50	10.50	23.50	11.00	19.75	7.00
	9.50	4.00	8.50	4.50	20.25	6.50	17.75	3.50	14.00	13.50	11.75	11.00	17.75	7.50	17.25	9.50
	18.75	13.50	27.25	13.50	24.00	10.50	26.50	3.00	16.50	15.00	9.75	12.00	14.00	5.50	26.00	10.50
	22.25	14.50	17.00	14.00	31.75	14.50	19.75	11.50	11.00	5.50	10.00	10.00	14.25	6.00	14.50	9.00
	30.50	14.00	14.25	6.00	32.50	11.50	22.50	10.00	15.25	12.00	17.50	15.00	30.25	13.50	14.75	6.50
	28.75	14.50	17.50	9.50	17.25	4.50	26.25	10.50	13.50	4.50	18.25	14.50	24.50	10.00	19.50	13.00
	16.50	13.00	13.00	4.50	35.25	14.00	5.75	2.50	14.75	11.50	15.00	12.00	24.25	10.50	12.75	7.00
	25.75	14.00	19.00	7.50	40.25	13.50	28.75	9.00	13.00	6.50	13.25	13.00	25.50	13.00	28.75	15.00
	25.00	14.50	22.25	9.00	28.00	11.25	24.50	7.50	10.25	5.00	12.00	11.00	38.00	14.50	21.75	13.50
	16.50	4.50	23.00	14.00	19.50	4.00	22.50	6.00	11.75	12.00	11.75	9.50	19.25	7.00	12.00	8.50
	13.00	12.00	19.25	11.50	20.00	5.00	26.50	16.00	17.50	14.00	8.25	4.00	25.75	8.50	17.75	14.00
	23.50	14.00	16.75	14.00	14.75	4.50	26.00	11.00	17.75	16.00	10.50	5.50	21.25	10.50	15.50	6.00
	23.00	11.50	18.00	13.50	24.25	11.50	37.50	13.00	13.25	12.50	14.50	12.50	14.50	7.00	19.75	7.50
	10.25	3.00	24.00	12.50	23.50	13.50	28.75	7.50	10.25	11.00	11.50	13.00	26.00	13.50	15.00	9.00
Total	285.50	156.50	284.75	154.50	361.00	134.25	372.00	124.50	208.00	166.00	189.70	168.50	333.00	145.50	270.50	140.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	30.50	470.76	14.50	36.25	40.25	621.24	14.50	36.25	18.25	281.68	16.00	40.00	38.00	586.52	15.00	37.50
Lowest	8.00	123.48	3.00	7.50	5.75	88.75	2.50	6.25	8.25	127.34	4.00	10.00	12.00	185.22	4.50	11.25
Average	19.00	293.26	10.37	25.95	24.43	377.07	8.63	21.58	13.26	204.66	11.15	27.88	20.12	310.34	9.53	23.83
Tests above average	12		18		14		17		15		17		12		13	
Tests below average	17		12		11		13		15		13		18		17	

TABLE XXXIX.—*Results of tests of strain and stretch of Angora goat hair*—Continued.

Catalogue number of samples..	386.				387.				388.				389.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	11.50	11.00	[illegible]	[illegible]	18.00	10.50	14.75	7.50	35.50	9.50	15.75	13.50	25.50	8.00	23.75	3.50
	13.25	10.50	21.00	15.00	16.50	11.00	17.25	13.00	42.50	15.00	29.50	[illegible]	23.00	6.00	25.50	5.00
	7.50	4.00	20.50	13.50	[illegible]	14.00	11.75	[illegible]	51.75	14.70	23.00	[illegible]	19.25	[illegible]	20.75	3.50
	7.00	8.00	13.75	12.00	19.25	11.50	15.25	13.50	48.75	9.50	28.00	10.00	21.75	[illegible]	26.00	7.00
	10.50	5.50	17.50	13.00	19.75	12.00	[illegible]	13.00	44.50	14.50	24.50	9.50	19.00	4.50	24.75	5.00
	22.25	14.50	13.25	14.00	[illegible]	15.00	15.75	14.50	32.00	12.00	[illegible]	13.50	26.00	5.00	12.50	4.00
	16.00	11.00	12.75	13.00	12.00	8.75	[illegible]	14.00	42.25	14.00	28.00	12.00	21.50	4.00	20.75	[illegible]
	10.50	12.00	9.50	[illegible]	[illegible]	15.50	19.00	12.50	50.25	15.50	50.25	14.00	24.25	3.50	15.50	[illegible]
	9.75	6.50	7.50	14.00	27.75	14.00	22.50	[illegible]	38.50	13.50	34.50	11.50	[illegible]	[illegible]	29.50	10.00
	8.00	5.00	18.25	13.00	15.75	14.50	20.25	9.00	21.75	12.00	[illegible]	9.50	18.00	2.50	15.50	3.50
	14.25	6.50	15.50	10.00	16.25	9.50	23.50	13.00	36.75	[illegible]	23.25	12.00	20.00	5.00	29.75	[illegible]
	7.75	[illegible]	[illegible]	9.00	15.50	11.00	9.50	13.50	35.50	13.00	21.00	7.50	[illegible]	8.50	31.00	[illegible]
	14.25	9.00	19.00	14.50	11.25	4.50	16.50	2.00	24.25	13.00	44.25	16.00	26.00	[illegible]	20.25	11.00
	17.50	15.00	13.25	13.00	30.75	5.00	25.00	13.50	43.00	15.00	33.75	14.00	20.50	[illegible]	15.50	4.00
	17.00	13.50	22.00	[illegible]	21.00	12.50	28.75	17.50	23.00	9.00	25.00	[illegible]	[illegible]	7.50	25.00	4.50
Total	184.00	149.00	227.50	190.00	276.00	167.25	275.25	169.00	544.75	193.50	[illegible]	166.50	326.75	71.50	336.00	91.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	22.25	343.42	16.50	41.25	30.75	474.61	17.50	43.75	50.25	775.50	16.00	40.00	31.00	478.47	12.50	31.25
Lowest	7.00	108.04	4.00	10.00	9.50	146.63	2.00	5.00	15.75	243.10	6.50	16.25	10.25	158.21	1.50	3.75
Average	13.72	211.76	11.00	27.50	[illegible]	283.49	11.21	28.03	33.28	513.66	12.00	30.00	[illegible]	340.95	5.43	[illegible]
Tests above average	13		20		15		17		14		19		[illegible]		10	
Tests below average	17		10		15		13		16		11		14		20	

Catalogue number of samples..	390.				391.				392.				393.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	25.25	16.00	16.25	11.50	20.00	[illegible]	35.75	13.00	29.25	[illegible]	27.00	12.00	51.50	14.00	24.75	12.00
	10.00	[illegible]	19.00	16.50	19.75	12.50	27.50	10.50	30.50	18.00	21.50	7.50	29.75	13.00	28.75	12.50
	17.50	15.00	10.50	9.00	31.50	13.00	18.25	13.00	20.75	8.50	27.75	13.50	50.25	[illegible]	55.00	[illegible]
	14.75	11.00	15.75	15.00	[illegible]	9.00	[illegible]	13.50	22.50	7.50	[illegible]	14.00	54.00	3.50	48.25	5.00
	11.50	[illegible]	16.50	13.50	25.25	[illegible]	14.50	12.00	32.75	14.50	28.50	15.00	[illegible]	[illegible]	23.00	4.50
	[illegible]	15.00	16.50	[illegible]	18.75	[illegible]	20.00	12.50	14.25	4.00	18.00	7.50	51.00	14.50	33.00	11.50
	27.00	14.00	[illegible]	[illegible]	24.75	13.00	[illegible]	13.00	30.50	15.00	25.50	9.00	32.50	6.00	[illegible]	13.00
	[illegible]	61.50	11.50	11.00	24.00	[illegible]	26.50	11.50	14.25	4.50	21.75	7.50	34.25	5.00	[illegible]	15.00
	11.50	6.00	27.25	15.50	27.25	[illegible]	18.50	[illegible]	25.50	10.00	22.50	[illegible]	52.00	12.00	[illegible]	[illegible]
	19.75	[illegible]	17.00	14.50	31.50	12.50	37.00	14.00	[illegible]	11.50	29.75	13.00	56.25	12.50	60.50	14.50
	16.50	12.00	18.25	[illegible]	38.75	15.50	19.25	[illegible]	15.50	[illegible]	[illegible]	4.50	48.00	[illegible]	33.00	15.00
	18.00	11.50	26.75	17.00	19.50	12.50	23.25	12.50	24.75	[illegible]	21.50	13.00	[illegible]	13.00	26.25	11.00
	19.25	[illegible]	11.50	6.00	33.50	[illegible]	26.75	13.50	22.00	14.00	24.75	[illegible]	17.75	[illegible]	39.50	12.50
	17.00	11.50	18.00	16.50	17.00	[illegible]	32.00	10.00	23.75	12.50	22.25	13.50	56.50	[illegible]	52.00	[illegible]
	14.25	[illegible]	16.50	13.00	22.25	11.00	24.75	12.50	17.50	5.50	22.75	14.00	42.00	10.50	37.25	10.50
Total	249.50	169.00	253.75	183.50	379.75	159.00	382.75	178.50	344.75	149.50	354.25	169.00	670.75	160.00	581.25	179.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	27.25	420.59	17.00	42.50	38.75	[illegible]	38.75	38.75	35.50	547.93	18.00	45.00	60.50	[illegible]	16.00	40.00
Lowest	9.25	142.77	4.50	11.25	14.50	[illegible]	3.50	8.75	9.50	146.63	4.00	[illegible]	17.75	273.96	2.50	[illegible]
Average	16.78	258.99	11.75	29.38	25.42	392.35	11.25	28.13	23.30	359.63	[illegible]	26.55	41.73	644.09	11.30	28.25
Tests above average	13		14		14		19		14		15		16		20	
Tests below average	17		16		16		11		16		15		14		10	

TABLE XL.—*Extremes and averages of tests of strain and stretch of Angora goat hair.*

ANGORA GOAT HAIR.

Catalogue number of samples.	STRAIN.						STRETCH.					
	Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
	grams.	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per ct.*	*mm.*	*per ct.*	*mm.*	*per ct.*
194	19.00	293.26	5.00	77.17	10.38	160.21	15.50	38.75	3.00	7.50	10.90	27.25
195	29.50	454.32	6.50	10.33	17.30	267.02	17.50	43.75	4.00	10.00	12.73	31.83
196	35.00	540.21	5.00	77.17	20.18	311.47	17.00	42.50	2.00	5.00	11.10	37.76
197	18.50	285.54	7.50	115.76	13.37	206.36	16.00	40.00	4.00	10.00	11.75	29.38
382	30.50	470.76	8.00	123.48	19.00	293.26	14.50	36.25	3.60	7.50	10.37	20.93
383	40.25	621.24	5.75	88.75	24.43	377.07	14.50	36.25	2.50	6.25	8.36	21.58
384	18.25	281.68	8.25	127.34	13.26	204.66	16.00	40.00	4.00	10.00	11.15	27.88
385	38.00	586.52	12.00	185.22	20.12	310.54	15.00	37.50	4.50	11.25	9.53	23.83
386	22.25	343.42	7.00	108.04	13.72	211.76	16.50	41.25	4.00	10.00	11.00	27.50
387	30.75	474.61	9.50	146.63	18.38	283.69	17.50	43.75	2.00	5.00	11.21	28.03
388	50.25	775.59	15.75	243.10	33.25	513.66	16.00	40.00	6.50	16.25	12.00	30.00
389	31.00	478.47	10.25	158.21	22.09	340.95	12.50	31.25	1.50	3.75	5.43	13.58
390	27.25	420.59	9.25	142.77	16.78	258.99	17.00	42.50	4.50	11.25	11.75	29.38
391	38.75	598.09	14.50	223.80	25.42	392.35	15.50	38.75	3.50	8.75	11.25	28.13
Averages	30.66	473.23	8.88	137.06	19.12	295.11	15.79	39.48	3.50	8.75	10.60	26.50

CASHMERE GOAT.

392	35.50	547.93	9.50	146.63	23.30	359.63	18.00	45.00	4.00	10.00	10.62	26.55
393	60.50	933.79	17.75	273.96	41.73	644.09	16.00	40.00	2.50	6.25	11.30	28.25
Averages	48.00	740.86	13.63	210.37	32.52	501.93	17.00	42.50	3.25	8.13	10.93	27.40

TABLE XLI.—*General extremes and averages for length, fineness, strain, and stretch of Angora goat hair.*

ANGORA GOAT HAIR.

Catalogue number of samples.	Length in inches.	FINENESS.		STRAIN.		STRETCH.	
		In centimillimeters.	In thousandths of inch.	In grams.	In grains.	In millimeters.	In per cent.
194	6.00	2.484	0.9779	10.38	160.21	10.90	27.25
195	3.50	2.732	1.0754	17.30	267.02	12.73	31.83
196	8.00	3.500	1.4133	20.18	311.47	11.10	37.76
197	9.50	2.491	0.9807	13.37	206.36	11.75	29.38
382	7.50	3.138	1.2354	19.00	293.26	10.37	20.90
383	6.00	4.068	1.6015	24.43	377.07	8.30	21.58
384	4.50	2.159	0.8499	13.26	204.60	11.15	27.88
385	11.50	3.289	1.2948	20.12	310.54	9.53	23.83
386	6.25	2.727	1.0736	13.72	211.76	11.00	27.50
387	7.00	3.143	1.2373	18.38	283.69	11.21	28.03
388	3.00	4.201	1.6535	33.25	513.66	12.00	30.00
389	7.50	3.717	1.4633	22.09	340.95	5.43	13.58
390	4.50	3.017	1.1877	16.78	258.99	11.75	29.38
391	7.00	3.544	1.3952	25.42	392.35	11.25	28.13
Averages	6.91	3.157	1.2429	19.12	295.11	10.60	26.50

CASHMERE GOAT.

392	5.50	3.496	1.3762	23.30	359.63	10.62	26.55
393	7.50	3.544	1.3952	41.73	644.09	11.30	28.25
Averages	6.50	3.520	1.3858	32.52	501.93	10.96	27.40

TABLE XLII.—*Measurements of fineness of raw silks.*

Catalogue No. of samples ..	374.	375.	376.	377.	378.	378.	379.	380.	381.
	Yellow Japanese, mulberry.	Yellow Japanese, Osage Orange.	Riley's Yellow Japanese, Osage Orange, 11 years.	Riley's White Japanese, Osage Orange, 11 years.	Fasnach's Black Thibet (yellow).	Fasnach's Black Thibet (white).	Crozier's French from Cévennes.	Crozier's French Black, larvæ white.	Crozier's French Black, worms dark.
Actual measurements in centimillimeters.	3.00	2.625	3.25	2.375	2.125	2.00	2.50	3.50	2.75
	2.50	3.50	2.625	2.50	2.50	2.50	2.50	2.75	2.00
	3.50	4.625	2.75	2.00	2.50	3.00	3.125	3.00	2.00
	3.75	2.50	2.875	2.75	2.50	2.75	2.00	3.00	2.50
	2.875	2.625	2.75	2.00	2.375	2.625	3.125	3.25	2.50
	3.75	2.50	3.50	2.50	2.25	2.25	3.00	2.625	3.00
	3.75	2.875	2.75	2.75	2.375	2.50	3.00	2.50	2.50
	3.875	3.875	3.25	2.50	2.50	2.25	2.75	3.00	2.625
	3.50	3.25	2.75	2.50	2.25	3.00	2.125	3.00	2.375
	2.625	2.75	3.25	2.25	2.50	2.50	2.750	3.25	2.50
	2.875	2.75	2.50	2.75	2.50	2.50	2.125	3.50	2.375
	3.00	2.625	3.00	2.875	2.25	3.00	3.50	3.375	3.50
	3.50	3.00	3.00	2.625	1.875	2.25	2.75	2.50	2.00
	2.50	3.00	3.00	2.125	2.125	2.375	2.25	2.875	2.50
	3.50	3.25	3.00	2.375	2.75	2.00	2.875	2.75	2.50
	2.375	3.00	2.625	2.75	2.50	2.50	3.00	3.50	2.25
	3.75	2.25	2.50	3.00	2.50	2.00	2.25	3.00	2.625
	2.75	2.625	2.375	2.375	2.00	2.50	3.00	3.25	2.375
	3.00	2.875	2.625	2.75	2.75	2.50	2.75	2.50	2.75
	2.50	2.25	2.50	2.25	2.25	2.25	2.375	2.75	2.50
	3.125	2.75	2.50	2.75	2.875	2.50	2.50	3.50	2.00
	3.25	3.00	2.75	2.75	2.50	2.125	2.50	3.50	2.50
	2.50	2.75	2.75	2.50	2.375	3.00	3.25	3.00	2.50
	3.125	2.625	2.50	2.75	2.50	3.25	3.375	3.25	2.25
	2.625	2.875	3.00	2.25	2.25	2.375	3.00	2.875	2.25
	3.375	3.25	2.125	2.125	2.50	2.75	3.00	3.25	2.50
	2.875	3.00	2.375	2.625	2.50	2.50	2.625	3.00	2.50
	3.50	3.00	3.00	2.75	2.375	3.00	2.75	3.00	2.75
	2.375	2.50	2.75	2.375	2.50	2.25	3.50	2.875	2.375
	3.50	2.75	2.625	2.625	2.75	2.50	2.875	3.00	2.50
	2.75	2.50	2.875	2.50	2.50	2.50	3.25	2.75	2.50
	3.25	2.75	2.125	2.75	3.25	2.125	2.875	2.875	2.00
	2.625	2.50	3.00	2.625	3.00	2.125	2.50	2.75	3.00
	3.00	3.00	2.75	2.75	1.875	1.875	2.50	4.25	2.25
	2.625	2.875	2.50	2.50	1.75	2.75	2.875	3.25	2.00
	3.125	3.00	2.50	2.375	2.75	2.25	3.25	2.50	3.25
	2.75	2.875	2.50	2.50	2.375	2.50	2.75	3.125	2.25
	2.875	2.75	3.00	2.50	2.75	2.75	3.50	2.75	2.25
	3.00	2.625	2.25	2.25	2.625	2.375	2.875	2.25	2.75
	2.00	2.75	2.75	3.25	2.375	2.25	3.25	2.75	2.50
	3.375	2.375	3.25	2.625	2.50	2.50	3.50	3.50	2.25
	3.25	3.125	2.875	2.00	2.75	3.25	3.00	3.25	2.625
	3.50	3.25	3.25	2.50	2.875	2.75	3.50	3.00	2.75
	2.50	2.25	2.75	2.125	2.25	3.125	3.00	2.75	3.00
	2.75	3.375	3.00	2.625	3.00	3.00	3.00	3.00	2.25
	3.00	2.625	2.50	2.50	2.75	2.25	2.50	3.50	2.375
	3.25	3.25	3.00	2.75	2.625	2.25	3.00	2.75	3.00
	3.00	2.75	2.50	2.375	2.50	2.75	2.50	3.125	2.50
	2.25	2.75	2.50	2.50	2.00	3.00	2.50	3.25	2.25
	2.75	3.25	2.75	2.375	2.25	2.50	2.75	3.375	2.25
Averages	3.015	2.878	2.748	2.513	2.465	2.528	2.86	3.038	2.485

	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.
Recapitulation:																
Highest	3.875	1.5255	4.625	1.8208	3.50	1.3779	3.25	1.2735	3.25	1.2735	3.25	1.2735	3.50	1.3779	4.25	1.6732	3.50	1.3779
Lowest	2.00	0.7874	2.25	0.8858	2.125	0.8366	2.00	0.7874	1.75	0.6889	1.875	0.7380	2.00	0.7874	2.25	0.8858	2.00	0.7874
Average	3.015	1.1870	2.878	1.1330	2.748	1.0818	2.513	0.9893	2.465	0.9704	2.528	0.9952	2.86	1.1259	3.038	1.1960	2.485	0.9783
Measurements above average	21		19		30		21		30		17		27		20		29	
Measurements below average	29		31		20		29		20		33		23		30		21	

TABLE XLII.—*Results of tests of strain and stretch for raw silks.*

Catalogue No. of samples ..	374. DRY.				374. WET.				375. DRY.				375. WET.				376 DRY.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	gms.	mm.	gms.	mm.	gms.	mm.	gms.	mm.	gms.	mm.	gms.	mm.	gms.	mm.	gms.	mm.	gms.	mm.	gms.	mm.
Actual measurement in grams and millimeters.	2.75	3.25	10.50	2.50	10.25	2.00	10.00	3.25	3.00	3.75	11.75	4.50	10.75	1.50	16.00	3.50	2.50	4.00	4.00	2.75
	3.75	3.00	10.25	3.00	10.50	3.00	14.00	1.75	3.75	2.75	12.50	5.25	12.50	1.50	14.25	2.00	2.75	3.50	5.50	1.00	
	3.50	3.75	11.25	3.75	10.00	2.75	11.00	1.75	2.50	3.25	11.50	4.25	15.00	2.25	12.50	1.25	2.00	3.75	6.25	2.25	
	2.75	2.00	11.75	4.75	11.25	2.25	10.00	3.00	4.25	4.00	11.25	4.25	13.50	3.25	14.00	2.25	2.75	3.00	5.25	2.25	
	4.50	2.25	8.75	3.25	10.50	3.75	11.75	3.50	3.00	3.00	11.00	4.00	14.25	2.75	13.75	3.75	2.50	3.25	6.25	1.50	
	9.00	2.00	9.75	3.75	10.00	4.00	11.75	3.50	5.25	4.00	11.00	5.00	12.50	2.50	12.25	2.75	2.00	3.50	5.75	3.75	
	11.25	1.75	8.50	3.00	10.50	2.00	10.00	2.25	10.50	2.25	11.50	4.75	10.50	1.25	14.00	4.00	9.25	3.00	4.00	3.25	
	10.50	4.25	8.25	2.50	12.75	3.50	12.50	3.25	11.00	3.00	11.25	4.25	15.50	4.50	10.75	3.00	3.00	2.00	3.50	3.50	
	11.25	3.75	8.00	3.00	12.25	2.00	13.50	3.50	5.25	4.75	11.50	4.50	11.00	3.75	11.75	3.00	0.75	3.00	4.50	1.75	
	8.75	2.50	8.25	3.25	12.25	1.25	11.00	3.25	8.00	3.25	10.75	5.00	10.00	2.25	10.75	1.75	10.00	4.00	5.25	1.75	
	13.00	2.00	6.00	1.50	11.50	3.75	12.00	4.00	11.00	3.75	4.25	4.00	12.00	3.00	11.00	3.25	10.00	2.75	3.25	1.75	
	9.25	3.00	8.00	2.50	11.75	4.75	12.50	4.75	11.00	3.75	4.25	5.00	11.50	3.00	11.25	3.25	10.25	3.75	5.25	1.75	
	12.00	2.25	5.50	1.75	10.00	2.25	10.00	2.25	11.25	3.00	4.00	4.25	10.50	2.00	12.75	1.25	10.50	2.00	5.00	1.75	
	10.00	3.00	6.25	2.25	11.00	3.25	12.50	3.25	11.00	3.75	3.50	2.50	10.50	1.25	12.00	1.75	8.75	3.50	4.50	1.25	
	12.00	4.75	6.25	2.00	11.00	3.25	11.25	3.75	11.50	4.75	3.25	2.75	12.50	1.25	12.25	1.25	9.00	3.00	3.25	1.00	
Averages	124.25	42.50	126.50	42.75	170.00	43.75	172.75	47.00	114.25	53.00	133.25	64.25	182.50	36.00	189.25	37.25	135.00	49.50	67.50	32.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	gms.	grs.	mm.	P. ct.	gms.	grs.	mm.	P. ct.	gms.	grs.	mm.	P. ct.	gms.	grs.	mm.	P. ct.	gms.	grs.	mm.	P. ct.
Highest	13.00	200.65	4.75	23.75	14.00	216.06	4.75	23.75	12.50	192.93	5.25	26.25	16.00	246.95	4.50	22.50	10.50	162.06	5.00	25.00
Lowest	2.75	42.44	1.50	7.50	10.00	154.35	1.25	6.25	2.50	38.59	2.25	11.25	10.00	154.35	1.25	6.25	2.00	30.87	1.00	5.00
Average	8.36	129.03	2.84	14.21	11.43	176.42	3.03	15.15	8.25	127.34	3.91	19.55	12.39	191.23	2.44	12.20	5.78	89.21	2.74	13.70
Tests above average	16		15		14		13		17		17		14		15		12		17	
Tests below average	14		15		16		17		13		13		16		15		18		13	

Catalogue No. of samples ..	376. WET.				377. DRY.				377. WET.				378. DRY YELLOW, SPLIT FIBERS.				378. DRY WHITE, SPLIT FIBERS.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	gms.	mm.	gms.	mm.	gms.	mm.	gms.	mm.	gms.	mm.	gms.	mm.	gms.	mm.	gms.	mm.	gms.	mm.	gms.	mm.
Actual measurement in grams and millimeters.	9.25	2.25	10.50	2.25	2.50	1.00	3.50	3.25	10.25	3.50	12.25	3.75	5.50	3.75	4.50	3.25	4.50	3.25	4.00	1.50
	12.25	1.75	11.00	3.00	3.50	2.75	3.50	2.75	3.00	1.75	11.00	3.00	5.00	3.25	4.00	3.75	4.25	2.75	3.25	1.75
	8.00	1.75	9.75	1.50	2.75	3.75	3.75	3.50	8.50	3.00	9.25	2.25	4.50	1.25	4.00	4.00	3.00	1.00	5.25	3.25
	10.75	3.00	9.75	1.00	3.25	3.00	3.00	2.50	9.75	4.00	10.25	2.25	5.50	2.75	4.50	2.75	3.00	1.00	3.50	1.25
	10.00	3.25	5.00	1.75	4.00	4.00	3.00	2.75	9.00	2.25	9.25	4.25	6.00	1.25	4.50	3.00	3.25	1.50	3.00	3.00
	7.75	1.25	3.25	2.25	3.00	3.50	7.00	3.00	8.00	2.50	8.00	2.75	4.00	3.75	4.25	5.00	4.50	4.75	6.50	2.00
	11.50	1.75	11.00	1.75	11.00	5.00	6.00	2.00	9.25	2.25	8.25	1.50	4.00	2.75	5.00	4.50	4.00	2.75	4.75	1.00
	10.75	1.50	10.25	1.25	10.00	3.75	9.00	1.50	9.75	3.25	10.75	4.75	5.00	3.25	4.00	4.50	3.25	1.50	5.50	2.00
	5.00	1.25	7.75	1.00	11.75	1.75	8.00	3.25	9.00	3.00	9.00	3.75	5.00	4.75	4.00	3.25	4.50	3.75	3.50	2.25
	10.25	2.50	10.25	2.00	11.00	3.00	8.75	3.50	9.25	3.00	10.00	3.75	4.50	3.25	4.00	3.25	3.50	2.25	5.00	1.50
	8.75	1.75	11.75	1.75	10.00	3.75	6.00	2.75	9.50	1.25	10.00	3.25	3.50	3.50	3.25	2.75	4.00	4.75	2.50	1.25
	6.75	1.00	6.25	1.25	11.25	1.25	5.00	1.75	9.00	2.25	9.25	3.00	3.50	2.75	3.75	3.25	3.25	3.00	5.25	2.50
	8.00	1.50	10.25	2.75	9.75	2.75	6.00	2.50	8.50	2.75	8.75	4.00	3.75	3.00	3.25	2.25	3.25	3.00	2.25	2.00
	10.50	2.25	10.00	2.00	10.50	2.75	5.50	2.25	11.00	4.00	7.50	2.75	5.00	5.50	2.75	3.25	4.75	3.50	3.75	2.25
	12.50	2.50	10.00	1.75	10.25	3.00	6.50	3.75	10.50	3.00	8.00	2.75	4.25	3.25	3.75	3.25	3.75	3.00	2.25	3.75
Averages	142.50	29.25	138.25	27.00	120.00	44.50	110.50	39.50	139.25	41.75	149.25	48.25	81.00	52.00	59.50	52.00	56.75	41.75	58.75	33.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	gms.	grs.	mm.	P. ct.	gms.	grs.	mm.	P. ct.	gms.	grs.	mm.	P. ct.	gms.	grs.	mm.	P. ct.	gms.	grs.	mm.	P. ct.
Highest	12.50	192.93	3.25	16.25	11.75	181.36	5.00	25.00	12.25	189.07	4.75	23.75	6.00	92.61	5.50	27.50	6.50	100.32	4.75	23.75
Lowest	5.00	77.17	1.00	5.00	2.50	38.59	1.00	5.00	7.50	115.76	1.25	6.25	2.75	42.44	1.25	6.25	2.25	34.73	1.00	5.00
Average	9.38	144.47	1.88	9.40	7.62	118.54	2.80	14.00	9.33	144.00	3.00	15.00	4.28	66.06	3.47	17.35	3.85	59.42	2.50	12.50
Tests above average	19		12		18		13		12		12		14		12		14		14	
Tests below average	11		18		12		17		18		13		16		18		16		15	

TABLE XLII.—*Results of tests of strain and stretch for raw silks*—Continued.

Catalogue No. of samples ..	378. DRY YELLOW.				378. WET YELLOW.				378. DRY WHITE.				378. WET WHITE.				379. DRY.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*
	5.50	2.50	10.00	3.50	6.25	1.50	8.00	3.50	4.00	2.25	9.75	3.00	11.00	2.75	6.75	2.75	10.50	4.00	15.50	5.00
	6.75	4.75	9.50	3.00	6.75	2.00	7.00	3.25	4.25	3.25	5.50	2.00	10.50	4.00	7.50	2.75	10.50	4.75	15.50	4.25
	6.00	2.75	11.00	4.25	7.00	1.50	8.00	2.00	4.00	1.75	5.75	2.25	11.75	2.00	9.00	2.00	8.00	2.50	15.00	4.25
	5.75	4.25	9.00	2.75	7.75	1.75	6.50	2.00	3.75	2.25	10.00	3.00	11.25	2.00	10.25	2.25	11.00	4.00	14.00	3.25
	5.00	2.25	10.50	4.00	6.00	2.00	8.25	3.25	3.75	2.25	6.50	1.75	11.25	3.00	9.50	1.75	8.00	1.25	15.00	4.25
	8.75	3.25	9.50	5.00	12.25	1.75	7.00	2.25	8.00	3.25	5.25	1.75	9.75	1.75	11.00	2.25	16.00	1.75	14.50	4.25
	8.75	4.75	9.00	4.50	6.25	2.50	9.50	1.75	7.75	3.00	6.00	1.25	11.25	2.75	8.00	1.75	17.25	3.25	13.00	3.75
	9.50	4.00	9.25	4.50	8.57	3.25	10.50	3.75	9.50	3.25	4.00	1.50	11.00	3.50	11.00	3.00	16.00	5.25	13.25	3.75
	9.25	2.00	6.00	1.25	8.75	3.00	8.75	3.00	9.00	3.25	4.25	1.25	11.25	2.75	9.25	1.75	15.50	4.00	12.50	2.25
	8.00	2.25	5.25	3.25	6.50	1.75	7.00	3.00	7.00	4.00	6.25	2.75	11.00	4.00	10.00	3.75	13.50	3.75	12.25	2.25
	11.00	4.75	5.00	2.00	9.25	2.75	11.00	2.00	8.50	3.50	4.00	1.50	6.75	1.75	8.00	1.75	11.00	1.75	5.50	1.25
	9.25	4.25	5.25	2.25	6.75	1.25	6.00	1.75	8.50	2.75	5.25	2.25	7.00	1.25	9.25	2.25	13.00	2.50	7.25	1.25
	12.00	1.75	5.75	2.25	7.00	1.75	7.50	1.75	8.00	2.50	4.50	1.25	8.00	1.75	10.25	1.75	11.75	2.75	5.25	1.00
	10.00	3.25	9.00	4.00	8.25	1.25	7.75	2.25	7.75	1.75	4.25	2.25	10.00	3.00	8.75	2.50	13.00	3.50	7.50	2.00
	10.75	2.75	9.25	4.25	7.50	2.25	6.25	1.75	8.50	3.50	5.25	2.25	11.00	3.00	10.00	2.75	14.00	3.00	6.25	1.50
Total	126.25	49.50	123.25	50.75	115.00	30.25	119.00	37.25	102.25	42.50	86.50	30.00	152.75	39.25	141.50	35.00	189.00	48.00	172.25	44.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	*gms.*	*grs.*	*mm.*	*perct.*	*gms.*	*grs.*	*mm.*	*perct.*	*gms.*	*grs.*	*mm.*	*perct.*	*gms.*	*grs.*	*mm.*	*perct.*	*gms.*	*grs.*	*mm.*	*perct.*
Highest	12.00	185.22	5.00	25.00	12.25	189.07	3.75	18.75	10.00	154.35	4.00	20.00	11.75	181.36	4.00	20.00	17.25	266.25	55.25	26.25
Lowest	5.00	77.17	1.25	6.25	6.00	92.61	1.25	6.25	3.75	57.88	1.25	6.25	6.75	104.18	1.25	6.25	5.25	81.03	1.00	5.00
Average	8.32	128.42	3.34	16.70	7.80	120.39	2.25	11.25	6.29	97.08	2.42	12.10	9.81	151.41	2.48	12.40	12.04	185.83	3.08	15.40
Tests above average	19		14		12		10		13		13		18		15		18		17	
Tests below average	11		16		18		17		17		17		12		15		12		13	

Catalogue No. of samples ..	379. WET.				380. DRY.				380. WET.				381. DRY.				381. WET.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*
	12.00	2.00	13.00	2.00	8.50	6.00	9.50	3.75	10.00	1.25	10.00	1.75	8.25	4.25	8.25	4.25	5.25	1.75	7.00	2.75
	11.25	2.75	12.00	3.50	8.00	4.00	9.00	3.00	11.00	2.75	10.00	2.50	7.75	3.25	7.75	2.75	6.25	1.75	7.50	2.25
	12.25	3.00	13.25	1.25	8.25	3.25	9.00	3.75	11.25	2.00	10.50	4.00	8.25	4.00	8.25	2.75	6.50	3.25	5.75	1.75
	12.00	2.25	12.25	3.25	9.25	2.75	10.00	3.00	10.25	4.00	10.50	2.50	7.75	3.50	8.25	3.25	7.50	3.50	7.25	4.00
	11.75	3.00	12.50	4.25	7.75	4.25	10.50	3.50	11.00	3.25	12.50	3.00	8.75	3.25	8.75	3.50	7.75	2.25	8.00	3.75
	10.25	2.50	10.50	2.00	13.00	4.00	6.00	3.25	12.00	2.75	12.00	2.75	9.75	2.75	9.25	2.25	6.75	3.00	6.75	2.25
	12.00	1.25	13.00	2.00	13.00	3.25	7.25	3.75	10.50	1.75	12.00	2.00	9.00	1.50	8.75	3.00	7.50	2.25	5.00	2.25
	11.00	3.00	8.00	1.75	12.25	2.75	5.50	2.25	10.75	1.50	12.25	2.25	8.50	1.25	9.25	1.50	7.00	1.25	8.50	3.50
	10.25	2.00	10.50	2.75	11.50	2.75	6.50	3.25	12.50	2.00	10.25	2.75	9.50	3.75	9.00	3.00	7.00	1.75	6.25	1.25
	11.00	3.00	8.00	2.50	12.25	3.00	7.25	4.00	11.25	2.00	10.50	1.75	9.25	3.50	10.25	2.25	8.00	3.00	7.50	1.75
	9.00	2.25	12.00	3.25	14.00	4.50	7.00	3.50	10.00	2.50	13.50	3.00	10.00	4.25	7.00	3.00	7.75	1.75	7.00	2.00
	8.00	1.75	12.00	3.75	12.25	3.50	7.75	3.50	9.00	2.00	12.25	3.25	12.00	4.25	5.25	2.00	6.25	3.00	7.00	2.00
	8.25	2.75	11.25	3.25	12.50	3.25	7.00	4.00	10.00	3.00	9.25	2.00	10.25	4.00	7.00	3.00	6.75	2.25	7.25	1.50
	10.00	2.25	13.50	3.75	15.00	5.00	6.00	3.25	10.75	2.75	11.25	2.25	10.50	4.00	5.00	2.00	7.25	1.75	7.50	4.00
	11.50	3.00	13.00	3.50	14.50	3.75	6.50	3.50	14.00	4.00	10.50	3.00	10.00	3.25	6.25	3.25	7.00	1.75	6.25	2.25
Total	160.50	36.75	174.75	42.75	172.00	56.00	114.75	51.25	164.25	37.50	167.25	38.75	139.50	50.75	118.25	41.75	104.50	35.25	104.50	37.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	*gms.*	*grs.*	*mm.*	*perct.*	*gms.*	*grs.*	*mm.*	*perct.*	*gms.*	*grs.*	*mm.*	*perct.*	*gms.*	*grs.*	*mm.*	*perct.*	*gms.*	*grs.*	*mm.*	*perct.*
Highest	13.50	208.37	4.25	21.25	15.00	231.52	6.00	30.00	14.00	216.08	4.00	20.00	10.50	162.06	4.25	21.25	8.50	131.19	4.00	20.00
Lowest	8.00	123.48	1.25	6.25	5.50	84.89	2.25	11.25	9.00	139.91	1.25	6.25	5.00	77.17	1.25	6.25	5.00	77.17	1.25	6.25
Average	11.18	172.56	2.65	13.25	9.56	147.55	3.58	17.90	11.05	170.55	2.54	12.70	8.59	132.58	3.08	15.40	6.97	107.58	2.42	12.10
Tests above average	18		16		12		12		12		14		16		16		19		10	
Tests below average	12		14		18		18		13		16		14		14		11		20	

PART II.

SUPPLEMENTAL REPORT ON EXAMINATION OF WOOLS.

LETTER OF TRANSMITTAL.

UNIVERSITY OF ILLINOIS,
Champaign, Ill., January 15, 1885.

SIR: I have the honor herein to submit a detailed report of an investigation of wools, supplementing a report made one year ago bearing upon the same subject. The former report was based upon work with material collected at the International Exhibition of Sheep and Wool Products, held in Philadelphia in September, 1880, from animals and fleeces therein exhibited. It was expected that in such an exhibition it would be possible to secure material, not only from every portion of our own country, but from every part of the globe in which any attention is given to the art of sheep-breeding and wool production. But unfortunately these expectations were not realized. The sections of country represented were extremely limited in number, Vermont, the wool-growing section about Western Pennsylvania, Southeastern Pennsylvania, and Delaware, and a small section of Kentucky completing the list. Foreign countries failed to send exhibits, and even of our own country only a few of the prominent breeds were represented. Our investigations were therefore confined to a study and comparison of the wools of a few different breeds and different sexes and ages, as well as of different portions of the fleece. Another disadvantage resulted from the small number of animals found in each class, so that the reduction of averages became a difficult and unsatisfactory task. However, the work furnished results which, notwithstanding their deficiencies, must prove of interest and value. Primarily it was especially to supply such deficiencies that the investigation forming the principal subject-matter of this report was made. The work about to be reported has mainly consisted in the determination of the influence of the section of country upon the quality of the wool produced from the breed of sheep known as the American Merino, the origin of which is too well known to need any description or discussion here; or, rather, its object was to determine differences in the qualities of wool from the leading wool-producing centers as possibly dependent upon climatic influences or upon the food common to the section. And the wool of this breed was chosen for the investigation because of the general interest centering in it, because of its high commercial value, and because it constitutes the basis of all the best wool-production of the world.

To carry out the plan of this investigation, therefore, letters were addressed to the more prominent and reliable breeders of pure American Merino sheep, or to officers of societies, asking them to kindly furnish samples of wool representative of the quality produced from pure-bred sheep in their locality, and in order to secure the greatest uniformity it was requested that the samples be taken only from animals descended directly from Vermont stock bred and grown in the section represented. And to better fix the relations it was requested that the series from each section should consist of samples taken from 20 rams and 50 ewes over two and under three years of age. It was considered that this number would insure a fair average from the section and also afford data for comparison of the relations between the sexes. Investigation subsequent to the distribution of these letters showed that as regards the ultimate value of the staple the age of the animal is comparatively insignificant. Previous investigation had, however, shown that the age has an influence upon the fineness of the fiber, and since the highest degree of fineness was found at about the age mentioned, this was adopted as the standard for our comparison. All the conditions therefore seemed favorable to good results; but how difficult it is by correspondence to secure exactly what is desired for such work is well illustrated in the catalogue and the letters given below. In spite of the interest such an investigation must have for the experienced and progressive breeder and wool-grower, the samples obtained from some of the sections were not altogether satisfactory, and very many important wool-growing sections were not represented. Those from which we were favored with samples are Vermont, New York, Western Pennsylvania, Wisconsin, Minnesota, Illinois, Texas, and California. In most cases the samples were taken from animals bred in the section, descended from Vermont stock, while in a few cases some of the animals had been brought from Vermont. Fortunately the latter cases were very few, and the results we shall have to present herewith may be accepted as fairly representative of the production of the sections named.

In securing the material here described, we are especially indebted to Mr. Albert Chapman, Middlebury, Vt.; Mr. William G. Markham, Avon, N. Y.; Mr. John McDowell, Washington, Pa.; Mr. George E. Peck, Geneva, Ill.; Mr. Charles E. Gibbs, Whitewater, Wis.; Mr. A. Willson, Richfield, Minn.; Mr. J. D. Keraly, Cottonwood Springs, Tex.; and Messrs. Baechtel Bros., Willits, Mendocino County, California.

In addition to the pure-bred wools procured through the instrumentality of the gentlemen just named, we were further favored with a series of wools from sheep of the Negretti race, bred in Germany, and imported to this country for the purpose of establishing the race on American soil. These animals were exhibited in the Fat Stock Show of Chicago, in the fall of 1883. They were brought to this country by Mr. E. W. Perry, of Chicago, who kindly furnished the series of samples for examination. And since they represent fairly the average of the flocks of the class in Germany, they furnish interesting data for the comparison of the American Merino wools with those of other wool-producing sections. The relations involved will be developed further on.

And besides these samples from Germany we have received another series no less interesting from Herr Otto Steiger, of Leutewitz, near Meissen, Saxony, in Germany. This series may be accepted as fairly representative of the Saxon family of Merinos descended from the earlier importations from Spain. In this series it is interesting to note that the wool was produced upon animals of very large size, and that the fleeces were very heavy.

A third branch work consisted in the examination of the cross-bred wools furnished by Messrs. Baechtel Bros., of Willits, Mendocino County, California. These gentlemen have been engaged during the past ten years in a series of experiments to secure a race of hardy animals having large size, producing fairly heavy fleeces of wool of good quality and fineness. Starting with pure-bred animals they have made a series of crosses with varying proportions of Merino, Southdown, and Shropshiredown blood, and their own conclusions from the results of their experiments are embodied in the correspondence sent with the samples and given below. This correspondence will be read with the greatest interest by those concerned in the ultimate advancement of the sheep and wool industry in this country. The demand for mutton-wool sheep is strengthening, and as the necessity for the decrease of the cost of wool production advances, this question of how to combine the production of good mutton with the production of good wool, or *vice versa*, will increase in importance. And these experiments, of which such faithful record has been preserved by the Messrs. Baechtel Bros., will do much to clear up the many difficulties inherent in it. It gives us pleasure, therefore, to be able to add something to the knowledge flowing from them, and to offer the results showing the relative values of the wools they have been able to produce.

Respectfully submitted.

WM. McMURTRIE,
Professor of Chemistry, University of Illinois.

To Hon. Geo. B. Loring,
Commissioner of Agriculture.

DESCRIPTION OF THE MATERIAL AND ITS SOURCES.

The following correspondence which accompanied some of the material examined will be of interest in connection with the study of the results we have to present. In some cases the information concerning the samples was attached thereto, and this is the case with that received through Mr. A. Chapman, of Vermont. Such information will be found in detail in the catalogue of samples given below. It is full of interest and value, and we can only express regret that the information from other sections is not equally full.

ROCHESTER, N. Y., *March* 23, 1884.

DEAR SIR: One of our most scientific breeders has an impression that there is a point in density that we have surely made. It is this A dense fleece, which opens in blocks like the leaves of a book, only that the leaves may be ¼ inch or more thick, protects the fibers of wool in the block from rubbing against one another when the sheep is moving, turning, &c.; that the only rubbing of fibers against one another in such fleeces is the wool on the face of the leaves, while in the loose wool sheep it occurs all through the fleece; that the friction is detrimental to the fiber in injuring the scaly seriations and weakening the fiber; that fiber taken from the center of a block or leaf of wool will show quite a difference from those taken from the face of the leaf or from a thin-wool sheep. On the samples I have sent I have marked those from dense fleeces, so that you may experiment and see whether there is anything in the theory.

Yours,

W. G. MARKHAM.

RUSH, *March* 28, 1884.

DEAR SIR: As per request we send samples from four different ewes, all two years old this spring.

We are glad that an opportunity is offered to test our theory as to the evenness, trueness, and strength of fiber in the different parts of the same fleece.

We wish the test made on those grounds without regard to length or fineness. We are of the opinion that the thicker we can grow the wool in all parts of the fleece the more uniform will the quality be. These samples were taken, two from the very thickest fleeced sheep and two from the very thinnest, and were taken from the best and poorest parts of the fleece.

It would be interesting to know which one of these four samples would run evenest in quality and which the poorest. We deem this a very important question in the problem of sheep-breeding.

If we succeed in breeding a sheep producing one grade of wool in nearly all parts we will have accomplished a great improvement.

We wish the test made wholly on trueness, free from thick and thin places in the fiber; also the tooth-like projections or felting properties, and also to know what the opinion would be in regard to friction of fibers sliding one upon another causing weak places and unevenness in fiber.

P. AND G. F. MARTIN.

PATTERSON'S MILLS, WASHINGTON COUNTY, PENNSYLVANIA,
February 7, 1884.

DEAR SIR: To-day I have taken out a number of wool samples from stock rams, breeding ewes, ewe lambs, ram lambs. I have sold most of young stock for the last five years excepting lambs of 1883.

I have given number of each one and best fleeces of one year's growth; one bunch of small samples taken out of fleeces after shearing in the spring of 1880; selected some for finest quality, others longest staple and heaviest weight. Stock ram shorn first week of April, 1883; ten months growth of wool. Ewes clipped last of April, some in May; a few days over nine months' growth of wool. It will not be a fair test to compare two-year-old ewes not bred with ewes of five to eight years that have raised lambs since two years old.

Stock rams fed a little corn and oats most of the year; were not housed much until last of August; have been on dry feed since August. Ewes were not grained or housed till October 1st; fed a little grain since that time. They were a little thin to commence winter.

None of our stock was put up in show condition last season. We had a very wet season until last of July, followed by a dry fall; rather a hard year on stock generally. Our lambs did badly up to winter.

Respectfully, yours,

ROBT. PERRINE.

GENEVA, ILL., *February* 6, 1884.

DEAR SIR: I send you by this mail the samples of wool you wanted. The samples sent are all from our flock, E. Peck & Sons, and are marked "Vt. R.," for Vermont register, and "Am. R.," for American register; also the age of sheep.

The samples are all from ewes except those marked "ram." We have but three rams two years old, so that the samples of rams' wool are from sheep one and under two years old, except the samples from our stock rams.

The samples marked "unhoused" have been out to the weather the whole season, except the severe winter weather, and those marked "housed" have only been partly housed; some of them were our premium sheep at the State fair.

You will find one sample of wool marked "seventeen years old." It is a Vermont bred ewe we bought in the spring of 1880. She was toothless then; has been bred every year since, and is now in lamb.

I would like to have you make a test of the fibers of the samples marked stock rams, as to its value, and report the result to me.

Yours, very respectfully,

GEO. E. PECK.

WHITEWATER, WIS., *April* 9, 1884.

DEAR SIR: I send you to-day by express a small box of such samples of wool as I have been able to secure. They are all from thoroughbred sheep—Merino ewes and rams registered in the register of the Wisconsin Spanish Merino Sheep-Breeders' and Wool-Growers' Association, and in the Vermont register their pedigrees trace to importations in the register. They have been fed with hay and oats or corn during the winter and sheltered from the storms since October; nothing peculiar in their treatment. They are generally sheared in the early part of May.

Very truly, yours,

CHAS. R. GIBBS.

WHITEWATER, *Wis.*,

The six samples of ram's fleeces and ten of ewes were all taken from the shoulders and cut out February 16. They were shorn May 7 and 8, 1883. They have been kept out the heavy rains since August. No grain until taken up for the winter, then fed one-half bushel of corn and oats to fifty sheep, and good, tame hay all they will eat. The samples are all taken from pure Spanish Merino sheep, all recorded in the Vermont and Wisconsin State registers.

O. COOK AND SONS.

RICHFIELD, MINN., *February* 8, 1884.

DEAR SIR: In response to your request of January 10, I send you by this mail samples of Merino wool. As stated on the papers to which they are attached one row are ewe samples and the other rams, all two and three years of age.

I kept Merino sheep in Vermont near the part of that State where the celebrated Hammond flock was kept previous to 1850, when I moved to this State.

The basis of my present flock was ten ewes and one ram brought from Vermont in 1862, I think. All the outside blood mixed or added has been pure and direct from Vermont.

At the agricultural fairs of the Northwest my sheep have repeatedly been in competition with the best sheep from this and other States, and I have never found any to equal them. From my observation and experience, I conclude that sheep are more vigorous and healthy, grow larger, and produce more wool in the Northwest than in the Eastern States.

The feed of my sheep has been, during the winter, cockle screenings, costing three to five dollars per ton at Minneapolis mills, not much corn or oats, together with wheat-straw, a little hay, and corn-fodder daily. In summer, fair pasture and a little cheap feed occasionally. I intend to always keep them in good growing condition.

The sheep were sheared the 1st of May. The samples were taken to-day.

I should have stated before that my sheep are registered in the American Merino Sheep Register.

Yours, respectfully,

Q. WILLSON.

COTTONWOOD SPRINGS, TAYLOR, TEX., *March* 7, 1884.

DEAR SIR: I have to acknowledge receipt of your letter of 28th, and now beg to hand you 20 samples of wool from registered Spanish Merino. Ten of the samples are from rams about two years old, and from ewes of similar age.

While I send you these samples, I wish to state that my flock has been very much abused during the past year, owing to my being unable to attend to it through absence and sickness, during which time the sheep were left to the tender mercies of hands who neglected them to such an extent that when I returned home they were pretty nearly dead, which will account for some weakness in fiber.

I do not think any comparison you can make between Texas wool and that from other States—of wool from registered animals—would be entirely fair to this State, for the reason that there are very few flocks of that character here, while in other States, as Vermont, New York, or Ohio, you have quite a number to select from.

Moreover, stud flocks here have been only recently started, and quite naturally they did not originate from the very best stock of Vermont, as breeders there would not part with their choicest ewes, and it is against the wool from the produce of these that the samples from Texas will come into competition.

I trust, however, that what samples I now send may be of some use to you, and that I may learn in due time the result of your investigations, which I am sure would be of very great interest to the wool producers of this State.

The sheep from which these samples are taken were bred and raised in Texas from stock imported by myself from Vermont.

Yours, very respectfully,

I. D. KERAEY.

FEBRUARY 28, 1884.

DEAR SIR: Your letter of the 12th ultimo came to hand on the 19th. You wish us to send you more wool samples. We will try and comply with your request, but cannot furnish them in the amounts you desire as our flock of thoroughbred Spanish Merino is small and we are selling our bucks at yearlings. Have but 7 two-year olds—about twenty-five months old now—on hand, and have cut a sample of wool from each of them, on the left shoulder, about the same place. We have 8 ewes of the age of the bucks. Cut a sample from each. Four had no lambs this year and four are suckling lambs about five weeks old.

The samples put up in white tissue paper have lambs, and four put up in red paper have had no lambs. These two lots are about twenty five months old. I have put you up another lot of eight wool samples from thoroughbred Spanish Merino ewes thirty-seven months old. The four in white tissue paper are nursing lambs five or six weeks old, and the four in red paper have not had lambs this season. The box we send you has three lots of samples in it. After taking out the samples a paper in the bottom of each compartment describes the class. We would have cut you larger samples, but it would have made our sheep look so ragged, and the season of the year is approaching for buyers to come around, and we want our sheep to look as well as possible.

These samples are 5½ months' growth, and we could not cut them quite as close as though we were shearing. When you write let us know how large samples you desire. There are no selected samples in this lot, as we have given you all of each class.

Our sheep are bred from 9 ewes purchased in 1873 in San Francisco, bred in Missouri from stock selected from the Hammond stock in Vermont; and we have been breeding them with the utmost care to bucks selected from reliable breeders in this State. Our flock now numbers about 80 head of yearlings and upward.

We should like to comply with your request when we shear in May, with our grade samples, but cannot comply with grade buck samples between 2 and 3 years old. The same trouble stares us in the face as in our Merino family. We have so few bucks of the age you wish samples from that it will hardly be a fair test. The ewe samples of the age we can furnish you.

If you desire it we can give you samples off our yearling bucks and yearling ewes in May, but in the fall we may have disposed of all our yearling bucks.

You can advise us what to do before we shear in May. We should like to see this samples business better patronized. If we are the only patrons from California, we are taking the liberty of addressing men who are engaged in the rearing of thoroughbred sheep in this State, giving them your address, and asking them to furnish samples as we are doing, in hopes that you may get a wider field from which to draw your conclusions.

We omitted at the time making any statement of the care and treatment of those sheep from which we clipped our samples. The bucks have been running in field all winter without any shelter, except timber, and fed on no hay. The ewes without lambs received about the same treatment, with the exception of a shed to go under in stormy weather. The ewes with lambs were sheltered every night for about two months, fed hay and about one pint of oats for six weeks, then one-half pint for the other two weeks. The wool grows slow on our sheep in winter, which makes our samples short.

If you desire any other information, write us and we will cheerfully furnish it.

Very respectfully, yours,

BAECHTEL BROS.

WILLIAM MCMURTRIE, Esq.,
Champaign, Ill.

WILLITS, MENDOCINO COUNTY, CALIFORNIA, *May* 30, 1883.

DEAR SIR: Inclosed you will find 15 samples of wool. We could forward no earlier, as the season for shearing was later. We just finished last Saturday. We have labeled each bottle. Some of the labels might come off and we have taken the extra precaution of numbering them on the cork. Will give the grade of wool contained in each bottle:

No. 1. Yearling ewe; fifteen-sixteenths Merino, one-sixteenth Southdown.
No. 2. Yearling buck; seven-eighths Merino, one-eighth Southdown.
No. 3. Yearling buck; seven-eighths Merino, one-eighth Southdown.
No. 4. Yearling ewe; seven-eighths Merino, one-eighth Southdown.
No. 5. Ewe, 3 years old; seven-eighths Merino, one-eighth Southdown; dam pure Merino; sire three-fourths Merino, one-fourth Southdown.
No. 6. Ram, 2 years old; three-fourths Merino, one-fourth Southdown.
No. 7. Ewe, 2 years old; three-fourths Merino, one-fourth Southdown.
No. 8. Ewe, 5 years old; one-half Merino, one-half Southdown.
No. 9. Yearling ewe; three-fourths Merino, one-half Shropshire, one-eighth Southdown.
No. 10. Yearling buck; three-eighths Merino, one-half Shropshire, one-eighth Southdown.
No. 11. Yearling ewe; three-fourths Merino, one-fourth Southdown.
No. 12. Ram, 4 years old; thoroughbred Shropshire.
No. 13. Buck, 4 years old; thoroughbred Merino.
No. 14. Ewe, 4 years old; thoroughbred Merino.
No. 15. Yearling buck; thoroughbred Merino.

The numbers 1, 2, 3, 4, 9, 10, 11, and 15 had an 8½ months' growth of wool; the numbers 5, 6, 7, 8, 12, 13, and 14, 8½ months' growth of wool. The ram No. 12 was bred from imported sheep, by I. B. Hoyt, in Solano County, California; sire of Nos. 9–10, Dana, three-fourths Merino, one-fourth Southdown; grade ewes. Our thoroughbred ewes, 10 in number, were selected from the Hammond & Atwood stock, in Vermont, and brought to this State by Jewett and Houghton, in 1873. We bought them in February, 1873. That forms the base of our flock. We have since infused two foreign crosses, one in 1878, one in 1880. The ram bred to them in 1878–'79 was the son of Big Leg; Gold Drop sired Clay Raum; sired Big Leg; sired Ram Beecher. Dam, Holmes Beatty Fremont; got Chief; got Beecher, sample No. 13. Ram bred by I. H. Stroteridge, Haywards, Alameda County, California. He was sired by Teaser; he by Young Victor; he by imported Victor. From this flock we selected our best rams, and made the different crops from which we obtained the samples of wool. Our Southdown flock was bred from sheep imported by I. D. Patterson and E. W. Meek, Alameda County, California. No. 13 was sired by Beecher. No. 15 was sired by Modoc. The ram bred by I. H. Stroteridge.

We live in a favored locality for wool-growing, in Little Lake Valley, 1,400 feet above sea-level; about the central part of Mendocino County, California, and about 25 miles by air line to the Pacific Ocean.

The wools grown in this county and Humboldt are considered the best product of the State. Little or no provision is made by the flock-masters for their sheep. Two or three months of our winter is rather severe on our stock. Our range is a small one, 880 acres. We give our sheep more care than our neighbors do theirs. Feed them a little hay in winter when we have a snow-fall that covers the ground for two or

three days. Our Merinos have a shed with hay to run to for three months during the winter, in which they shelter themselves when the weather is too inclement. The samples of wool are the natural growth. We shear our sheep twice a year, and aim to shear in May and September, an eight months' winter clip and four months' summer. Our annual averages of fall and spring clip have been as follows:

Southdown ewes, when we bred them to start our flock of Crossbreeds	4.49
First cross, one-half Southdown, one-half Merino	7.86
Second cross, three-fourths Merino, one-fourth Southdown	11.22
Third cross, seven-eighths Merino, one-eighth Southdown	11.06
Fourth cross, fifteen-sixteenths Merino, one-sixteenth Southdown	10.70
The cross from the thoroughbred Shropshire and three-fourths Merino ewe	9.14

After breeding the second cross with Merino bucks our wool was complained of by the buyers as being too yolky and gummy. We then selected our lightest-fleeced white-wooled Merino rams, and bred the third cross with them. Their progeny fell $\frac{1}{100}$ below the previous one, and the fourth cross $\frac{5}{100}$ below the second. In the first year the bucks' fleeces of the second cross averaged $19\frac{2}{10}$ pounds. In the third cross they averaged $16\frac{13}{100}$ pounds, and in the fourth cross 15 pounds. You will notice we went back a little each cross by materially diminishing the weight of our bucks' fleeces. As we approached the Merino, our wool shortened and became finer. We are now working with a cross of Shropshire in our flock, in order to increase the weight of the carcass of our sheep and lengthen their wool. You will notice the first cross between our Merinos and Southdowns gave us $7\frac{86}{100}$ pounds of wool. The first cross with our Shropshire, Merino, and Southdown gave us $9\frac{14}{100}$ pounds, with one-eighth less Merino than our first cross had, and a much larger and more vigorous sheep.

We have given you these results hoping they may aid you in the investigations you are making. We have kept a complete record of our lines in breeding in order to find out what we were doing. The three-fourths-bred sheep, in our judgment, have given us the best results thus far. We design bringing up our Shropshire cross to a three-fourths standard and see what the difference will be in length of staple, quality of wool, size of sheep, motherly qualities, &c. Our only way to obtain results is to average our different grades. The first year we secure the lamb fall clip and spring shearing, and use our judgment on quality of wool, which is rather precarious with the naked eye. We are much gratified that we shall now have an opportunity of more definitely arriving at conclusions after your investigations are made. We are in the beginning of our breeding, having taken "Youatt's" standard of the measurements of fibers of wool to the lineal inch. In 1835 he gave the thoroughbred Merino at 750 and the Southdown 660. The patent plodding tenton ascertained that 48,000 fibers grew on a square inch of skin of their finest Merino. The Germans, in their crosses between these coarse-wooled sheep with but 5,500 fibers, increased the number of fibers 1,075 each cross. Assuming that our Southdown had 31,114 and the Merino 48,000, our one-half breed cross, 32,189; three-fourths cross, 33,264; seven-eighths cross, 34,339; fifteen-sixteenths cross, 35,414, it would take 15 crosses to bring us up to the pure Merino standard. We approach it faster in general form than we do in quality of wool. Since the time of Youatt's writing our Merinos have greatly improved in fineness.

The late Manly Miles, president of the Agricultural College of Michigan, measured fibers of wool he obtained at the World's Fair at Philadelphia that ran up as high as 1,500 fibers, and Southdown 750 fibers, to the lineal inch.

We have sent you some samples of our thoroughbred Merinos in order to ascertain how we stand in regard to fineness with other localities.

No record of Shropshire fibers, in all the works we have read, have been given.

If there is any information you want that we have not given we could perhaps furnish it from our record of sheep-breeding of nine years' practical experience.

The samples furnished have all been taken from the shoulder of the sheep. When shearing we take samples from about the same place on each sheep.

Very respectfully, yours,

BAECHTEL BROS.

WILLITS, MENDOCINO COUNTY, CALIFORNIA, *April* 2, 1884.

DEAR SIR: Your letter of March 12, acknowledging the receipt of our wool samples. We were sorry we could not send you a better assortment, but they were all of each class of that age of sheep we had on hand.

In our spring shearing in May we can send you more grade samples. You stated that wool samples taken from sheep between 2 and 3 years old were the kind you desired. We can send you ewe samples of that age, but not of bucks, as we have only 5 that are 3 years old and 4 that are 2 years past. But these would not be a fair sample of the flock, as the best of the bucks have been sold, and these are only the least valuable.

If you will accept yearling bucks and ewe samples, we can furnish you with the following varieties this spring:

Three-fourths Merino, one-fourth Southdown: Bucks and ewes, twenty of each.

Nine-sixteenths Merino, four-sixteenths Shropshire, three-sixteenths Southdown: Bucks and ewes, twenty of each.

Three-eighths Merino, four-eighths Shropshire, one-eighth Southdown: Small variety of each.

One-fourth Merino, four-eighths Shropshire, two-eighths Southdown: Bucks and ewes, twenty of each.

If you want these varieties, please let us know. Are the samples last sent you large enough?

We have kept a complete record of average weight of fleece of our different grades of sheep each shearing, and have made annual averages covering a period of nine years, in order to note our progress as we approached the Merino. It approximates results, but not absolute conclusions, as seasons are not alike, and this makes the difference of weight of fleece. The nearer you approach the thoroughbred Merino, the greater the loss in fleece weight when we have a cold and backward spring.

Our table shows—

(1) Number of days between annual shearings.

(2) Number of sheep shorn.

(3) Average price of wool sold at the county seat of our county.

(4) Net returns per head.

(5) Average weight of fleece of Merino bucks bred.

(6) Weight of different grades.

(7) Average per cent. of lambs.

If this would be any advantage to you, and you desire it, we will send you a copy, or any other information you desire. Are pleased to hear you are giving the grade Down families your close attention.

Yours,

BAECHTEL BROS.

WILLITS (LITTLE LAKE VALLEY), MENDOCINO COUNTY, CALIFORNIA, *May* 27, 1884.

SIR: We have at last been able to fulfill your request for wool samples. Inclosed you will find nine packages, of ten samples each with their respective grades marked thereon.

We could not comply with your request of twenty samples from each class, as in some of the classes furnished we did not have twenty sheep of that class, and concluded to make it uniform and send but ten of each class.

In one-half Merino and one-half Southdown ewe samples, seven years old, we did not have bucks to get samples from. Also in the ten ewe samples, three-fourths Merino and one-fourth Southdown, between three and four years old, we did not have bucks of the corresponding age to get samples from.

We bred these ewes, the last description, by two crosses of the Southdown ewe and progeny to thoroughbred Spanish Merino bucks. We carried that line of breeding two crosses higher; were not pleased with it, as it shortened the staple, reduced the size of the carcass, lessened the flow of milk, nearly entirely destroyed the motherly qualities of the Southdown, with much lighter percentage of lambs. Lambs more feeble and delicate, &c.

Last year we sold all grades above a three-fourths Merino and one-fourth Southdown. In order to hold that grade we selected our best bucks from the three-fourths grade flock and bred them to our three-fourths ewes, and the three-fourths yearling buck and ewe samples furnished you now are the result of that line of breeding.

Just as Elmore did in perfecting his Southdown flock in England. We are pleased with it as far as we have gone and can see no deterioration in carcass, rather an improvement; a little less in average weight of fleece. We have had rather a peculiar season, very cold and late spring; no chance for the animal to get a large amount of yolk or grease in the wool. We do not consider it a fair test. Will you be kind enough to have a minute examination made with that end in view, whether you can detect any peculiarity, differing from the ten samples furnished you from the same class of ewes one year older?

Our sheep are all lambed in the month of February each year, and you will please notice on the label yearling means sheep one year old last February, &c. The samples furnished are a growth of wool of eight months and five days. We will send you our tabulated statement of ten years' experience as soon as we can prepare it. We are somewhat busy just now. Hope everything may prove satisfactory.

If anything is not clear to your mind, write and we will endeavor to explain. Please acknowledge receipt.

Respectfully, yours,

BAECHTEL BROS.

WILLIAM MCMURTRIE, *Champaign, Ill.*

[Baechtel Brothers, breeders of thoroughbred and graded sheep, Willits, Mendocino County, California.]

JUNE 9, 1884.

DEAR SIR: You desired a statement of our wool-growing experience, which covers a period of nine years.

We commenced by crossing the thoroughbred Merino buck and Southdown ewe; we ran in that direction four crosses; endeavored to ascertain, by weighing and averaging our different grades of wool, what progress we were making, which has not given us very satisfactory results.

We are convinced that seasons have their influence on the growth of vegetation, their variance producing variable wools.

In regard to fineness, length of staple, amount of yolk (which is a very essential element to its perfection; *yolk* is generally considered the pabulum or base of wool); we could only ascertain by weighing each shearing of the different wools shorn and averaging the two shearings to make an annual average.

Our seasons being variable gave us variable results. By referring to our table you will notice our one-half and three-fourth averages. The first year of each made quite a departure from the Southdown family in average weight of fleece. The other two crosses, seven-eighths and fifteen-sixteenths, did not give us such marked results.

You will have to take into consideration we were breeding lighter fleeced thoroughbred bucks since 1879. We concluded that year that our bucks had too much black top, yellow yolk, and grease. We then sought for bucks with long staple, white yolk, and as free from grease as possible (pretty hard to find in Merino), and as free from wrinkles.

In the buck column you will notice a gradual reduction. From that time until in 1882 we fell to 14 pounds average. The next year we bred *grades* as well as thoroughbred buck, an average of 13 pounds; and the present year, ending in the spring, we bred grades and one thoroughbred buck, averaging a little above 14 pounds.

We will give you the whole table and you can use just such parts as you wish.

The following is the table above referred to:

Fall and spring.	Number of days between fall shearings.	Number of sheep shorn.	Annual average of wool per head.	Annual average price sold for in Ukiah City.	Net returns per head.	Average of Merino bucks fleeces bred.	Number of wethers shorn each year.	Southdown, annal average.	First cross, ½ Merino, ½ Southdown, annual average.	Second cross, ¾ Merino, ¼ Southdown, annual average.	Third cross, ⅞ Merino, ⅛ Southdown, annual average.	Fourth cross, 15/16 Merino, 1/16 Southdown, annual average.	Three-eighths Merino, ⅝ Shropshire, ⅜ Southdown, annual average.	Nine-sixteenths Merino, 9/16 Shropshire, 7/16 Southdown, annual average.	One-fourth Merino, ¼ Shropshire, ¾ Southdown, annual average.	Annual per cent. of lambs.
			Pounds.					*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	*Pounds.*	
1874, 1875	367	[illegible]	4.60	$0 23½	$1 22	16½	.....	4.60	.....	.....	.....	.....	.....	.....	.....	60
1875, 1876	357	[illegible]	5.49	16.2	78	16.4	20	4.48	7.86	.....	.....	.....	.....	.....	.....	84
1876, 1877	366	519	6.19	[illegible].5	1 28	17.4	78	4.49	7.57	.....	.....	.....	.....	.....	.....	97
1877, 1878	365	[illegible]	7.11	20.0	1 22	17.0	112	4.50	7.81	11.22	.....	.....	.....	.....	.....	70
1878, 1879	366	[illegible]	8.57	21.4	1 73	19.2	168	.....	7.86	10.36	.....	.....	.....	.....	.....	90
1879, 1880	366	[illegible]	7.99	25.6	1 88	16.5	228	.....	6.61	8.78	11.08	.....	.....	.....	.....	88
1880, 1881	373	551	8.54	26.4	2 04	15.0	115	.....	6.31	9.12	8.75	.....	.....	.....	.....	75
1881, 1882	355	[illegible]	8.14	21.1	1 36	14.0	53	.....	5.81	8.52	9.44	10.70	.....	.....	.....	55
1882, 1883	375	[illegible]	8.92	19½	1 42	*13.0	.....	.....	6.75	8.88	10.05	10.97	9.14	.....	.....	90
1883, 1884	356	711	8.02	17 5/16	1 10	*14.0	.....	.....	5.12	8.22	.....	.....	8.27	9.44	8.63	80

*Seven grade, 1 Merino.

Our market for wool during that time was Ukiah City, Mendocino County, California, 21 miles south of us. A column shows the annual amount sold for. Another, net returns per head after deducting shearings, sacks, sacking, twine, salt, hauling to Ukiah City, all expenses deducted except grass and care. You will notice the influence on the price of the last year, being nearly what the tariff took off, and would be fully so if we had not made a lucky sale this spring.

We felt our inability to arrive at correct conclusions by this method, as the fineness of the fiber, and its felting properties cannot be determined in that way, or any close distinctions made, except by carrying qualities in your eye. The length of staple can be determined.

We were much pleased when you so willingly accepted our offer of sending you samples, and hope after they are examined and reported upon to have more definite data to guide us in our future breeding.

In 1881 we commenced infusing Shropshire blood in our flock and are gradually working it through. We found the one-half and three-fourths crop between the Merino and Southdown, gave us very satisfactory results. It improved the length of staple of either parent variety, and largely increased weight of fleece. From the Southdown ewe we had large robust sheep. The other two crosses, seven-eighths and fifteen-sixteenths, did not give us much increase of fleece, diminished size, precocity, motherly qualities, and effeminacy. We found we had gone too far in that direction and last year sold off all the ewes we had above a three-fourths grade.

In the infusion of Shropshire blood, as far as we have gone, the result has been very satisfactory. It is giving us a large framed and somewhat compact sheep, with quite an increase of length of staple and motherly qualities, unsurpassed by the Southdown.

Good milkers we have considerable to contend with, as most of our flock-masters around us have quite a prejudice against the Down families. They consider they lose the wool on their bellies earlier in life than many other varieties. We rebut it by saying nature never intended a good flock-master to keep sheep beyond their prime. We are gradually wearing out the prejudice by their personal observation, and using some of our grade bucks in their flock. All we ask is to give them a fair trial. We are satisfied that if the Down families are not run too far into the Merino, they are the most desirable for our locality as large sheep.

Our system of rearing and care of sheep is different from older settled States. A large portion of our State is mountainous and adapted to no other class of stock as well as sheep. In fact large portions of it would be entirely useless if not used for sheep.

Our original stock of sheep were procured from Mexico, and they were a sorry lot. Early stock-masters in this State tried to improve them, or rather their progeny, by using grade Merino bucks. Their progress was slow, as there was no certainty the direction this progeny would take, as there were as many varieties almost as there were sheep, and being bred so long in that haphazard way, many became discouraged and quit the business. With grade bucks, unless they are pretty highly bred, their progress is slow. The improvement of the wool is taken on by degrees, and does not keep pace with the blood crosses—which deceives many persons.

At the commencement of our sheep business we bought all the standard authors on sheep; read them; applied as many of their suggestions as we could make practicable. Most sheep authors are theorists, in a measure. We started with Youatt who, in 1835, made measurements of wool fiber from an English thoroughbred Spanish Merino buck. He measured 750 fibers to the lineal inch. The Germans counted from 40,000 to 48,000 fibers on a square inch of skin from the same class of sheep. Youatt also counted the number of fibers to the lineal inch in the Southdown, making it 660. By calculation we find one-fourteenth of the space of the square inch occupied by the fiber.

According to German experiments, by crossing the thoroughbred Merino ram on their coarse sheep, upon which they counted 5,500 fibers to the square inch, by repeated crossings of these two varieties and their progeny on thoroughbred Merino rams, they found the increase of fibers to the square inch was 1,075.

Assuming when we commenced our cross-breeds each cross increased the number of fibers 1,075, it would take 15 crosses to breed up to the Merino standard.

The late Manly Miles, in his work entitled "The Art of Stock Breeding," made measurements of Spanish Merino wool fibers in 1876 from different parts of the world, and found they varied from 1,150 to 1,500 fibers to the square inch. He also counted upon the Southdown 850 fibers to the square inch. Our climate, good judgment in crossing the pure varieties of Spain, have made a marked difference in the improvement of their wool and carcass, but not the difference shown. We reluctantly come to the conclusion that Youatt must have been mistaken in his measurements. We are located in a favored locality for the production of sheep and wool unsurpassed by any other in the State, at least so wool buyers say.

As we said before, we expect to be aided by your examination. The wool interest in the United States is a large one, and to think that our State produces about one-eighth of the wool grown in it, we regret very much that more interest is not taken in the industry by practical men.

If we could have furnished weights of carcass with our wool samples, it would have been more satisfactory. Some three-year old three-fourths bucks we sold. At yearlings, parties took the pains to weigh them; they weighed from 168 to 198 after they were shorn, and their spring fleeces of 8 months' growth gave us an average of 9 pounds.

We could write more, as you will perceive from the pains we have taken. It is our favorite theme.

We have an ear-mark for each grade; just before shearing they are separated, shorn, and their wool weighed and averaged in their class, which is the reason why we could not attend to weighing the carcass. We are coming along with a few sheep that we expect much from as wool yielders; they are lambs of last February. They are one-half Shropshire, one-half thoroughbred Merino. The father Shropshire and the ewe Merino—but one remove from the Merino family. We propose to cross them with thoroughbred Merino buck, which will give us three-fourths Merino, one-fourth Shropshire; and cross the Merino ewe with the one-half Merino and one-half Shropshire lambs, and make a three-fourths Merino, one-fourth Shropshire. If we have not explained anything you desire, please let us know, and we will try and do so.

We hope you have received our last batch of wool samples.

Very respectfully, yours,

BAECHTEL BROS.

In addition to these letters, each series of samples was as a rule accompanied by a statement with regard to the conditions governing the production of the wool. The information contained in the statements thus furnished is collated in the catalogue of samples given below. We have arranged the catalogue somewhat according to the geographical distribution of the sections represented; beginning with Vermont and proceeding westward, the States are named in the order in which they are met, nearly.

A great many facts and conditions are set forth in this catalogue concerning the samples we have examined that we cannot undertake in this report to discuss. The relations of these facts to the results we present in our tables will furnish material for profitable study in many ways, and we can only express regret that they must be passed without further notice at the present time.

CATALOGUE OF SAMPLES.

VERMONT.

RAMS.

No. 525.—Bred by H. S. Brookins, Shoreham, Vt. Age, 22 months. Fleece, 10 months' growth. Vermont register H. S. B. 228. Sire, Rip Van Winkle, Vermont register 535; dam H. S. B. 32, Vermont register 534; grand-dam, a Robinson ewe.

No. 526.—Bred by E. A. Birchard, Shoreham, Vt. Owned by C. H. & J. A. James, Middlebury, Vt. Age, 34 months. Fleece, 10 months' growth. Vermont register E. A. B. 202. Sire, Rip Van Winkle, Vermont register 535; dam, a Robinson ewe bred by E. A. Birchard.

No. 530.—Bred by T. Stickney & Son, East Shoreham, Vt. Age, 34 months. Fleece, 10 months' growth. Vermont register T. S. & Son 611. Sire, T. S. & Son 441, Vermont register 1120; dam, an ewe of the old Stickney flock.

No. 533.—Bred by H. S. Brookin, Richville, Vt. Age, 34 months. Fleece, 10 months' growth. Vermont register H. S. B. 206. Sire, Rip Van Winkle, Vermont register 535. Dam bred by H. S. Brookin. Sire, H. S. B. 32, Vermont register 534. 2d dam, a Robinson ewe bred by S. C. Remele, Richville, Vt.

No. 534.—Bred by V. Rich, Richville, Vt. Age, 22 months. Fleece, 9½ months' growth. Vermont register J. T. & V. Rich 475. Sire, Broker, Vermont register 839; dam, by Banker, Vermont register 471; grand-dam, an ewe of the old Rich flock.

No. 535.—Bred by T. Stickney & Son, East Shoreham, Vt. Age, 34 months. Fleece, 10 months' growth. Vermont register T. S. & Son 601. Sire, Hopeful (546), Vermont register 640. Dam, one of the old Stickney flock of old ewes bred by T. S. & Son.

No. 537.—Bred by T. Stickney & Son, East Shoreham, Vt. Age, 34 months. Fleece, 10 months' growth. Vermont register T. S. & Son 606. Sire, Hopeful, Vermont register 1120. Dam bred by T. S. & Son.

No. 540.—Bred by A. H Hubbard, Whitney, Vt. Age, 33 months. Fleece, 10 months' growth. Vermont register A. H. Hubbard 200, or Atwood ram Leader. Sire, Jason, Vermont register 201. Dam bred by A. H. Hubbard; sire, Hooker's Wrinkley, Vermont register 252. Grand-dam, an Atwood ewe, bred by A. H. Hubbard. (This ram sheared 34½ pounds from 94 pounds carcass, second fleece. First and second fleeces shorn in public. Last fleece, 365 days' growth.)

No. 543.—Bred by H. S. Brookin, Richville, Vt. Age, 22 months. Fleece, 10 months' growth. Vermont register H. S. Brookin 228. Sire, Banker, Vermont register 471; dam bred by H. S. Brookin. Sire, H. S. Brookins 32, Vermont register 534; grand-dam, a Robinson ewe.

No. 545.—Bred by L. S. Burwell, Bridport, Vt. Age, 35 months. Fleece, 11 months' growth. Vermont register (1058) L. S. Burwell 84; Atwood and Robinson blood.

No. 554.—Bred by H. C. Burwell. Age, 35 months. Fleece, 11 months' growth. Vermont register H. C. Burwell 195; (second Vermont register 1027). Sire, H. C. Burwell, 157; Vermont register 1022; dam, Atwood and Robinson blood.

No. 555.—Bred by Lyman Clark, Addison, Vt. Age, 35 months. Fleece, 10½ months' growth. Vermont register Lyman Clark 70. Sire, Moses, Vermont register 495; dam bred by L. Clark; sired by L. P. Clark's Black Top, Vermont register 463. This ram is a pure Atwood, and sheared 28 pounds last fleece, or second fleece.

No. 563.—Bred by L. P. Clark, Addison, Vt. Age, 2½ years. Fleece, 11 months. Vermont register L. P. Clark 192. Sire, Moses, Vermont register 495; dam, L. C. C., Vermont register 5. Sired by C. K. Head, Vermont register 182; a pure Atwood ram.

No. 423.—Bred by Albert Chapman, Middlebury, Vt. Age, 21 months. Fleece, 9½ months' growth.

EWES.

No. 522.—Bred by H. S. Brookins, Shoreham, Vt. Age, 34 months. Fleece, 10 months' growth. Vermont register H. S. B. 188. Sire, Rip Van Winkle, Vermont register 535; dam, a Robinson ewe.

No. 523.—Bred by H. S. Brookins, Shoreham, Vt. Age, 34 months. Fleece, 10 months' growth. Vermont register H. S. Brookins 184. Sire, Banker, Vermont register 471; dam bred by H. S. B. Sire, H. S. Brookins 32, Vermont register 534; grand-dam, Robinson ewe. (This ewe raised lamb last season.)

No. 524.—Bred by J. Stickney, East Shoreham, Vt. Age, 34 months. Fleece, 10 months' growth. Vermont register T. S. & Son. Sire, Hopefull, Vermont register 1120; dam bred by T. S. & Son.

No. 527.—Bred by E. Stickney & Son, East Shoreham, Vt. Age, 34 months. Fleece, 10 months' growth. Vermont register T. S. & Son 528. Sire, Hopefull, Vermont register 1120; dam bred by T. S. & Son.

No. 528.—Bred by E. Stickney & Son, East Shoreham, Vt. Age, 34 months. Fleece, 10 months' growth.

No. 529.—Bred by H. S. Brookins, Richville, Vt. Age, 34 months. Fleece, 10 months' growth. Vermont register H. S. Brookins 190. Sire, Rip Van Winkle, Vermont register 535; dam, a Robinson ewe. (Raised a lamb last season.)

No. 531.—Bred by H. S. Brookins, Richville, Vt. Age, 34 months. Fleece, 10 months' growth. Vermont register H. S. Brookins 189. Sire, Rip Van Winkle, Vermont register 535; dam, a Robinson ewe. (Raised a lamb last season.)

No. 532.—Bred by Stickney & Son, East Shoreham, Vt. Age, 34 months. Fleece, 10 months' growth. Vermont register T. S. & Son 556. Sire, Hopefull, Vermont register 1120; dam bred by T. S. & Son.

No. 536.—Bred by A. Chapman, Middlebury, Vt. Age, 33 months. Fleece, 10 months' growth. Sire, O. and E. S. Hall 162, Vermont register 1028; dam, one of old Atwood flock, owned by George S. Atwood, son of Steven Atwood, who gave the Atwood name to the family.

No. 538.—Bred by A. H. Hubbard, Whitney, Vt. Age, 34 months. Fleece, 10 months' growth. Vermont register A. H. Hubbard 145. Sire, A. H. Hubbard 56, Vermont register 883; dam, an Atwood ewe, bred by A. H. Hubbard.

No. 539.—Bred by A. H. Hubbard, Whitney, Vt. Age, 34 months. Fleece, 10 months' growth. Vermont register A. H. Hubbard 152. Sire, Jason, Vermont register 201; dam bred by A. H. H. This ewe is Atwood blood.

No. 541.—Bred by Dean & Jennings, West Cornwall, Vt. Owned by A. H. Hubbard, Whitney, Vt. Age, 34 months. Fleece, 10 months' growth. Vermont register D. & J. 75. Sire, Jason, Vermont register 201; dam bred by E. S. Stowell (deceased), Cornwall, Vt.

No. 542.—Bred by A. Chapman, Middlebury, Vt. Age, 21½ months. Fleece, 10 months' growth. Vermont register A. Chapman 43. Sire, Rip Van Winkle, Vermont register 535; dam bred by A. Chapman 23. Sired by Bismarck, Vermont register 221; granddam, an Atwood ewe, bred by S. W. Remele, Rip Van Winkle. Sheared (365 days' growth), 38$\frac{5}{16}$ pounds. Sixth fleece, Bismarck, sheared (365 days' growth), 32½ pounds. Fourth fleece received grand sweepstakes at Centennial as best merino of any age. A. C. 23 sheared 15½ pounds, second fleece.

No. 544.—Bred by L. P. Clark, Addison, Vt. Age, 35 months. Fleece, 11 months' growth. Vermont register L. P. Clark 231. Sire, Moses, Vermont register 495; dam bred by L. P. C. Sired by Vigor, Vermont register 209. Second dam bred by L. P. C.; sired by Green Mountain, a pure Atwood, and an extra good one.

No. 546.—Bred by L. S. Burwell, Bridport, Vt. Age, 35 months. Fleece, 11 months' growth. Vermont register L. S. Burwell 94. Sire, L. S. Burwell 22, Vermont register 525; Atwood & Robinson blood. These L. S. Burwell ewes, sheared from 16 to 20 pounds, second fleece.

No. 547.—Bred by L. S. Burwell, Bridport, Vt. Age, 35 months. Fleece, 11 months' growth. Vermont register L. S. Burwell 98. Sire, L. S. B. 22, Vermont register 525; Atwood & Robinson blood.

No. 548.—Bred by L. S. Burwell, Bridport, Vt. Age, 35 months. Fleece, 11 months' growth. Vermont register L. S. Burwell 96. Sire, L. S. Burwell 22, Vermont register 525; Atwood & Robinson blood.

No. 549.—Bred by F. H. Eldridge, Bridport, Vt. Age, 34 months. Fleece, 11 months' growth. Vermont register F. H. Eldridge 33. Sire, L. S. Burwell 22, Vermont register 525. Atwood & Robinson blood.

No. 550.—Bred by L. M. Rockwood, Bridport, Vt. Age, 34 months. Fleece, 11 months' growth. Vermont register 4. Sire, L. S. Burwell 22, Vermont register 525; Atwood & Robinson blood.

No. 551.—Bred by L. M. Rockwood, Bridport, Vt. Age, 34 months. Fleece, 11 months' growth. Vermont register L. M. Rockwood 8. Sire, L. S. Burwell 22, Vermont register 525; Atwood & Robinson blood.

No. 552.—Bred by L. S. Burwell, Bridport, Vt. Age, 35 months. Fleece, 11 months' growth. Vermont register L. S. Burwell 100. Sire, L. S. Burwell 22, Vermont register 525; Atwood & Robinson blood.

No. 553.—Bred by L. M. Rockwood, Bridport, Vt. Age, 34 months. Fleece, 11 months' growth. Vermont register L. M. Rockwood, 5. Sire, L. S. Burwell 22, Vermont register, 525; Atwood & Robinson blood.

No. 556.—Bred by Lyman Clark, Addison, Vt. Age, 33 months. Fleece, 11 months' growth. Vermont register Lyman Clark 76. Sire, L. P. Clark's 165; dam bred by Lyman Clark, sired by general Vermont register 210. 2d dam bred by L. C., sired by Kilpatrick, Vermont register 71; pure Atwood.

No. 557.—Bred by H. C. Burwell, Bridport, Vt. Age, 38 months. Fleece, 11 months' growth. Vermont register H. C. Burwell 212. Sire, H. C. Burwell 157, Vermont register 1022; Atwood & Robinson blood. (NOTE.—This ewe's 2d fleece weighed 20¼ pounds. Her sire is No. 7 in list of measurements, 2d volume, Vermont register.)

No. 558.—Bred by H. C. Burwell, Bridport, Vt. Age, 33 months. Fleece, 11 months' growth. Vermont register H. C. Burwell 204. Sire, H. C. B. 157, Vermont register 1022; Atwood and Robinson blood. Sire is No. 7 in table of measurements in second volume, Vermont register.

No. 559.—Bred by C. P. Morison & Son, Addison, Vt. Age, 34 months. Fleece, 11 months' growth. Vermont register C. P. Morison & Son 157. Sire, H. C. B. 157, Vermont register 2022; Atwood & Robinson blood.

No. 560.—Bred by C. P. Morison & Son, Addison, Vt. Age, 35 months. Fleece, 11 months' growth. Vermont register C. P. Morison & Son 158. Sire, H. C. Burwell 157, Vermont register 1022; Atwood & Robinson blood. (NOTE.—This ewe sheared 20¾ pounds second fleece. Her sire is ram 7 in table of measurements in Vermont register, second volume.)

No. 561.—Bred by L. P. Clark, Addison, Vt. Age, 35 months. Fleece, 11 months' growth. Vermont register L. P. Clark 224. Sire, Moses, Vermont register 495; dam, L. P. C. 24. Sired by general Vermont register 210. Second dam L. P. Clark 12. Sired by Kilpatrick, Vermont register 71. (NOTE.—This ewe is pure Atwood.)

No. 562.—Bred by Lyman Clark, Addison, Vt. Age, nearly 3 years. Fleece, 10 months' growth. Vermont register Lyman Clark 82. Sire, Moses, Vermont register, volume 1st, 495. Dam bred by L. C. Sired by L. P. Clark, Black Top, Vermont register 463. (NOTE.—This ewe is pure Atwood.)

No. 424.—Bred by Albert Chapman, Middlebury, Vt. Age, 21 months. Fleece, 9½ months' growth.

NEW YORK.

RAMS.

No. 669 to 678 inclusive.—Bred by William G. Markham, Avon, N. Y., and No. 32 Powers Block, Rochester, N. Y. Age, 2 years. Fleeces of loose and medium density.

No. 691.—Bred by William G. Markham, Avon, N. Y. Age, 2 years. Vermont register D. & J. 220. Dense fleece.

No. 692.—Bred by William G. Markham, Avon, N. Y. Age, 2 years. Vermont register 377. Loose fleece.

No. 693.—Bred by William G. Markham, Avon, N. Y. Age, 2 years. Vermont register 469. Dense fleece.

EWES.

No. 679 to 684 inclusive.—Bred by William G. Markham, Avon, N. Y. Age, 2 years. Loose fleece.

No. 685.—Bred by William G. Markham, Avon, N. Y. Age, 2 years. Vermont register 237.

No. 686.—Bred by William G. Markham, Avon, N. Y. Age, 2 years. Dense fleece. Vermont register 236.

No. 687.—Bred by William G. Markham, Avon, N. Y. Age, 2 years. Dense fleece. Vermont register 254.

No. 688.—Bred by William G. Markham, Avon, N. Y. Age, 2 years. Dense fleece. Vermont register 234.

No. 689.—Bred by William G. Markham, Avon, N. Y. Age, 2 years. Dense fleece. Vermont register 244.

No. 690.—Bred by William G. Markham, Avon, N. Y. Age, 2 years. Dense fleece. Vermont register 239.

No. 694.—Bred by P. and G. F. Martin, Rush, N. Y. Age, 2 years. Vermont register 313. Thin, light fleece. (*a*) shoulder; (*b*) arm; (*c*) belly.

No. 695.—Bred by P. and G. F. Martin, Rush, N. Y. Age, 2 years. Vermont register 311. Very thick fleece. (*a*) shoulder; (*b*) arm; (*c*) belly.

No. 696.—Bred by P. and G. F. Martin, Rush, N. Y. Age, 2 years. Vermont register 282. Very thick fleece. (*a*) shoulder; (*b*) arm; (*c*) belly.

No. 697.—Bred by P. and G. F. Martin, Rush, N. Y. Age, 2 years. Thin, light fleece. (*a*) shoulder; (*b*) arm; (*c*) belly.

PENNSYLVANIA.

RAMS.

No. 564.—Bred by Robert Perrine, Patterson's Mills, Washington County, Pa. Age, 3 years. Weight of fleece, 23 pounds. Vermont register 502. Aries. Atwood Merino.
No. 569.—Bred by Robert Perrine, Patterson's Mills, Washington County, Pa. Age, 3 years. Vermont register 654.
No. 570.—Bred by Robert Perrine, Patterson's Mills, Pa. Age, 8 months. Vermont register 765.
No. 573.—Bred by Robert Perrine, Patterson's Mills, Pa. Age, 4 years. Vermont register Leo 714. Weight of fleece, 33 pounds.
No. 574.—Bred by Robert Perrine, Patterson's Mills, Pa. Age, 8 months. Vermont register 777.
No. 577.—Bred by Robert Perrine, Patterson's Mills, Pa. Age, 1 year. Vermont register 694.
No. 578.—Bred by Robert Perrine, Patterson's Mills, Pa. Age, 1 year. Weight of first fleece, 19 pounds. Vermont register 801.
No. 579.—Bred by Robert Perrine, Patterson's Mills, Pa. Vermont register Comet 35. (Sample taken out after he died, in March; 10 month's wool. Three best fleeces, 37½, 36, 35 pounds.)
No. 580.—Bred by Robert Perrine, Patterson's Mills, Pa. Age, 10 months. Vermont register 700.
No. 582-587, inclusive.—Bred by John G. Clark, Toledo, Washington County, Pennsylvania. Age, between 2 and 3 years. (Shorn 25th of May, 1883; and samples cut February 8, 1884. Saxon Merino samples.)
No. 779.—Bred by J. C. McNary. Lamb, Delaine Merino. (Sent by J. McDowell, Washington, Pa.)

EWES.

No. 565.—Bred by Robert Perrine, Patterson's Mills, Pa. Age, 8 years. Weight of fleece, 14 pounds. Vermont register 400.
No. 566.—Bred by Robert Perrine, Patterson's Mills, Pa. Age, 4 years. Fleece, 1 year's growth. Weight of fleece, 21 pounds. Vermont register 706.
No. 567.—Bred by Robert Perrine, Patterson's Mills, Pa. Age, 8 years. Weight of fleece, 16 pounds. Vermont register 416.
No. 568.—Bred by Robert Perrine, Patterson's Mills, Pa. Age, 6 years. Weight of fleece, 21 pounds. Vermont register 761.
No. 571.—Bred by Robert Perrine, Patterson's Mills, Pa. Age, 5 years. Weight of fleece, 13 pounds. Vermont register 367.
No. 575.—Bred by Robert Perrine, Patterson's Mills, Pa. Lamb. Vermont register 906.
No. 576.—Bred by Robert Perrine, Patterson's Mills, Pa. Age, 1 year. Vermont register 688.
No. 581.—Bred by Robert Perrine, Patterson's Mills, Pa. Age, 3 years. Weight of fleece, 17 pounds. Vermont register 701.
No. 588-597, inclusive.—Bred by J. G. Clark, Toledo, Washington County, Pennsylvania. Age, uncertain. Fleece, 8½ months' growth.
No. 772-778, inclusive.—Bred by J. C. McNary. Age, 2 years. Delaine Merino. Sent by J. McDowell, Washington County, Pa.

WISCONSIN.

RAMS.

No. 724.—Bred by C. M. Clark, Whitewater, Wis. Age, 2 years. 1st fleece, 15½ pounds.
No. 725.—Bred by C. M. Clark, Whitewater, Wis. Weights of fleeces: 1st, 16 pounds; 2d, 25½ pounds; 3d, 26½ pounds.
No. 726-735, inclusive.—Bred by S. Brooks, Whitewater, Wis. Thoroughbred Spanish Merino. Sheared June 1, 1883.
No. 726.—Age, 4 years.
No. 727.—Age, 3 years.
No. 728.—Age, 2 years.
No. 729.—Age, 2 years.
No. 730.—Age, 3 years.
No. 731.—Age, 4 years.
No. 732.—Age, 3 years.
No. 733.—Age, 2 years.
No. 734.—Age, 2 years.
No. 735.—Age, 2 years.
No. 736-740, inclusive.—Bred by F. W. Fratt, Whitewater, Wis. Registered in Wisconsin, Spanish Merino registry.
No. 736.—Age, 1 year.
No. 737.—Age, 1 year.
No. 738.—Age, 1 year.
No. 739.—Age, 2 years.
No. 740.—Age, 3 years.
No. 747-751, inclusive.—Bred by H. H. Cobb, Whitewater, Wis. Age, 1 year.
No. 752-755, inclusive.—Bred by Charles R. Gibbs, Whitewater, Wis. Age, 2 years. Sheared May 10, 1883.
No. 756-761, inclusive.—Bred by A. Cook & Sons, Whitewater, Wis. Age, 2 years. Samples cut from the shoulder. Pure Spanish Merino. Vermont and Wisconsin State register.

EWES.

No. 698.—Bred by Charles R. Gibbs. Age, 2 years. Sheared May 12, 1883.
No. 699.—Bred by Charles R. Gibbs. Age, 2 years. Sheared May 12, 1883.
No. 700.—Bred by Charles R. Gibbs. Age, 3 years.
No. 701.—Bred by Charles R. Gibbs. Age, 3 years.
No. 702-715, inclusive.—Bred by S. Brooks. Thoroughbred Spanish Merino. Sheared June 30, 1883.
No. 702.—Age, 3 years.
No. 703.—Age, 3 years.
No. 704.—Age, 2 years.
No. 705.—Age, 3 years.

No. 706.—Age, 3 years.
No. 707.—Age, 3 years.
No. 708.—Age, 2 years.
No. 709.—Age, 2 years.
No. 710.—Age, 2 years.
No. 711.—Age, 3 years.
No. 712.—Age, 4 years.
No. 713.—Age, 3 years.
No. 714.—Old.
No. 715.—Old.
No. 716–723, inclusive.—Bred by C. M. Clark. Age, from 3 to 5 years. Weight of fleece, from 12 to 19½ pounds.
No. 741.—Bred by F. W. Fratt, Whitewater, Wis. Age, 1 year. Registered in Wisconsin Spanish Merino registry.
No. 742.—Bred by F. W. Fratt, Whitewater, Wis. Age, 1 year. Registered in Wisconsin Spanish Merino registry.
No. 743.—Bred by F. W. Fratt, Whitewater, Wis. Age, 1 year. Registered in Wisconsin Spanish Merino registry.
No. 644–746, inclusive.—Bred by F. W. Fratt, Whitewater, Wis. Age, 2 years. Registered in Wisconsin Spanish Merino registry.
No. 762–769, inclusive.—Bred by O. Cook & Sons, Whitewater, Wis. Age, 2 years. Samples cut from the shoulder. Pure Spanish Merino, Vermont and Wisconsin State register.
No. 770. 771, inclusive.—Bred by O. Cook & Sons, Whitewater, Wis. Age, 3 years. Samples cut from the shoulder. Pure Spanish Merino, Vermont and Wisconsin State register.
No. 782–787, inclusive.—Bred by H. H. Cobb.
No. 782.—Age, 2 years.
No. 783.—Age, 2 years.
No. 784.—Age, 4 years.
No. 785.—Age, 4 years.
No. 786.—Age, 4 years.
No. 787.—Age, 2 years.

MINNESOTA.

RAMS.

No. 502–520, inclusive.—Bred by A. Willson, Richfield, Minn. The animals represented in this series were all 2 years old, and are registered in the American register.

EWES.

No. 482–501, inclusive.—Bred by A. Willson, Richfield, Minn. The animals represented in this series were all 2 years old, and are registered in the American register.

ILLINOIS.

RAMS.

No. 440.—Owned by George E. Peck & Sons, Geneva, Ill. Age, 3 years. Vermont register 315.
No. 441.—Owned by George E. Peck & Sons, Geneva, Ill. Age, 3 years. Vermont register 1.
No. 442.—Bred by George E. Peck & Sons, Geneva, Ill. Age, 2 years. Vermont register 405.
No. 445.—Bred by George E. Peck & Sons, Geneva, Ill. Age, 2 years. American register.
No. 446.—Bred by George E. Peck & Sons, Geneva, Ill. Age, 2 years. American register.
No. 447.—Bred by George E. Peck & Sons, Geneva, Ill. Age, 1 year. Vermont register.
No. 448.—Bred by George E. Peck & Sons, Geneva, Ill. Age, 1 year. Vermont register.
No. 449.—Bred by George E. Peck & Sons, Geneva, Ill. Age, 1 year. American register.
No. 450.—Bred by George E. Peck & Sons, Geneva, Ill. Age, 1 year. American register.
No. 451.—Bred by George E. Peck & Sons, Geneva, Ill. Age, 1 year. American register.
No. 452.—Bred by George E. Peck & Sons, Geneva, Ill. Age, 1 year. Vermont register.
No. 453.—Bred by George E. Peck & Sons, Geneva, Ill. Age, 1 year. American register.
No. 454.—Bred by George E. Peck & Sons, Geneva, Ill. Age, 1 year. Vermont register.
No. 455.—Bred by George E. Peck & Sons, Geneva, Ill. Age, 1 year. American register.
No. 456.—Bred by George E. Peck & Sons, Geneva, Ill. Age, 1 year. Vermont register.
No. 457.—Bred by George E. Peck & Sons, Geneva, Ill. Age, 1 year. American register.
No. 458.—Bred by George E. Peck & Sons, Geneva, Ill. Age, 1 year. American register.
No. 459.—Bred by George E. Peck & Sons, Geneva, Ill. Age, 1 year. Vermont register.
No. 460.—Bred by George E. Peck & Sons, Geneva, Ill. Age, 1 year. Vermont register.
No. 461.—Bred by George E. Peck & Sons, Geneva, Ill. Age, 1 year. American register.
No. 462.—Bred by George E. Peck & Sons, Geneva, Ill. Age, 1 year. American register.

EWES.

No. 443.—Bred by George E. Peck & Sons, Geneva, Ill. Age, 17 years. Vermont register.
No. 444.—Bred by George E. Peck & Sons, Geneva, Ill. Age, ———. Vermont register.
No. 463–469, inclusive. Bred by George E. Peck, Geneva, Ill. Age, 2 years. Vermont register.
No. 470–474, inclusive. Bred by George E. Peck, Geneva, Ill. Age, 2 years. American register.
No. 475.—Bred by George E. Peck, Geneva, Ill. Age, 3 years. Vermont register.
No. 476.—Bred by George E. Peck, Geneva, Ill. Age, 3 years. American register.
No. 477–480, inclusive.—Bred by George E. Peck, Geneva, Ill. Age, 1 year. Vermont register.
No. 481.—Bred by George E. Peck & Son, Geneva, Ill. Lamb. Vermont register.

TEXAS.

RAMS

Nos. 616–625, inclusive.—Bred by J. D. Keracy, Cottonwood Springs, Taylor, Texas. Age, 2 years. Spanish Merino.

EWES.

Nos. 605–615, inclusive.—Bred by J. D. Keracy, Cottonwood Springs, Taylor, Texas. Age, 2 years. Spanish Merino.

CALIFORNIA.

RAMS.

Nos. 634–640, inclusive.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 25 months. Spanish Merino.

EWES.

No. 438.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 4 years. Merino.
Nos. 626–629, inclusive.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 25 months. Spanish Merino. Have lambs sucking.
Nos. 630–633, inclusive.—Bred by Baechtel Brothers, Willits, Mendocino County, California. No lambs.
Nos. 641–644, inclusive.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 2 years. Spanish Merino. No lambs.
Nos. 645–648, inclusive.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 37 months. Lambs sucking, aged 5 weeks.
Nos. 649–655, inclusive.—Bred by E. W. Woolsley & Son, 418 California street, San Francisco, Cal. Fleece, 6 to 10 months' growth. Cut from fore shoulder. Spanish Merino.

GERMANY.

RAMS.

No. 879.—Bred by Otto Steiger, Leutwitz, near Meissen, Saxony, Germany. Weight of fleece, 21¼ pounds. Weight of carcass, 209 pounds.
No. 880.—Bred by Otto Steiger, Leutwitz, near Meissen, Saxony, Germany. Weight of fleece, 21.56 pounds. Weight of carcass, 209 pounds.
No. 881.—Bred by Otto Steiger, Leutwitz, near Meissen, Saxony, Germany. Weight of fleece, 21.45 pounds. Weight of carcass, 126.5 pounds.
No. 882.—Bred by Otto Steiger, Leutwitz, near Meissen, Saxony, Germany. Weight of fleece, 24.75 pounds. Weight of carcass, 242 pounds.
No. 883.—Bred by Otto Steiger, Leutwitz, near Meissen, Saxony, Germany. Weight of fleece, 25.3 pounds. Weight of carcass, 202.4 pounds.
No. 884.—Bred by Otto Steiger, Leutwitz, near Meissen, Saxony, Germany. Weight of fleece, 23.1 pounds. Weight of carcass, 231 pounds.
No. 885.—Bred by Otto Steiger, Leutwitz, near Meissen, Saxony, Germany. Weight of fleece, 25.3 pounds. Weight of carcass, 231 pounds.
No. 886.—Bred by Otto Steiger, Leutwitz, near Meissen, Saxony, Germany. Weight of fleece, 25.52 pounds. Weight of carcass, 243.1 pounds.
No. 887.—Bred by Otto Steiger, Leutwitz, near Meissen, Saxony, Germany. Weight of fleece, 22.55 pounds. Weight of carcass, 224.4 pounds.

EWE.

No. 878.—Bred by Otto Steiger, Leutwitz, near Meissen, Saxony, Germany. Weight of fleece, 17.6 pounds. Weight of carcass, 149.6 pounds.

NEGRETTI WOOLS FROM GERMANY SUBMITTED FOR EXAMINATION BY MR. E. W. PERRY, CHICAGO, ILL.

Nos. 400–422, inclusive.

CALIFORNIA.

WOOLS PRODUCED IN EXPERIMENTS IN CROSS-BREEDING.

RAMS.

No. 426.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 1 year. Buck, ⅞ Merino, 1/16 Southdown.
No. 427.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 1 year. Buck, ½ Merino, ½ Southdown.
No. 430.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 2 years. Buck, ¾ Merino, ¼ Southdown.
No. 434.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 1 year. Buck, ¾ Merino, ¼ Shropshire, ⅛ Southdown.
Nos. 818–827, inclusive.—Bred by Baechtel Brothers, Willits, Mendocino County, California. 15/16 Merino, 1/16 Shropshire, 1/16 Southdown. Yearling bucks.
Nos. 828–837, inclusive.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 2 years. ¾ Merino, ¼ Southdown.
Nos. 838–847, inclusive.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 1 year. Buck, ¾ Merino, ¼ Southdown.
Nos. 848–857, inclusive.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 1 year. Buck, ¼ Merino, ½ Shropshire, ¼ Southdown.
No. 436.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 4 years. Thoroughbred Shropshire buck.
No. 437.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 4 years. Thoroughbred Merino buck.
No. 439.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 1 year. Thoroughbred Merino buck.

EWES.

No. 425.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 1 year. $\frac{15}{16}$ Merino, $\frac{1}{16}$ Southdown (No. 1).
No. 428.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 1 year. $\frac{7}{8}$ Merino, $\frac{1}{8}$ Southdown (No. 4).
No. 429.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 3 years. $\frac{7}{8}$ Merino, $\frac{1}{8}$ Southdown. Dam, pure Merino. Sire, $\frac{3}{4}$ Merino, $\frac{1}{4}$ Southdown (No. 5).
No. 431.—Bred by Baechtel Brothers, Willits, Mendocino County, California. $\frac{3}{4}$ Merino, $\frac{1}{4}$ Southdown. 2 years old (No. 7).
No. 432.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 5 years. $\frac{1}{2}$ Merino, $\frac{1}{2}$ Southdown (No. 8).
No. 433.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 1 year. $\frac{3}{8}$ Merino, $\frac{3}{8}$ Shropshire, $\frac{1}{4}$ Southdown (No. 9).
No. 435.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 1 year. $\frac{3}{4}$ Merino, $\frac{1}{4}$ Southdown (No. 11).
No. 788–797, inclusive.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 1 year. $\frac{9}{16}$ Merino, $\frac{4}{16}$ Shropshire, $\frac{3}{16}$ Southdown.
No. 798–806, inclusive.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 2 years. $\frac{3}{8}$ Merino, $\frac{3}{8}$ Shropshire, $\frac{1}{4}$ Southdown.
No. 808–817, inclusive.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 1 year. $\frac{3}{8}$ Merino, $\frac{3}{8}$ Shropshire, $\frac{2}{8}$ Southdown.
No. 858–867, inclusive.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 7 years. $\frac{1}{2}$ Merino, $\frac{1}{2}$ Southdown.
No. 868–877, inclusive.—Bred by Baechtel Brothers, Willits, Mendocino County, California. Age, 1 year. $\frac{3}{4}$ Merino, $\frac{1}{4}$ Southdown.

EXAMINATION OF THE MATERIAL AND TABULATION OF RESULTS.

The material described in the catalogue was examined in exactly the same way as that represented and described in the previous report. The object was the determination of all properties that might be affected by the conditions to which the animals had been subject, but more especially the relations of the fineness, strength, and elasticity of the fiber corresponding to all conditions. These are the principal qualities upon which the ultimate value of wool for manufacturing purposes and for ordinary consumption depends, and we have therefore confined ourselves to them. The methods employed have already been described, but a brief review of them may not be superfluous. In making the measurements of fineness the sample under examination was taken from its case, a small lock separated from it and cut into three sections of about equal length, each of which was mounted upon a glass slide. Each slide was labeled to correspond with the number of the sample and the portion of the lock. Then with a microscope with a magnifying power of about 200 diameters and an eye-piece micrometer that was standardized by means of a stage micrometer the width of the image of each of 50 fibers on each plate was carefully measured. Each measurement was recorded and the average of the 50 measurements determined. In this way 150 measurements were taken for each sample.

The results thus secured were recorded in a table in which three columns were provided for each sample. Each of these columns was headed with the inscription of the slide represented, and in it were entered the data secured for the appropriate section of the lock examined. At the foot of each column was entered the sum of all the measurements recorded in it, and from this the average for the column was calculated. Then at the bottom of the table was arranged a sub-table in which were collected in one part the highest measurements found in each column, in another part the lowest measurements, and in a third the average measurements. Then from each of these series of three were determined the extreme maximum, the extreme minimum, and the general average for the sample. All of these figures were reduced from the centimillimeters of the French standard in which they were taken to thousandths of an inch and fractions of an inch of the English standard that would make them more readily intelligible to the average breeder and manufacturer.

In this table it is possible to compare the several samples with regard to what is generally understood as trueness or evenness of the fiber throughout its length. We have here the figures for three parts of the fiber in the direction of its length. In the true or even fiber we should have nearly the same average in all. In uneven fibers the average for each will vary, and the differences are sometimes so marked that when several sections for any given lock are thus made and measured it is almost possible to determine the condition of health of the animal producing it at a given time. We have not undertaken to trace these variations in our work, but have made the data a matter of record, so that any one desiring to do so can take them up and make a detailed comparison. As an instance of these differences we may take at random the figures for samples 525, 534, 543, and 423, expressed in centimillimeters, thus:

Sample.	B^1.	B^2.	B^3.
525	2.36	2.48	2.49
[illegible]	1.58	1.81	1.975
[illegible]	1.923	1.795	1.865
423	2.22	2.05	2.203

We see here variations ranging from 5 to 15 per cent. of the total diameter of the fiber. In many cases the variations are much wider than this.

The same variations are found in the extremes for each sample; so that all the figures given in these tables are of value in the study of their relations. The extremes serve also to show the evenness of the sample as regards the several fibers constituting it; and this is also indicated in the figures given at the bottom of the table showing the number of measurements for the sample found above the average and below it. Since these variations are frequently due to exposure or neglect, or even to defective constitution, rendering the animal more subject to the effect of these influences, results of the kind just mentioned will furnish data for profitable study.

The strain and stretch the fibers were capable of sustaining previous to rupture were taken with the dynamometer described in the former report. To prepare the fibers for being tested, a small lock was taken from each sample and carefully washed with ether to remove the grease and dirt and cleanse it. It was then placed upon the table in front of the instrument, and fibers drawn from it at random. In placing the fiber in the instrument for the test, that end nearest the root of the fiber was inserted to the upper clamp. Strain was gradually applied until rupture occurred; and the power required to effect it, and the stretch suffered, were recorded. In this way the number of fibers tested for each sample was 50, this number having been found necessary, but, at the same time, all-sufficient for the determination of the true average for the sample. The result of each test was entered in a column in the table provided for it; the extremes and averages, as well as the number of tests above and below the average, entered at the bottom of the table. So also, to render the results more intelligible, the strains were reduced from grams to grains, and the stretch from millimeters in a length of 20 millimeters to percentage of the length. In all cases a length of 20 millimeters was subjected to test, since, all things considered, this was found to be the most desirable. A greater or less length would have given a different result; but that obtained for the length chosen had been found to give results that were very nearly averages for the results for the different lengths; that is to say, reference to the former report will show that with a length of 10 millimeters the percentage of stretch was greater than with a length of 20 millimeters, and that as the length of fiber tested increased there was a decrease of the percentage of stretch. The strain remained about the same. So then the stretch for 20 millimeters, being about the average of the stretch for the different lengths, and because of its convenience, that length was chosen for the length to be used in all tests; so that the latter are fairly comparable.

The tables of measurements of fineness and of strain and stretch, giving the results thus in detail, furnish the data for the construction of the subsequent tables. In the first place the extremes and averages for each sample are collected in single tables, one for fineness and another for strain and stretch. And in these tables are entered the number of crimps per inch in each sample showing the relation of closeness of crimp to the quality of fineness. In the tables thus prepared the variations in the fibers constituting the sample and the variations in the samples constituting a group are fully shown. From these tables the averages for each sample, both for fineness and for strain and stretch, are brought together in a single table in which all the relations of general importance are brought out.

The value of Merino wools as related to each other manifestly depends upon first the fineness, which determines the class of goods into which they may enter, and second upon their ultimate strength and tenacity. All these qualities are of capital importance, and one is of no value, or at least is of little value, without the other. In the present work, therefore, we have made the relation between all these qualities the basis of the comparison.

We have, then, as the basis of value: (1) Fineness; (2) Ultimate tenacity or resistance; (3) The relation between the ultimate resistance and elasticity.

(1) *Fineness.*—This is a simple matter. It is represented in the diameter measured as already described, and is set forth in the final table in the general average for that quality.

(2) *Ultimate tenacity or resistance.*—This determines the strength of the staple, and in the results secured in each test with the dynamometer it seems to vary widely from fiber to fiber and from sample to sample, and a comparison between them becomes possible only when the fibers compared happen to be of the same diameter. It becomes necessary to reduce the results of the specific tests to figures which correspond to strains for samples having a common diameter, and this diameter we have abitrarily assumed to be 4 centimillimeters, because this was chosen in previous experiments with coarser wools. This diameter is considerably greater than is ever found in good Merino wools, but it will serve our purpose in the comparisons we shall have to make, and will make it possible to compare the present results with those already reported. The formula for this reduction is made as follows:

Let 4 centimillimeters = D' the assumed common diameter.

Let D = the average diameter of fiber for the sample.

Let S = the average actual tensile strain necessary to rupture.

Let S' = equal the tensile strains necessary to rupture of a similar fiber with a diameter D' or 4 centimillimeters.

Then since the strains will be to each other as the squares of the diameters of the corresponding fibers, we have the proportion

$$D^2 : (D')^2 :: S : S'$$

and

$$S' = \frac{(D')^2 S}{D^2} \text{ or } \frac{16\,S}{D^2}$$

Now if we substitute for D and S in the formula we may obtain the corresponding theoretical strain required to produce rupture of a fiber having the common diameter, 4 centimillimeters. Take as an example the averages for sample No. 555; D=2.237, S=5.63. Substituting these values in the formula we have

$$\frac{16\times 5.63}{(2.237)^2}=18.001 \text{ grams.}$$

This affords a means for the direct comparison of each sample as regards the ultimate resistance to rupture. It is expressed in grams for an area having a diameter of 4 centimillimeters, but to very many it will be more acceptable and more readily comprehended if expressed in corresponding pounds per square inch of section, and we have made the calculations necessary to this end. This value is obtained as follows:

Let S=the average ultimate tensile resistance of the fibers tested and belonging to a single sample in grams.

Let D=the average diameter of fiber for that sample in centimillimeters.

Then $\frac{\pi D^2}{4}$=the sectional area of fiber in square centimillimeters.

In a square millimeter there are $100\times 100=10{,}000$ square centimillimeters.

Hence, 1 gram per square centimillimeter=10,000 grams=10 kilograms per square millimeter.

And since 1 kilogram per square millimeter=1422.30786 pounds per square inch, 1 gram per square centimillimeter=14223.0786 pounds per square inch of section of fiber.

The general formula for the reduction will therefore be as follows:

$$\frac{4\,S}{\pi D^2}\times 14223.=18109\,\frac{S}{D^2}=R=$$

the ultimate resistance of the sample per square inch.

As an example of the application of the formula we may take the figures for sample No. 555, as before. Here D=2.237 centimillimeters, S=5.58 grams. And substituting these values in the formula we have $18109\times\frac{5.58}{(2.237)^2}=$ 20372=the ultimate resistance of the sample in pounds per square inch of cross-section.

The results obtained by this formula may be usefully employed in making comparisons of a certain class in which the elasticity of the fiber need not be taken into account. But in a material, the value of which depends so largely upon this quality, it cannot be ignored. This relation is expressed in the modulus of elasticity or the ratio between the ultimate resistance and the stretch suffered under the corresponding strain. This may be found as follows:

Let E=the modulus of elasticity for the sample.

Let R=the average tensile resistance of fibers in pounds per square inch $\left(=18109\,\frac{S}{D^2}\right)$

Let P=the per cent. of stretch expressed in decimal form.

Then the general formula becomes

$$E=\frac{R}{P}$$

Applying this formula to sample 555, as before, we have

$$R=20372;\ P=.2790$$

Then

$$E=\frac{20372}{.2790}=73720$$

If with a given percentage of stretch we have a higher strain there must be an increase in the modulus of elasticity, or with a given strain and a higher percentage of stretch there must be a decrease in the modulus of elasticity. It is plain, therefore, that the ultimate value of wool for manufacturing purposes must depend upon this modulus, and vary directly with it. The higher the modulus of elasticity the higher the value of the wool for all purposes, fineness left out of consideration. That is to say, the wool which requires the high strain to produce a given stretch must be ultimately stronger than that which requires a lower strain for the same purpose. This factor, therefore, we have made especial use of in our comparison of values of the wools from the different sections.

With these formulæ computations of value have been made for each sample tested, and the results have been entered in the table of general results of all measurements. In all these calculations it has been assumed that the fibers have a cylindrical form, which from the system of measurement of fineness is practically true. The averages of these computations represent the ultimate values of the fiber for each class and each section, and constitute the final table of the series.

The tables of results obtained both in measurement and computation in this investigation have been arranged in the following order:

THOROUGHBRED AMERICAN MERINO WOOLS.

TABLE I.—Detailed results of measurements of fineness:
- A.—Wools of Vermont.
- B.—Wools of New York.
- C.—Wools of Pennsylvania.
- D.—Wools of Wisconsin.
- E.—Wools of Minnesota.
- F.—Wools of Illinois.
- G.—Wools of Texas.
- H.—Wools of California.

TABLE II.—Detailed measurements of strain and stretch:
- A.—Wools of Vermont.
- B.—Wools of New York.
- C.—Wools of Pennsylvania.
- D.—Wools of Wisconsin.
- E.—Wools of Minnesota.
- F.—Wools of Illinois.
- G.—Wools of Texas.
- H.—Wools of California.

TABLE III.—Extremes and average of fineness:
- A.—Wools of Vermont.
- B.—Wools of New York.
- C.—Wools of Pennsylvania.
- D.—Wools of Wisconsin.
- E.—Wools of Minnesota.
- F.—Wools of Illinois.
- G.—Wools of Texas.
- H.—Wools of California.

TABLE IV.—Extremes and averages of strain and stretch:
- A.—Wools of Vermont.
- B.—Wools of New York.
- C.—Wools of Pennsylvania.
- D.—Wools of Wisconsin.
- E.—Wools of Minnesota.
- F.—Wools of Illinois.
- G.—Wools of Texas.
- H.—Wools of California.

THOROUGHBRED AMERICAN MERINO WOOLS—Continued.

TABLE V.—General results of all measurements, fineness, strain and stretch, and of corresponding computations for ultimate tensile resistance and moduli of elasticity:
- A.—Wools of Vermont.
- B.—Wools of New York.
- C.—Wools of Pennsylvania.
- D.—Wools of Wisconsin.
- E.—Wools of Minnesota.
- F.—Wools of Illinois.
- G.—Wools of Texas.
- H.—Wools of California.
- I.—Collected averages of the general results of all measurements and computations for each section.

GERMAN MERINO WOOLS.

TABLE VI.—Detailed measurements of fineness:
- A.—Negrette wools. E. W. Perry.
- B.—Saxony wools. E. Steiger.

TABLE VII.—Detailed measurements of strain and stretch:
- A.—Negrette wools. E. W. Perry.
- B.—Saxony wools. E. Steiger.
- C.—Extremes and averages of fineness of German wools.
- D.—Extremes and averages of strain and stretch for German wools.

TABLE VIII.—General results of all measurements and computations:
- A.—Negretti wools.
- B.—Saxony wools.

CROSS-BRED WOOLS FROM CALIFORNIA.

TABLE IX.—Detailed measurements of fineness.

TABLE X.—Detailed measurements of strain and stretch.

TABLE XI.—Extremes and averages of fineness.

TABLE XII.—Extremes and averages of strain and stretch.

TABLE XIII.—General results of all measurements and computations.

TABLE XIV.—General averages of all measurements and computations.

AMERICAN MERINO WOOLS.

TABLE I.—*Measurements of fineness of wools.*

VERMONT.

Catalogue number of samples	RAMS, 2 YEARS OLD.												RAMS, 3 YEARS OLD.					
	423.			525.			534.			543.			526.			530.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.375	2.00	2.25	2.50	2.50	2.125	1.50	2.00	3.00	2.00	2.00	2.00	2.125	2.50	3.00	2.00	2.125	2.375
	1.875	1.875	2.50	2.00	2.50	2.25	1.875	1.75	1.75	1.75	1.75	1.75	2.00	2.50	3.00	2.125	2.25	2.50
	2.375	2.00	2.125	1.50	2.50	2.125	2.375	2.00	1.625	1.50	1.50	1.50	2.00	3.00	2.25	2.00	2.00	2.00
	2.25	2.375	2.25	2.25	2.625	2.50	1.50	1.75	2.125	2.25	2.50	2.25	2.25	2.00	2.50	2.625	1.50	1.875
	2.50	2.00	2.25	2.00	2.25	2.50	1.625	1.625	1.875	1.625	1.875	1.875	2.125	2.125	2.00	2.00	2.25	2.50
	2.375	2.00	2.50	2.50	3.125	2.25	1.25	2.00	1.625	2.00	2.125	1.625	2.00	3.75	2.00	2.00	2.375	2.00
	2.00	1.75	2.50	2.00	2.625	2.50	1.875	1.50	2.125	1.75	1.25	2.25	2.00	2.375	2.25	2.00	1.875	2.50
	2.375	2.00	2.25	2.25	3.00	2.50	1.125	1.625	2.125	2.00	1.50	1.50	3.00	2.00	3.375	2.25	1.875	3.00
	1.875	2.50	2.50	2.50	2.75	3.00	2.125	2.00	1.25	2.25	1.75	1.75	1.875	2.00	3.00	2.00	2.50	2.50
	2.375	2.00	2.00	2.25	2.50	2.25	1.625	1.75	1.75	2.375	2.00	2.00	1.75	1.875	2.00	1.50	2.25	1.50
	2.00	2.375	2.50	2.50	2.875	2.00	1.375	1.75	2.00	1.625	2.00	2.00	2.00	2.50	3.125	3.00	1.50	1.625
	2.50	1.75	2.625	2.25	3.00	2.50	2.00	2.00	3.125	1.50	1.75	1.75	2.00	2.125	2.00	2.125	2.50	2.00
	3.00	1.00	2.25	3.00	2.50	1.875	2.50	2.00	2.50	2.00	1.50	1.50	2.50	2.25	2.50	2.00	2.00	1.75
	2.75	2.00	2.00	2.00	2.00	2.50	2.00	1.625	2.00	1.75	1.875	2.50	2.25	2.50	2.25	2.25	2.25	2.00
	2.00	2.125	1.75	2.50	2.50	2.00	1.50	2.00	2.00	2.00	1.875	1.875	2.00	2.50	1.375	2.50	2.00	2.00
	2.00	2.375	1.75	2.50	2.00	2.00	1.25	1.875	1.75	2.00	1.875	1.875	2.25	2.75	2.75	2.125	1.875	1.875
	2.375	2.375	2.375	3.50	2.00	2.00	1.25	1.75	1.875	1.75	1.50	2.25	2.00	2.50	2.25	2.00	2.00	1.625
	2.00	2.00	2.125	2.00	2.50	2.00	1.50	1.875	1.50	2.00	1.50	1.50	2.125	3.25	2.125	1.50	2.00	3.00
	2.50	2.125	2.00	2.625	2.00	2.00	1.625	1.50	2.25	1.50	1.75	1.75	3.00	2.25	1.50	2.25	2.00	1.75
	2.00	2.00	2.25	3.00	2.00	3.00	1.25	1.75	2.00	1.875	2.00	2.00	3.50	2.375	2.75	2.50	1.625	2.00
	2.50	2.00	2.375	2.375	2.125	2.50	1.625	2.75	1.75	2.125	2.00	2.00	3.00	2.25	3.50	2.125	2.00	2.125
	1.875	2.00	2.125	3.00	2.75	3.125	1.375	1.75	2.00	1.50	1.75	1.75	1.875	2.375	1.625	1.75	1.75	2.375
	2.00	1.875	2.25	2.125	2.00	3.25	1.50	2.25	2.00	1.50	1.50	2.00	1.50	2.00	2.50	2.375	1.50	2.50
	2.00	1.50	1.625	2.00	2.00	2.875	1.50	1.625	1.75	1.75	1.50	1.50	2.00	2.50	2.375	2.625	2.00	2.50
	2.00	2.00	2.50	1.50	2.50	3.00	1.50	1.625	1.50	2.00	1.625	1.875	1.75	2.25	2.50	1.75	2.00	3.00
	1.875	1.875	2.50	2.25	3.375	2.50	1.125	1.50	3.00	2.00	2.375	1.875	2.00	2.25	2.50	1.875	2.00	3.50
	1.75	2.375	2.25	2.50	2.125	2.75	1.50	1.875	1.75	1.75	1.50	2.00	2.125	2.875	1.875	2.125	1.875	2.50
	2.00	2.00	2.375	2.25	2.75	2.00	1.75	2.625	1.625	2.00	1.50	2.00	2.375	2.00	2.625	3.125	1.625	2.00
	2.50	2.375	2.125	2.125	2.00	3.50	1.375	1.75	1.75	1.75	1.75	1.75	3.00	2.25	1.75	2.25	2.50	2.25
	2.00	2.25	2.00	2.50	3.00	3.00	1.375	2.00	1.50	3.625	2.00	2.00	2.50	2.00	2.00	2.00	1.50	2.25
	2.00	1.625	2.00	2.00	2.50	2.00	2.00	2.125	2.00	1.625	2.00	2.00	2.00	2.50	2.25	2.00	2.00	2.125
	2.50	2.50	2.125	1.75	2.50	3.00	1.375	1.75	1.75	1.875	1.75	1.75	2.00	2.50	2.50	1.50	2.125	1.75
	2.00	1.75	2.50	2.50	2.25	2.00	1.50	1.75	1.625	2.00	1.50	1.50	2.00	2.00	2.875	2.00	2.00	1.875
	2.50	1.875	2.125	2.25	2.50	2.50	1.375	1.625	1.625	1.75	1.875	1.50	1.875	2.00	3.00	2.75	2.00	2.00
	2.50	2.00	2.25	2.25	2.25	2.25	1.50	1.50	2.50	2.00	1.875	1.625	1.875	1.75	2.00	1.875	2.00	2.125
	2.50	2.50	2.00	2.50	2.125	2.125	1.50	1.75	1.625	2.00	1.875	1.625	2.00	2.50	2.50	2.25	2.25	3.25
	2.50	2.125	2.25	2.50	3.375	3.00	1.50	1.75	1.50	1.75	2.50	1.75	2.625	2.125	2.125	2.25	1.625	2.625
	3.25	2.375	1.875	2.25	1.625	3.00	1.375	1.75	2.50	2.50	1.50	2.00	2.00	2.25	2.00	1.50	1.75	2.25
	2.75	1.875	2.00	1.625	2.125	3.00	1.00	1.50	1.875	2.00	1.75	1.75	2.125	2.50	3.50	1.50	1.75	2.00
	2.50	2.50	1.875	2.50	2.75	2.25	2.375	1.625	2.00	2.375	2.00	2.00	2.375	2.50	3.50	2.00	2.00	2.625
	2.00	2.125	2.25	2.875	2.25	2.75	1.375	2.00	2.00	1.625	2.00	2.00	2.125	2.00	2.375	2.125	1.50	2.00
	2.00	2.125	1.875	2.25	3.00	2.875	1.375	1.75	1.875	2.00	1.75	1.75	2.50	2.875	2.00	2.00	1.50	2.00
	2.00	2.00	2.625	3.00	2.50	3.00	1.875	2.00	2.50	2.00	1.50	1.50	1.75	2.25	2.25	1.50	1.625	2.50
	2.25	1.875	2.50	2.75	3.00	2.875	1.375	1.50	3.00	1.75	1.50	2.00	2.00	2.125	1.875	2.00	1.625	1.50
	1.50	2.25	1.625	2.00	4.00	2.375	2.50	1.75	1.875	2.00	2.375	2.00	1.875	2.50	3.375	2.125	1.75	2.00
	1.75	1.875	2.50	2.125	2.625	2.50	1.50	1.75	2.375	2.00	1.625	2.50	2.00	2.50	1.625	1.75	1.875	2.375
	1.875	2.25	2.25	2.50	2.00	2.25	1.50	2.00	1.75	1.75	1.50	2.00	1.125	2.125	2.125	2.125	2.75	1.75
	2.00	1.875	2.375	2.50	2.375	2.25	1.625	2.125	2.00	2.00	1.50	2.00	2.125	2.50	2.75	1.50	1.75	2.625
	2.125	2.00	2.75	2.50	1.75	2.00	1.25	1.50	2.00	1.75	2.00	1.75	2.50	3.50	2.00	2.00	2.00	1.75
	2.375	2.125	1.50	3.00	2.00	2.25	1.375	1.50	1.50	1.875	2.00	2.00	3.75	2.00	2.00	2.00	2.25	2.375
Totals	110.875	102.500	110.125	117.875	123.875	124.50	79.00	90.875	98.75	96.125	89.75	93.25	111.50	118.875	119.875	102.50	97.625	108.875

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	3.25	1.2795	B′	3.50	1.3779	B′	2.50	0.9842	B′	3.625	1.4271	B′	3.75	1.4763	B′	3.125	1.2303
	B″	2.50	1.0842	B″	4.00	1.5748	B″	2.75	1.0826	B″	2.50	0.9842	B″	3.75	1.4763	B″	2.75	1.0825
	B‴	2.75	1.0826	B‴	3.50	1.3779	B‴	3.125	1.2303	B‴	2.50	0.9842	B‴	3.50	1.3779	B‴	3.50	1.3779
Highest		3.25	1.2795		4.00	1.5748		3.125	1.2303		3.625	1.4271		3.75	1.4763		3.50	1.3779
Minimum measurements.	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.00	0.3937	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.50	0.5905
	B″	1.00	0.3937	B″	1.625	0.6397	B″	1.50	0.5905	B″	1.25	0.4921	B″	1.75	0.6889	B″	1.50	0.5905
	B‴	1.50	0.5905	B‴	1.75	0.6889	B‴	1.25	0.4921	B‴	1.50	0.5905	B‴	1.375	0.5413	B‴	1.50	0.5905
Lowest		1.00	0.3937		1.50	0.5905		1.00	0.3937		1.25	0.4921		1.375	0.5413		1.50	0.5905
Average measurements.	B′	2.22	0.8740	B′	2.36	0.9291	B′	1.58	0.6220	B′	1.923	0.7570	B′	2.23	0.8779	B′	2.05	0.8070
	B″	2.05	0.8070	B″	2.48	0.9763	B″	1.81	0.7125	B″	1.795	0.7666	B″	2.38	0.9370	B″	1.95	0.7677
	B‴	2.203	0.8673	B‴	2.49	0.9803	B‴	1.975	0.7775	B‴	1.865	0.7342	B‴	2.395	0.9429	B‴	2.17	0.8543
Average		2.157	0.8492		2.443	0.9618		1.788	0.7039		1.861	0.7326		2.335	0.9192		2.056	0.8094
Measurements above average			67			79			59			79			62			62
Measurements below average			83			71			91			71			88			88

TABLE I.—*Measurements of fineness of wools*—Continued.

	VERMONT.																	
	RAMS, 3 YEARS OLD.																	
Catalogue number of samples	533.			535.			537.			540.			545.			554.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.50	2.125	2.00	2.125	3.25	2.125	1.75	2.50	1.75	2.00	2.00	2.00	1.75	2.25	1.75	2.25	2.00	2.00
	2.00	2.75	2.125	1.875	1.75	2.00	1.50	2.50	1.75	1.75	3.00	2.25	1.625	2.50	1.50	2.00	1.75	2.00
	1.75	2.00	2.375	3.125	2.50	3.00	1.875	2.375	2.00	2.75	1.75	1.75	2.25	2.75	1.75	1.625	2.38	1.50
	1.50	1.50	2.125	2.25	2.50	2.50	1.875	1.75	2.00	1.50	1.50	2.38	2.125	2.125	2.125	2.00	1.75	2.38
	1.125	1.875	2.125	1.50	2.25	2.25	2.00	2.00	2.25	1.875	1.875	2.625	1.75	2.38	2.375	1.75	2.00	2.00
	2.00	2.125	2.25	1.875	1.50	1.75	1.75	1.375	1.875	2.00	2.00	2.00	1.75	2.625	2.25	2.125	2.00	1.75
	1.00	2.375	2.375	2.50	2.25	2.25	1.875	2.375	1.875	2.00	1.75	2.50	1.50	2.625	2.125	1.875	1.75	2.50
	1.625	1.625	1.75	2.375	2.00	2.00	1.50	2.00	1.375	2.00	3.50	2.25	1.375	2.625	2.50	2.375	1.50	2.00
	1.50	1.875	2.75	2.25	2.25	2.75	1.875	1.875	1.50	3.50	1.38	2.50	1.50	2.25	1.75	2.50	2.00	2.50
	2.00	2.00	2.375	2.75	1.75	2.25	1.375	2.00	1.50	1.875	1.875	2.375	1.375	2.25	2.00	2.125	1.75	2.00
	1.50	2.25	2.375	1.75	2.25	2.25	1.875	2.00	2.00	2.00	2.00	2.00	1.375	2.25	2.00	1.875	1.875	2.00
	1.25	2.25	1.875	2.00	2.00	1.875	2.00	1.50	2.00	1.50	2.50	2.50	1.625	3.00	1.75	2.50	2.25	2.00
	2.375	2.00	2.625	1.625	2.875	3.125	1.75	2.00	2.125	1.50	1.75	2.25	1.75	2.50	2.125	2.125	2.00	2.25
	2.00	1.50	2.125	2.00	2.50	2.50	2.00	1.75	1.75	2.50	2.50	2.00	1.875	2.00	2.25	1.875	1.50	1.625
	1.625	1.875	2.125	2.00	1.75	3.00	2.00	1.625	2.00	2.125	2.125	1.625	2.38	3.00	1.75	1.625	1.50	1.50
	1.25	1.625	1.875	1.875	1.875	2.25	1.75	1.875	2.00	2.00	2.00	2.00	2.125	2.00	1.25	1.625	2.25	2.125
	2.50	1.875	2.75	2.50	3.00	2.375	2.25	1.50	1.75	1.75	1.50	2.50	1.875	2.50	1.125	1.875	2.50	1.625
	1.625	2.00	2.125	2.125	3.50	2.50	1.50	1.75	2.00	1.75	1.75	3.25	1.50	3.00	1.375	1.875	2.25	2.75
	3.00	1.875	2.25	2.00	2.50	2.25	1.75	2.00	2.125	2.50	2.50	3.00	2.00	1.50	1.50	2.00	2.50	3.00
	2.00	1.375	2.00	2.00	1.50	2.00	2.25	2.00	2.00	1.375	1.625	1.875	2.00	2.75	1.875	2.50	2.00	1.625
	1.75	1.75	2.00	2.00	1.75	2.25	2.00	2.375	2.00	2.00	2.00	2.00	2.125	2.25	3.25	2.75	2.125	2.25
	2.00	2.375	2.875	2.50	2.125	3.00	1.75	2.875	2.00	1.50	1.25	1.50	2.00	2.25	1.375	2.50	2.50	2.875
	1.50	2.00	2.75	1.625	2.375	2.875	2.50	1.75	1.50	1.375	1.75	2.25	2.50	2.125	1.00	2.00	1.75	2.737
	2.00	1.00	2.375	2.50	2.50	2.00	1.75	1.875	1.75	2.00	2.50	2.00	3.00	1.875	2.00	2.625	1.875	2.375
	1.625	3.75	2.625	2.25	2.00	2.00	2.25	1.75	1.875	1.625	1.625	2.375	2.625	2.25	1.625	2.25	2.00	2.00
	1.875	2.325	1.625	1.50	2.25	2.00	2.00	1.625	2.00	2.00	2.00	2.00	2.50	2.00	2.125	1.875	1.75	2.125
	1.00	1.875	2.25	2.125	2.50	2.25	2.25	2.00	2.00	2.50	1.50	2.50	1.25	2.25	1.625	2.00	2.50	2.00
	2.50	1.75	2.375	2.125	1.75	3.00	1.875	2.00	2.00	1.875	1.875	1.875	2.00	1.75	2.00	2.125	2.25	2.375
	1.25	1.50	2.75	1.75	2.00	2.00	2.00	2.50	1.875	2.00	2.00	3.125	1.75	2.125	1.75	2.00	2.50	2.50
	1.625	2.875	2.00	2.375	2.50	2.50	2.00	1.75	1.50	1.875	1.875	2.00	1.875	2.00	1.75	2.125	1.625	1.875
	1.50	1.625	2.00	2.50	2.00	2.00	2.00	2.50	1.875	2.00	2.00	2.125	2.00	2.00	2.125	2.125	2.375	1.90
	1.50	1.875	2.00	2.50	2.00	2.50	1.75	2.125	2.00	1.50	1.50	3.00	1.875	2.125	2.25	2.50	2.25	1.875
	1.875	1.50	2.50	1.75	2.00	2.00	1.50	1.50	2.00	2.00	1.75	2.50	1.625	2.25	1.625	2.00	2.50	2.50
	2.25	2.875	3.125	2.00	2.50	2.50	2.00	1.75	2.00	2.00	2.25	1.875	1.50	2.25	1.875	2.25	2.00	2.50
	1.625	2.50	2.25	1.875	2.375	2.50	2.25	2.00	1.75	1.875	1.625	2.00	1.50	2.25	2.25	2.00	2.00	2.00
	2.00	2.375	2.125	2.00	2.50	3.00	1.75	1.75	1.875	2.00	2.00	2.125	1.625	2.50	2.00	2.00	1.875	1.875
	2.00	1.25	2.50	2.375	2.50	2.50	1.75	2.25	1.50	2.75	2.50	2.00	1.75	2.00	2.125	2.25	1.75	2.00
	1.25	1.625	2.625	1.875	2.50	1.75	2.00	2.25	1.50	1.75	1.875	2.50	2.125	2.00	1.75	2.375	2.00	2.00
	1.75	2.25	2.25	3.00	2.00	1.625	1.75	2.00	2.00	1.50	1.875	1.75	1.625	2.125	2.125	1.75	2.25	2.25
	1.875	1.50	1.875	1.875	2.50	2.40	2.25	2.00	2.25	1.875	1.625	1.50	1.625	2.50	2.25	2.25	2.125	2.00
	1.50	1.50	2.375	2.00	3.25	2.25	1.50	2.00	1.625	2.00	2.00	1.875	2.25	2.50	1.75	1.50	1.50	2.75
	2.00	1.875	1.875	1.75	2.00	1.75	2.00	2.00	2.125	1.50	2.50	2.00	2.50	2.125	2.00	2.125	1.625	2.375
	1.875	2.25	2.125	2.50	3.25	2.50	2.00	1.75	1.50	1.75	2.375	2.50	2.25	2.50	1.50	1.625	1.50	2.00
	1.875	1.50	2.375	2.625	2.50	2.75	1.875	1.50	1.50	2.00	1.75	1.875	2.50	1.625	1.50	2.00	1.625	2.50
	1.50	1.875	2.375	1.875	2.625	2.50	1.75	2.00	2.00	1.875	2.625	2.00	2.125	2.00	2.375	2.00	2.00	1.25
	1.75	2.00	1.125	2.00	2.50	1.872	2.00	1.75	1.50	2.00	2.00	1.875	1.50	2.00	1.00	2.25	2.125	2.50
	1.625	1.875	2.125	2.125	2.25	2.50	2.00	2.25	2.50	2.50	2.25	2.00	2.00	2.50	1.50	2.08	2.75	2.25
	1.875	1.75	2.25	2.125	3.00	2.25	2.125	1.875	2.00	1.75	1.75	2.50	2.25	2.50	2.125	2.00	2.25	2.125
	1.75	1.50	2.125	1.75	2.00	2.00	2.00	1.50	2.00	1.50	1.75	1.50	2.25	2.75	1.25	1.125	1.875	2.50
	2.00	1.625	1.875	2.00	1.50	2.25	2.00	1.50	1.75	1.375	1.375	2.00	1.50	2.00	1.625	1.75	2.50	2.375
Totals	87.75	97.00	112.875	103.625	115.75	115.875	95.125	97.50	93.375	97.50	90.50	108.875	94.75	113.375	93.625	103.125	101.375	107.37

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	3.00	1.1811	B′	3.25	1.2795	B′	2.50	0.9842	B′	3.50	1.3779	B′	3.00	1.1811	B′	2.75	1.0826
	B″	3.75	1.4763	B″	3.50	1.3779	B″	2.875	1.1318	B″	3.50	1.3779	B″	3.00	1.1811	B″	2.75	1.0826
	B‴	3.125	1.2303	B‴	3.125	1.2303	B‴	2.50	0.9842	B‴	3.25	1.2795	B‴	3.25	1.2795	B‴	2.875	1.1318
Highest		3.75	1.4763		3.50	1.3779		2.875	0.1318		3.50	1.3779		3.25	1.2795		2.875	1.1318
Minimum measurements.	B′	1.00	0.3937	B′	1.50	0.5905	B′	1.375	0.5413	B′	1.375	0.5413	B′	1.25	0.4921	B′	1.125	0.4429
	B″	1.00	0.3937	B″	1.50	0.5905	B″	1.375	0.5413	B″	1.375	0.5413	B″	1.50	0.5905	B″	1.50	0.5905
	B‴	1.625	0.6397	B‴	1.625	0.6397	B‴	1.375	0.5413	B‴	1.50	0.5905	B‴	1.00	0.3937	B‴	1.50	0.5905
Lowest		1.00	0.3937		1.50	0.5905		1.375	0.5413		1.375	0.5413		1.00	0.3937		1.125	0.4429
Average measurements.	B′	1.75	0.6889	B′	2.11	0.8307	B′	1.903	0.7492	B′	1.95	0.7677	B′	1.895	0.7461	B′	2.002	0.8118
	B″	1.95	0.7677	B″	2.31	0.0094	B″	1.95	0.7677	B″	1.99	0.7834	B″	2.268	0.8929	B″	2.028	0.7984
	B‴	2.25	0.8858	B‴	2.318	0.9125	B‴	1.868	0.7354	B‴	2.177	0.8570	B‴	1.87	0.7362	B‴	2.147	0.8452
Average		1.883	0.7807		2.245	0.8838		1.906	0.7503		2.039	0.8027		2.011	0.7917		2.079	0.8183
Measurements above average			69			70			78			45			68			68
Measurements below average			70			71			72			105			82			82

TABLE I.—*Measurements of fineness of wools*—Continued.

	VERMONT.																	
	RAMS, 3 YEARS OLD.						EWES, 2 YEARS OLD.						EWES, 3 YEARS OLD.					
Catalogue number of samples..	555.			563.			424.			542.			522.			523.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.00	2.25	1.875	1.50	2.125	2.125	1.625	1.50	2.00	1.375	1.875	1.25	1.25	1.875	1.875	2.00	2.25	2.00
	2.50	2.00	1.75	1.625	2.50	1.75	2.00	1.75	2.50	1.375	2.00	1.875	1.875	2.00	2.00	1.625	1.875	1.50
	2.25	2.50	2.25	1.00	2.50	1.00	2.00	1.75	2.25	1.625	1.75	2.00	1.375	3.875	1.50	2.00	2.00	2.25
	1.75	1.75	2.00	2.125	1.625	2.00	2.00	1.50	1.75	1.50	1.875	2.125	2.00	2.50	1.50	2.00	1.75	2.50
	2.00	1.625	2.25	2.00	2.125	2.00	1.75	1.75	2.00	1.375	1.50	1.50	2.375	1.75	2.50	1.50	2.00	1.875
	2.25	2.00	2.50	2.50	1.75	3.00	2.375	2.50	2.25	1.625	1.75	2.125	2.00	2.00	1.625	2.00	1.625	2.00
	3.50	2.125	2.25	1.25	1.75	1.50	1.625	2.25	2.00	1.50	1.875	1.625	2.25	2.00	2.00	1.875	2.50	2.00
	3.00	1.25	2.25	1.50	1.875	2.25	2.50	1.50	2.25	2.00	1.625	1.375	1.25	2.00	2.00	1.625	1.75	2.00
	2.25	2.50	2.375	1.375	2.25	2.00	2.25	2.00	1.50	2.125	1.875	1.625	2.25	2.00	2.00	2.00	1.875	2.25
	3.00	1.125	2.125	1.00	2.00	2.875	1.875	2.00	2.00	1.625	2.125	1.50	2.00	1.75	1.625	2.00	1.625	2.125
	2.25	2.00	2.125	1.625	2.00	2.50	2.00	2.00	2.00	1.125	2.50	1.625	2.125	2.00	2.00	2.00	2.00	2.00
	2.50	1.50	2.00	2.50	2.125	2.125	2.00	2.00	2.25	1.625	2.50	1.625	2.00	2.375	1.375	2.125	1.75	1.75
	2.25	2.00	2.00	2.75	1.75	2.25	2.00	2.00	2.00	1.125	2.125	1.75	1.50	2.00	1.50	1.75	2.25	2.50
	2.00	2.50	2.25	2.25	2.00	2.50	1.625	2.00	2.00	1.375	2.00	1.50	2.00	2.00	1.50	2.50	2.00	2.00
	2.50	2.50	2.00	3.00	1.75	2.375	2.125	2.00	2.00	1.625	1.875	1.375	1.50	1.875	2.125	2.00	1.875	1.875
	2.50	1.50	2.125	3.25	2.25	2.25	1.875	2.00	2.00	2.00	2.125	1.125	2.00	1.75	2.50	2.50	1.875	2.00
	2.50	2.00	1.75	2.50	3.00	1.75	2.375	2.00	2.375	1.00	2.50	1.625	1.50	2.125	2.00	2.00	1.875	2.00
	2.625	2.50	3.00	1.50	3.00	3.50	1.875	2.25	2.00	1.00	1.375	1.50	2.00	1.875	2.00	1.75	2.125	1.625
	3.75	2.125	2.50	1.625	2.125	3.00	2.25	2.00	2.50	1.50	1.625	1.625	2.50	2.50	1.75	2.50	2.00	2.00
	2.25	1.875	2.25	2.00	2.00	2.875	1.875	2.25	2.00	1.625	2.50	1.375	2.00	2.625	2.375	1.75	1.625	2.125
	2.00	3.50	1.75	1.50	2.125	2.375	2.00	2.50	2.50	1.50	1.875	1.75	2.00	2.125	1.75	2.00	3.00	2.625
	3.25	2.50	2.125	1.75	2.125	1.875	2.00	2.50	2.00	1.625	1.625	1.75	2.00	1.50	1.75	2.25	2.00	2.50
	1.75	2.125	2.25	1.625	1.875	2.00	2.125	2.50	2.50	1.375	2.00	2.125	1.875	2.00	2.00	2.00	2.00	2.00
	3.50	2.00	2.00	1.75	1.875	2.50	1.50	1.75	1.75	1.25	2.25	2.625	2.00	1.50	1.875	1.875	2.25	2.125
	2.25	2.50	1.875	3.00	1.75	3.00	1.75	2.00	2.00	1.375	1.375	1.625	3.00	1.375	2.50	2.25	1.75	1.75
	1.75	1.50	1.75	2.00	3.50	1.75	1.875	2.25	2.00	1.375	1.625	1.25	1.875	2.00	2.00	2.00	2.125	2.125
	2.00	3.00	1.875	2.25	2.50	2.75	1.875	2.25	2.00	1.25	1.625	1.50	1.375	2.50	1.75	1.75	1.50	2.25
	2.00	2.00	2.00	2.50	2.375	2.375	2.125	2.50	2.00	1.75	1.625	1.25	1.875	1.375	1.50	2.125	2.375	2.50
	2.25	2.75	2.00	2.625	2.125	2.50	2.00	2.50	2.00	1.50	1.875	1.75	1.50	3.00	2.375	1.75	2.25	2.00
	2.25	2.125	2.00	2.75	2.50	3.00	1.625	1.75	2.00	1.75	2.50	1.125	1.625	1.75	2.00	2.125	1.375	2.00
	2.75	2.00	2.50	2.50	3.25	2.50	1.50	1.75	2.375	1.625	2.50	1.875	2.00	1.625	2.50	1.75	2.00	2.25
	1.875	2.00	2.875	3.50	2.50	3.875	1.50	2.50	1.75	1.25	1.625	1.50	2.00	2.125	3.50	1.625	2.50	2.50
	2.50	2.125	2.25	2.25	2.125	2.375	2.25	1.75	1.50	1.00	1.75	1.50	1.50	2.00	2.25	2.25	1.75	2.00
	3.00	2.375	3.00	2.125	2.50	3.00	1.50	1.50	2.00	1.25	2.50	1.375	2.00	1.625	2.25	1.50	1.75	2.00
	3.00	2.125	2.875	2.75	1.625	2.50	1.625	2.00	1.125	1.375	1.50	2.00	1.375	1.50	1.875	2.00	2.00	2.00
	2.375	1.875	2.75	2.375	1.50	2.50	2.25	2.50	2.375	1.625	1.625	2.25	1.875	1.75	2.00	1.75	2.00	2.25
	2.50	2.50	2.50	2.00	2.50	2.25	2.00	1.50	2.50	1.625	1.625	1.625	2.125	2.00	1.75	1.75	1.50	1.75
	2.00	2.00	2.50	2.125	2.50	1.50	1.75	2.00	2.50	1.125	1.50	1.75	1.75	1.50	1.75	1.875	1.75	2.50
	3.00	2.50	2.625	1.75	2.50	2.375	2.00	2.25	2.00	1.125	1.75	1.625	1.625	2.00	1.75	2.50	1.375	1.875
	2.25	2.00	2.875	2.50	2.625	2.25	1.75	2.00	1.50	1.125	2.25	1.75	2.00	2.25	2.75	1.875	1.625	2.00
	2.00	1.75	2.50	3.00	1.625	2.75	2.00	2.25	2.50	1.75	1.75	2.00	2.00	1.875	1.75	2.00	1.50	2.00
	2.125	2.00	2.00	2.00	1.625	1.50	2.00	2.00	1.75	1.25	2.00	1.75	1.875	2.00	1.625	1.625	1.50	1.50
	1.875	2.125	2.875	2.125	2.00	1.75	2.00	2.25	2.00	1.25	2.125	1.75	2.125	2.00	1.75	1.75	2.375	2.00
	2.00	2.25	2.50	2.25	2.125	2.00	2.375	2.50	1.75	1.625	2.00	1.625	1.625	2.375	1.875	1.625	2.00	1.50
	2.00	2.50	2.375	1.75	2.25	2.125	2.125	1.50	2.00	1.25	1.875	1.75	1.75	2.50	2.25	1.75	1.875	1.75
	2.125	1.75	2.00	1.75	2.25	2.25	1.625	2.50	2.00	1.50	2.00	2.50	1.875	2.125	2.50	2.00	1.875	2.00
	1.875	2.125	1.50	2.25	2.25	2.375	1.625	2.00	2.50	1.375	1.75	2.00	2.00	2.50	2.50	3.00	1.75	1.625
	1.25	2.25	2.25	2.75	2.875	3.125	2.25	2.00	2.00	1.75	2.125	2.875	2.00	1.75	1.625	2.00	1.75	1.75
	1.625	2.00	2.00	1.75	2.00	3.50	2.00	1.75	2.00	1.25	2.00	1.625	2.00	2.25	2.125	2.125	2.00	1.50
	1.50	2.50	2.125	1.875	2.125	1.25	2.00	1.75	3.00	1.50	2.25	1.50	2.125	2.00	2.00	1.625	1.50	1.75
Totals.....	116.25	107.375	112.125	107.00	110.50	117.50	97.00	101.75	103.50	72.50	96.25	86.50	94.50	101.75	99.625	98.00	95.625	100.75

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	3.75	1.4763	B′	3.50	1.3779	B′	2.50	0.9842	B′	2.125	0.8366	B′	3.00	1.1811	B′	3.00	1.1811
	B″	3.50	1.3779	B″	3.50	1.3779	B″	2.50	0.9842	B″	2.50	0.9842	B″	3.875	1.5255	B″	3.00	1.1811
	B‴	3.00	1.1811	B‴	3.875	1.5255	B‴	3.00	1.1811	B‴	2.625	1.0334	B‴	3.50	1.3779	B‴	2.625	1.0334
Highest.....	.....	3.75	1.4763	.....	3.875	1.5255	.....	3.00	1.1811	.....	2.625	1.0334	.....	3.875	1.5255	.....	3.00	1.1811
Minimum measurements.	B′	1.25	0.4921	B′	1.00	1.3937	B′	1.50	0.5905	B′	1.00	0.3937	B′	1.25	0.4921	B′	1.50	0.5905
	B″	1.125	0.4429	B″	1.50	0.5905	B″	1.50	0.5905	B″	1.375	0.5413	B″	1.375	0.5413	B″	1.375	0.5413
	B‴	1.50	0.5905	B‴	1.00	0.3937	B‴	1.125	0.4429	B‴	1.125	0.4429	B‴	1.375	0.5413	B‴	1.50	0.5905
Lowest.....	.....	1.125	0.4429	.....	1.00	0.3937	.....	1.125	0.4429	.....	1.00	0.3937	.....	1.25	0.4921	.....	1.375	0.5413
Average measurements..	B′	2.325	0.9153	B′	2.14	0.8425	B′	1.94	0.7637	B′	1.45	0.5708	B′	1.89	0.7440	B′	1.96	0.7716
	B″	2.146	0.8448	B″	2.21	0.8700	B″	2.035	0.8011	B″	1.925	0.7578	B″	2.035	0.8011	B″	1.91	0.7519
	B‴	2.242	0.8826	B‴	2.35	0.9251	B‴	2.07	0.8149	B‴	1.691	0.6657	B‴	1.99	0.7834	B‴	2.015	0.7933
Average.....	.....	2.237	0.8807	.....	2.23	0.8779	.....	2.014	0.7929	.....	1.622	0.6385	.....	1.97	0.7755	.....	1.963	0.7728
Measurements above average..	.....	72		.....	76		.....	47		.....	[redacted]		.....	87		.....	86	
Measurements below average..	.....	73		.....	74		.....	103		.....	54		.....	63		.....	64	

TABLE I.—*Measurements of fineness of wools*—Continued.

	VERMONT.																	
	EWES, 3 YEARS OLD.																	
Catalogue number of samples..	524.			527.			528.			529.			531.			532.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.25 2.00 1.50 2.00 2.00 1.625 1.50 2.00 2.00 3.00 2.25 2.00 2.00 2.50 1.875 2.125 2.50 2.50 2.125 1.875 2.50 1.875 1.625 2.125 2.00 2.00 2.00

TABLE I.—*Measurements of fineness of wools*—Continued.

	VERMONT.																	
	EWES, 3 YEARS OLD.																	
Catalogue number of samples..	536.			538.			539.			541.			544.			546.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	3.00	2.50	2.00	2.00	2.00	2.00	1.75	2.00	1.50	1.50	1.875	1.375	1.625	2.25	1.75	1.625	2.00	1.625
	2.00	1.50	2.00	2.25	1.75	2.125	1.625	1.875	1.625	1.50	2.75	1.375	1.25	2.25	1.75	1.25	1.75	1.50
	2.50	2.125	1.50	1.875	1.875	2.50	1.75	2.00	2.75	1.50	1.75	1.625	1.625	2.00	1.625	1.50	1.75	1.50
	2.50	2.00	1.75	2.00	1.75	1.75	2.00	1.75	2.00	1.625	2.25	1.75	1.625	2.00	1.75	1.625	2.00	1.625
	2.50	1.875	1.75	2.25	3.00	2.00	1.25	2.50	2.25	1.50	1.625	1.50	1.25	2.00	2.00	1.75	2.50	1.50
	2.25	2.00	2.00	2.00	2.00	2.00	2.00	2.375	2.50	1.375	1.875	1.875	1.125	1.75	2.125	1.75	2.375	1.375
	1.625	2.25	2.50	2.25	2.25	2.375	2.25	1.875	2.00	2.00	2.25	1.625	1.25	1.625	1.75	1.625	2.25	1.375
	2.50	2.00	2.25	1.875	1.875	2.50	1.875	2.125	1.50	1.00	1.875	1.625	1.625	2.00	1.75	1.50	2.00	1.50
	2.75	2.125	2.50	2.00	1.75	1.625	1.75	2.125	2.50	1.00	2.00	2.00	2.00	1.875	2.125	1.75	1.875	2.10
	1.75	1.75	1.50	1.75	2.50	2.00	1.50	1.50	2.75	1.25	1.625	1.75	1.375	2.25	2.50	1.625	2.00	1.75
	1.50	1.50	1.75	2.00	2.00	2.00	1.625	1.50	1.50	2.00	1.75	1.375	1.75	2.50	1.75	2.125	2.00	1.75
	2.25	2.00	1.25	2.25	2.50	1.875	2.50	2.00	2.00	2.00	1.625	1.50	1.25	1.875	1.625	1.625	2.125	2.125
	1.75	1.75	1.50	1.875	1.625	2.50	1.50	1.875	1.50	1.75	2.375	1.375	1.75	1.75	1.50	1.50	2.25	2.125
	1.75	2.25	2.00	2.00	1.75	1.75	1.625	2.125	1.50	1.50	1.50	1.50	1.50	1.75	1.625	2.00	2.125	2.375
	1.50	3.00	2.25	1.75	2.00	2.00	1.50	2.25	3.00	1.50	1.25	1.625	1.625	2.125	1.50	2.125	2.00	2.25
	2.00	2.75	2.50	2.00	2.00	2.00	1.375	2.50	1.50	1.625	1.625	2.125	1.25	2.25	1.50	1.25	2.00	1.25
	2.25	2.25	2.50	2.50	2.25	2.125	2.00	2.50	1.50	1.50	1.75	1.375	1.878	1.875	1.625	1.75	1.875	1.50
	1.75	1.75	2.75	1.625	2.375	2.25	2.00	2.00	2.50	1.50	2.00	1.375	1.25	2.125	2.00	1.75	1.50	1.50
	2.75	2.00	2.00	2.00	2.125	2.125	1.50	2.00	2.00	1.75	2.50	1.875	1.25	1.75	1.50	1.50	2.00	1.50
	1.875	1.75	1.75	2.50	2.00	2.00	1.875	2.00	1.50	1.50	1.50	1.75	1.625	1.625	1.75	1.375	2.25	1.25
	1.75	1.50	2.00	2.00	2.00	2.00	1.50	1.875	2.00	1.25	1.75	2.25	1.50	2.00	2.125	1.50	2.00	1.625
	1.875	2.00	1.75	1.75	2.50	2.375	1.75	1.875	2.00	1.50	1.875	1.25	1.625	1.50	2.00	1.625	2.125	1.75
	2.125	1.75	1.875	1.50	1.875	2.25	1.25	1.875	1.625	1.625	1.875	1.25	1.625	2.00	1.50	1.375	1.75	2.00
	1.75	1.75	2.125	2.125	2.375	1.875	2.50	2.125	1.50	2.00	2.00	1.50	1.625	2.00	3.00	1.875	1.50	1.50
	1.75	2.00	3.00	2.00	2.00	2.00	2.00	1.50	1.875	1.625	1.75	1.625	1.75	1.75	3.00	1.50	2.00	1.75
	2.00	2.00	2.00	2.00	2.00	2.00	1.00	2.125	1.375	1.50	2.375	1.25	1.75	2.25	2.50	1.75	1.875	1.875
	2.50	1.75	2.00	2.75	1.50	2.375	2.00	2.50	1.50	1.25	2.00	1.75	2.25	2.00	2.625	2.00	2.00	1.875
	2.50	2.25	2.25	1.625	1.875	2.50	1.50	1.875	1.25	1.50	1.75	1.75	1.125	2.00	2.375	1.875	2.00	1.25
	2.00	2.00	3.00	2.00	1.875	1.625	1.50	1.75	1.50	2.00	1.625	1.375	1.25	2.25	1.00	2.25	1.75	2.00
	1.50	2.50	1.50	1.75	2.50	2.00	2.00	2.00	1.625	2.125	1.50	1.625	1.25	2.00	2.125	1.625	2.50	1.75
	2.00	2.375	2.125	2.00	2.00	2.00	2.50	1.50	2.00	2.375	2.50	1.75	1.375	2.00	1.625	1.625	2.00	1.75
	2.25	2.375	2.00	1.50	2.50	2.125	1.75	2.00	1.625	2.50	2.25	1.375	1.625	1.75	1.625	1.50	2.25	2.00
	3.00	2.25	1.875	2.375	2.375	2.50	1.25	1.625	1.50	1.375	2.00	1.25	1.75	2.00	2.00	1.50	2.375	1.75
	2.625	2.50	2.75	2.00	2.50	1.875	1.50	2.75	1.50	1.875	1.75	1.25	1.125	2.125	1.75	1.75	2.125	2.00
	2.50	1.875	2.125	1.75	2.00	2.00	2.00	1.875	2.50	1.375	1.875	1.00	1.625	2.00	1.75	2.00	1.875	1.00
	1.25	2.25	2.50	2.00	2.00	2.00	1.25	1.875	2.00	1.125	1.875	1.50	1.50	2.00	1.75	1.625	1.875	1.25
	2.125	2.50	2.00	2.25	1.50	2.125	2.50	1.625	1.75	1.375	1.875	1.875	1.50	1.50	2.00	1.625	2.00	2.00
	2.00	2.25	2.50	1.875	2.125	2.50	1.75	2.375	1.875	1.025	2.00	1.75	1.875	2.00	1.625	1.375	1.625	2.00
	2.25	1.50	2.50	2.00	2.00	1.75	1.50	2.00	2.00	1.75	2.50	1.25	1.125	2.00	2.00	1.25	1.75	2.125
	1.50	1.50	1.75	2.25	2.50	2.00	1.50	1.75	2.00	1.50	1.75	1.625	1.875	2.25	2.125	1.75	1.875	1.50
	2.25	1.50	2.00	2.00	2.00	2.00	1.625	2.125	1.50	1.125	2.00	1.50	1.125	1.50	1.75	1.75	2.75	2.00
	1.75	2.00	2.50	2.25	2.25	1.875	1.75	1.875	1.50	1.375	1.625	1.50	1.125	2.25	1.50	1.625	2.00	1.625
	2.125	2.75	2.00	1.875	1.875	2.50	1.50	1.50	2.125	0.875	2.00	1.50	1.75	2.00	1.375	1.125	2.25	1.75
	1.50	3.00	2.25	2.00	2.00	1.75	2.00	1.50	1.00	1.625	2.125	2.125	1.375	2.00	1.75	2.50	2.25	1.875
	1.75	2.00	1.875	1.75	2.50	2.00	1.75	2.00	2.00	1.375	2.00	1.50	1.50	2.125	1.625	1.625	2.00	1.50
	2.125	1.625	2.00	2.00	2.00	2.00	2.50	2.00	2.00	1.625	1.625	1.50	1.50	2.25	1.625	2.00	1.875	1.50
	2.00	2.50	1.75	2.25	3.00	2.125	1.50	2.75	2.00	1.875	2.00	1.375	2.375	2.00	2.00	1.75	1.50	2.00
	2.00	2.50	2.00	1.625	1.625	2.00	2.00	2.00	1.75	1.50	1.50	1.50	1.625	2.125	1.75	1.125	1.75	2.00
	1.75	2.50	2.25	2.00	1.75	1.875	1.50	1.625	1.75	2.00	2.00	1.75	1.75	2.125	1.375	1.75	1.75	2.00
	2.00	1.875	2.25	1.50	2.00	2.00	2.00	2.25	1.50	2.00	1.25	1.625	1.75	1.75	1.50	2.00	2.00	2.50
Totals	103.250	104.25	104.75	99.50	104.375	104.50	87.875	99.375	92.00	73.50	94.25	79.50	77.00	99.125	92.375	83.625	99.00	79.875

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	3.00	1.1811	B′	2.75	1.0826	B′	2.50	0.9842	B′	2.50	0.9842	B′	2.375	0.9350	B′	2.50	0.9842
	B″	3.00	1.1811	B″	3.00	1.1811	B″	2.75	1.0826	B″	2.75	1.0826	B″	2.50	0.9842	B″	2.75	1.0826
	B‴	3.00	1.1811	B‴	2.50	0.9842	B‴	3.00	1.1811	B‴	2.25	0.8858	B‴	3.00	1.1811	B‴	2.50	0.9842
Highest.....	.....	3.00	1.1811	.....	3.00	1.1811	.....	3.00	1.1811	.....	2.75	1.0826	.....	3.00	1.1811	.....	2.75	1.0826
Minimum measurements.	B′	1.25	0.4921	B′	1.50	0.5905	B′	1.00	1.3937	B′	0.875	0.3448	B′	1.125	0.4429	B′	1.125	0.4429
	B″	1.50	0.5905	B″	1.50	0.5905	B″	1.50	1.5905	B″	1.25	0.4921	B″	1.50	0.5905	B″	1.50	0.5905
	B‴	1.25	0.4921	B‴	1.655	0.6397	B‴	1.00	0.3937	B‴	1.00	0.3937	B‴	1.00	0.3937	B‴	1.00	0.3937
Lowest	.....	1.25	0.4921	.....	1.50	0.5905	.....	1.00	0.3937	.....	0.875	0.3448	.....	1.00	0.3937	.....	1.00	0.3937
Average measurements..	B′	2.065	0.8129	B′	1.99	0.7834	B′	1.7575	0.6017	B′	1.47	0.5787	B′	1.54	0.6262	B′	1.672	0.6582
	B″	2.085	0.8208	B″	2.088	0.8220	B″	1.988	0.7826	B″	1.895	0.7460	B″	1.983	0.7807	B″	1.98	0.7795
	B‴	2.095	0.8240	B‴	2.09	0.8228	B‴	1.84	0.7244	B‴	1.59	0.6259	B‴	1.847	0.7271	B‴	1.597	0.6287
Average	.....	2.081	0.3192	.....	2.055	0.8090	.....	1.863	0.7334	.....	1.651	0.6499	.....	1.79	0.7047	.....	1.749	0.6885
Measurements above average..	.....	65		.....	49		.....	81		.....	67		.....	51		.....	97	
Measurements below average..	.....	85		.....	101		.....	69		.....	83		.....	[illegible]		.....	[illegible]	

TABLE I.—*Measurements of fineness of wools*—Continued.

VERMONT.

EWES, 3 YEARS OLD.

Catalogue number of samples..	547.			548.			549.			550.			551.			552.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.00	2.00	1.75	1.50	1.50	1.875	2.50	2.00	2.00	1.75	1.875	3.00	2.00	3.00	2.50	2.125	2.50	2.50
	1.50	1.75	2.00	1.75	1.75	2.50	2.25	1.75	2.00	2.00	1.875	2.00	1.75	2.00	1.50	2.50	2.50	3.00
	1.50	1.75	2.00	1.625	1.75	1.50	2.00	1.875	2.25	2.25	2.00	2.00	2.50	2.25	1.375	2.25	2.25	1.50
	1.50	1.50	1.875	1.75	1.625	2.00	2.00	1.25	2.50	1.50	3.625	1.75	1.875	2.25	2.00	2.00	2.375	1.75
	1.50	1.625	2.00	2.00	1.75	2.00	1.875	1.875	2.25	1.75	1.75	1.875	2.00	1.75	2.00	2.00	1.50	2.25
	1.75	2.375	2.125	1.50	1.50	1.875	2.125	2.00	2.375	2.00	1.50	2.25	1.75	1.875	1.875	2.50	2.00	2.125
	1.75	2.00	2.25	1.75	1.25	1.625	1.75	2.00	2.00	2.00	1.625	1.875	1.75	2.125	2.25	1.75	1.875	2.00
	2.00	1.875	1.625	2.25	1.375	1.75	2.25	1.875	1.75	2.25	2.00	1.50	2.00	2.125	2.00	2.25	2.25	2.25
	1.625	1.75	2.00	1.50	2.125	2.00	2.375	1.75	1.875	2.375	2.25	2.00	1.875	2.00	2.25	2.50	2.125	2.375
	2.25	2.00	1.75	1.625	2.25	1.625	2.125	2.00	1.50	2.00	1.125	3.00	2.00	1.625	2.00	3.00	2.50	2.50
	2.375	1.75	2.25	2.00	2.00	1.50	1.75	1.625	2.00	2.00	2.125	2.00	1.75	1.50	1.50	2.50	1.875	2.125
	1.75	2.375	2.00	2.25	1.75	1.50	1.875	1.75	2.00	1.75	3.50	1.75	1.625	1.50	2.00	2.25	2.50	2.00
	1.50	2.00	1.75	1.75	2.50	1.375	1.50	2.00	2.25	2.25	2.00	1.875	2.125	1.625	2.75	2.25	1.875	2.25
	1.625	2.00	1.50	1.625	2.00	2.00	1.625	1.75	2.50	1.875	2.25	2.25	2.00	3.00	2.50	1.75	2.00	2.50
	1.75	2.375	1.50	1.625	2.00	2.00	2.00	2.00	2.375	2.00	2.25	2.50	2.00	2.125	2.00	2.00	2.125	2.50
	2.875	2.25	1.875	2.00	1.00	1.25	1.75	1.50	2.00	2.00	1.75	1.75	1.75	2.00	2.375	1.875	2.00	2.25
	1.50	2.00	1.625	1.50	1.75	1.25	2.50	1.50	2.125	2.25	1.875	1.75	2.00	2.25	1.75	2.625	2.125	2.00
	1.375	1.875	1.875	1.75	2.00	1.375	2.25	1.625	2.00	2.00	2.25	2.25	1.75	2.25	2.00	2.375	2.375	2.25
	1.50	2.00	2.00	1.625	2.50	2.50	1.875	1.50	1.50	2.00	1.875	2.00	2.125	1.25	2.125	2.75	2.25	2.375
	2.00	1.125	1.75	2.00	2.00	2.375	2.50	1.875	1.25	1.875	1.25	2.00	1.875	2.125	2.75	2.75	1.875	2.00
	2.125	1.25	1.625	1.75	2.50	3.25	1.75	1.50	1.125	2.25	2.00	2.00	2.00	2.25	2.375	2.25	1.75	2.50
	1.00	2.25	2.00	1.50	1.75	2.50	2.25	1.625	2.00	1.50	1.75	1.50	1.75	2.00	2.125	2.375	1.75	2.625
	1.25	1.75	2.00	1.50	1.875	3.00	2.625	2.00	1.50	1.75	1.875	2.00	1.75	1.00	1.75	1.625	2.00	2.25
	2.25	1.625	1.75	1.75	2.00	1.50	2.375	1.375	1.75	2.00	1.50	1.75	1.625	2.125	1.625	1.75	1.75	2.375
	1.875	2.00	1.50	1.50	2.375	1.75	1.875	1.875	2.50	2.125	2.125	2.125	1.50	2.125	2.00	2.375	1.75	2.50
	2.00	1.75	1.50	1.625	3.25	2.00	2.125	1.75	1.75	2.00	2.00	2.50	1.50	2.125	1.50	2.50	2.00	2.25
	2.00	2.25	1.375	1.625	1.50	2.25	2.50	1.75	2.50	2.50	2.00	1.50	2.00	2.25	1.25	2.375	1.50	1.50
	2.125	2.00	1.75	2.125	2.50	2.125	2.25	1.875	2.50	2.00	1.875	2.50	2.00	2.25	2.125	2.00	2.50	1.375
	1.00	1.25	2.00	1.75	2.75	2.00	2.00	2.00	2.125	2.25	2.25	2.00	1.75	2.25	1.125	2.00	1.75	2.25
	1.50	2.75	1.75	1.50	2.50	1.50	2.375	1.75	2.25	2.125	1.25	1.75	1.75	1.75	2.00	2.00	2.00	2.25
	1.625	2.50	1.50	1.50	2.375	3.00	2.50	1.50	1.50	2.50	1.125	2.50	2.25	1.875	2.50	1.875	1.75	1.50
	1.50	2.375	2.25	1.75	1.50	2.00	2.50	2.75	1.75	2.00	2.00	2.25	2.00	2.00	2.25	1.75	1.875	2.50
	2.00	2.50	2.375	1.50	2.00	2.00	2.00	1.50	2.25	1.50	1.75	2.25	2.00	2.00	3.125	2.25	2.00	1.50
	1.00	2.00	2.50	1.50	1.625	2.375	1.875	1.875	2.00	1.75	1.875	2.00	1.75	2.00	1.75	2.25	2.25	2.375
	1.75	2.00	1.75	1.625	1.50	2.25	2.25	1.50	2.25	1.50	1.50	1.75	2.00	2.00	2.00	2.375	1.75	2.00
	1.50	1.875	1.25	1.875	1.375	1.625	2.00	2.50	2.00	2.00	2.625	1.875	1.75	2.00	1.50	1.25	2.00	2.25
	1.625	2.00	1.125	1.125	1.50	2.375	1.50	2.00	1.50	1.75	2.00	2.00	2.00	2.50	2.125	2.125	2.00	2.125
	2.00	1.625	1.50	1.25	1.75	1.625	2.00	2.00	2.75	2.625	2.00	2.00	2.125	2.125	2.125	2.00	2.00	2.00
	1.625	1.50	1.875	1.875	1.75	2.00	1.875	1.75	2.00	2.00	1.875	1.50	1.50	2.75	2.50	2.00	2.375	2.125
	2.125	2.00	1.50	1.50	2.00	2.00	2.25	1.50	2.00	2.00	1.75	1.75	1.75	2.625	2.50	2.25	1.75	1.75
	1.50	2.50	1.50	1.875	2.25	2.375	1.50	2.50	2.875	1.75	1.75	2.25	2.00	1.75	1.75	2.25	2.50	1.50
	1.50	2.25	1.75	1.50	2.125	1.50	1.625	3.00	2.50	1.625	2.00	2.375	1.625	1.875	1.875	1.75	2.00	2.375
	2.375	1.75	1.75	1.375	1.125	1.625	1.50	2.25	2.50	2.125	2.25	1.75	2.00	2.00	2.125	1.75	1.75	2.50
	1.25	2.00	1.50	1.375	1.50	2.125	2.75	2.125	2.25	1.50	2.25	1.50	1.75	3.00	1.75	2.25	2.00	1.50
	1.50	2.00	2.00	2.00	2.00	2.00	2.50	1.75	2.375	1.75	2.75	2.00	1.75	2.00	2.00	2.00	1.875	1.75
	2.00	1.875	1.75	2.00	1.125	2.25	2.125	2.125	2.25	2.50	1.375	1.50	1.875	2.00	2.50	2.375	2.00	2.25
	1.25	1.75	1.625	1.75	1.25	2.25	1.50	3.50	2.00	2.75	2.00	2.125	1.75	1.50	2.00	1.75	2.50	2.50
	1.25	1.625	1.875	1.75	2.00	1.75	3.25	2.25	1.875	2.00	2.00	2.40	1.50	1.375	1.75	1.625	2.25	1.50
	1.50	1.75	1.50	1.50	1.75	2.00	2.00	3.00	1.75	1.50	1.75	2.28	1.50	2.00	1.875	2.25	2.00	1.75
	1.50	2.25	2.00	1.75	1.50	2.00	1.75	1.50	2.125	1.50	1.50	1.75	1.50	2.00	2.00	2.60	2.00	2.00
Totals.....	82.125	97.375	89.625	84.375	93.875	99.625	104.25	94.875	102.500	99.50	97.00	100.875	92.500	111.50	101.375	107.375	101.375	103.750

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.375	0.9350	B′	2.25	0.8858	B′	3.25	1.2795	B′	2.75	1.0826	B′	2.50	0.9842	B′	3.00	1.1811
	B″	2.75	1.0826	B″	3.25	1.2795	B″	3.50	1.3779	B″	2.625	1.4271	B″	3.00	1.1811	B″	2.50	0.9842
	B‴	2.375	0.9350	B‴	3.25	1.2795	B‴	3.475	1.1378	P‴	3.00	1.1811	B‴	2.75	1.0826	B‴	3.00	1.1811
Highest.....	.....	2.75	1.0826	.....	3.25	1.2795	.....	3.50	1.3779	.....	3.625	1.4271	.....	3.00	1.1811	.....	3.00	0.1811
Minimum measurements.	B′	1.00	0.3937	B′	1.125	0.4429	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.25	0.4921
	B″	1.25	0.4921	B″	1.125	0.4429	B″	1.25	0.4921	B″	1.125	0.4429	B″	1.00	0.3937	B″	1.50	0.5905
	B‴	1.25	0.4921	B‴	1.25	0.4921	B‴	1.125	0.4429	B‴	1.50	0.5905	B‴	1.125	0.4429	B‴	1.375	0.5413
Lowest	.....	1.00	0.3937	.....	1.125	0.4429	.....	1.125	0.4429	.....	1.125	0.4429	.....	1.00	0.3937	.....	1.25	0.4921
Average measurements..	B′	1.642	0.6461	B′	1.687	0.6641	B′	2.083	0.8200	B′	1.989	0.7830	B′	1.85	0.7283	B′	2.147	0.8452
	B″	1.948	0.7669	B″	1.878	0.7394	B″	1.898	0.7472	B″	1.94	0.7637	B″	2.226	0.8763	B″	2.067	0.7980
	B‴	1.792	0.7055	B‴	1.99	0.7826	B‴	2.05	0.8070	B″	2.017	0.7940	B‴	2.025	0.7972	B‴	2.135	0.8405
Average.....	.....	1.794	0.7062	.....	1.853	0.7295	.....	2.010	0.7913	.....	1.982	0.7803	.....	2.033	0.8003	.....	2.103	0.8279
Measurements above average..	.....	69		.....	66		.....	55		.....	87		.....	49		.....	77	
Measurements below average..	.....	81		.....	84		.....	95		.....	63		.....	101		.....	73	

TABLE I.—*Measurements of fineness of wools*—Continued.

	VERMONT.																	
	EWES, 3 YEARS OLD.																	
Catalogue number of samples..	553.			556.			557.			558.			559.			560.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.25	1.50	2.25	1.875	2.50	2.25	1.875	2.00	1.75	1.875	2.00	2.00	1.50	1.50	1.50	2.375	1.75	2.00
	1.75	1.75	2.00	2.00	1.875	2.00	2.60	2.125	1.75	2.50	2.125	1.75	1.75	1.50	1.75	2.25	1.50	2.25
	1.625	1.50	1.875	1.75	2.125	2.25	2.00	2.00	2.00	1.50	2.00	2.00	1.50	2.00	1.75	2.00	2.00	1.75
	1.75	1.75	1.625	2.00	2.00	2.00	1.50	1.75	2.50	1.75	1.50	2.00	1.50	1.50	1.50	2.25	2.375	2.00
	1.75	1.75	1.75	2.375	2.00	1.875	2.50	2.125	1.625	1.875	2.00	2.25	1.625	2.00	1.625	1.625	1.50	2.125
	1.625	2.00	2.00	2.25	2.00	2.25	1.75	2.25	1.75	2.50	1.75	1.875	1.75	2.00	2.00	1.75	1.625	2.00
	1.50	1.625	2.25	1.625	2.00	2.00	2.25	1.50	1.50	2.50	1.50	1.75	1.625	2.50	2.00	2.25	1.625	1.875
	2.00	2.00	1.875	1.625	2.00	2.50	2.00	1.75	1.625	2.00	1.50	2.50	2.125	1.75	2.25	1.25	1.625	1.75
	1.875	1.75	2.00	2.75	2.625	2.375	1.75	1.375	2.00	2.25	1.75	1.75	2.00	1.50	1.75	2.00	2.00	2.00
	1.625	1.625	1.875	2.125	1.875	2.125	2.00	2.00	1.50	2.00	1.50	2.00	1.50	1.625	1.875	2.125	1.75	1.75
	1.875	2.00	2.125	2.25	2.375	2.00	2.25	2.00	1.75	1.875	1.75	1.75	1.75	2.375	1.75	2.25	1.50	1.75
	2.125	2.00	1.625	1.75	2.125	2.50	1.75	1.875	1.875	1.625	1.875	1.875	2.00	2.125	2.00	1.75	1.625	1.625
	2.00	1.75	2.00	1.875	2.00	2.375	2.50	2.125	2.50	2.00	1.25	3.00	2.00	2.00	2.00	1.875	1.50	1.75
	1.50	1.875	1.875	2.00	1.50	1.75	2.25	1.875	2.375	1.875	1.875	2.00	1.50	2.25	1.50	2.25	1.625	2.00
	1.75	1.375	1.875	1.75	2.50	1.875	2.25	1.875	2.25	2.00	2.00	2.125	1.75	2.00	1.75	1.75	2.00	2.125
	1.50	1.50	2.00	1.50	2.50	2.25	2.00	1.625	2.00	1.75	1.75	2.00	1.875	1.75	2.00	2.25	1.625	1.50
	2.25	2.00	1.875	1.50	2.00	2.25	2.00	2.00	2.00	2.75	2.00	1.875	1.625	2.00	2.25	2.00	2.00	1.25
	2.75	1.815	2.00	1.625	2.50	2.375	1.75	2.00	1.875	2.50	2.00	1.875	1.25	2.00	1.75	2.125	2.50	1.75
	1.625	1.625	2.00	1.75	2.75	2.50	2.25	2.125	2.125	2.625	1.875	2.50	1.50	2.50	1.75	1.75	1.50	2.00
	1.75	2.25	2.25	1.875	2.125	2.50	2.125	1.75	2.25	2.25	1.75	2.50	2.00	2.00	1.375	2.125	1.625	2.00
	1.625	2.25	1.75	2.00	2.00	2.25	2.25	2.50	1.875	2.50	1.625	1.75	1.50	1.75	2.375	2.00	1.75	2.25
	2.00	1.75	1.875	2.00	2.00	2.50	1.875	1.50	1.75	2.50	2.00	1.50	1.50	1.50	2.00	2.00	2.00	1.875
	1.50	1.50	1.50	2.00	2.50	2.25	2.00	2.125	2.00	3.25	1.875	1.75	1.75	2.25	2.125	1.75	1.875	1.75
	1.75	1.625	2.00	1.625	2.125	2.375	1.50	2.00	2.00	1.50	1.625	1.75	2.25	2.50	1.875	1.50	1.875	2.25
	2 125	1.375	1.75	2.00	1.875	1.875	2.00	1.875	2.125	1.875	1.75	2.25	1.875	1.625	2.00	1.625	2.00	2.00
	2 50	2.00	1.75	1.75	1.875	1.875	2.125	1.75	1.50	2.50	1.75	2.50	1.50	2.125	1.50	2.00	1.75	2.125
	2 125	2.00	1.875	1.50	1.75	1.50	2.00	1.625	2.25	2.00	2.375	2.25	1.375	1.75	1.375	2.25	2.125	1.75
	2.00	1.875	1.50	1.875	2.125	2.00	2.50	2.75	1.875	2.25	2.00	2.00	1.75	2.00	3.00	2.00	1.625	1.50
	2.125	1.625	2.25	2.125	1.75	2.25	2.625	1.50	1.75	2.375	2.00	1.75	2.00	1.75	1.75	2.125	1.50	2.375
	2.00	2.00	2.00	1.75	1.875	2.00	2.00	2.00	2.50	2.00	2.00	1.625	2.00	1.50	1.625	1.50	2.25	2.25
	1.25	1.75	2.125	2.00	2.125	1.50	1.75	2.00	2.00	2.125	2.50	1.875	1.75	1.875	2.00	1.50	2.125	3.25
	2.50	1.75	2.90	2.125	2.125	1.75	1.375	1.875	2.375	2.25	1.75	1.75	2.125	1.75	1.75	1.75	2.00	1.25
	2.00	1.50	2.00	1.75	2.00	2.00	1.50	1.875	1.75	2.75	2.125	1.75	1.50	1.75	2.00	1.75	2.125	1.875
	1.625	2.00	2.50	1.50	2.00	3.00	1.50	1.75	2.25	2.875	2.00	2.00	1.75	1.75	2.125	2.00	1.75	1.375
	1.875	2.00	2.00	1.75	2.00	1.75	1.75	1.75	2.125	1.50	1.75	1.875	2.00	2.125	2.25	2.25	1.625	1.25
	1.875	1.75	1.625	1.75	1.50	1.875	1.875	2.00	1.50	1.25	2.625	2.125	2.00	2.125	2.00	2.25	2.50	2.00
	1.75	1.625	1.875	1.50	1.50	1.625	2.00	1.875	1.50	2.00	1.75	2.50	1.50	1.75	1.75	2.00	1.625	1.50
	1.875	1.375	2.00	2.00	1.75	2.00	2.125	2.125	1.625	2.00	2.125	2.00	1.625	1.50	1.625	2.50	2.00	2.50
	1.50	1.50	1.875	1.50	1.625	2.375	2.00	2.375	2.00	1.625	2.00	3.25	1.75	2.00	2.25	2.375	1.625	3.00
	2.00	2.00	2.00	2.375	2.00	1.50	2.00	2.00	2.25	2.25	1.875	2.00	2.25	2.00	2.125	2.25	2.875	2.25
	2.50	1.50	1.00	2.50	2.125	2.125	1.875	1.875	2.125	1.50	1.625	3.50	2.00	2.00	2.00	1.875	1.75	2.00
	2.00	1.50	1.625	2.00	2.00	2.25	2.25	1.75	1.875	2.00	1.875	2.00	2.00	2.125	1.875	1.75	2.25	1.875
	1.875	1.625	2.00	2.25	2.00	2.375	1.875	2.00	1.50	2.125	1.875	2.25	2.125	1.875	2.00	1.50	2.125	1.75
	1.75	1.50	1.625	2.375	1.375	2.00	2.00	2.00	1.75	2.25	2.50	1.75	1.75	1.875	2.00	2.125	2.25	2.125
	2.00	1.25	1.375	1.50	2.00	2.25	1.75	2.00	2.25	1.50	2.50	1.625	1.50	1.875	1.75	1.50	2.50	2.00
	1.875	1.75	1.625	1.375	2.00	2.00	1.50	1.75	2.00	1.75	2.625	1.75	1.50	2.125	1.875	1.875	1.75	1.50
	1.25	2.00	1.50	2.00	2.375	2.50	1.50	2.00	1.875	2.00	2.375	2.00	2.50	1.75	1.875	1.75	2.00	2.00
	1.375	1.75	1.75	1.50	2.00	2.50	2.00	2.00	1.75	2.25	2.125	1.875	2.00	1.625	1.625	2.50	2.00	1.75
	1.625	1.50	1.50	2.125	2.50	1.875	2.25	1.625	2.50	1.625	1.75	1.75	1.50	2.00	2.00	2.25	2.00	1.875
	2.25	2.00	2.50	2.25	2.125	1.875	2.50	1.75	1.50	1.75	2.00	2.00	1.50	1.875	2.25	2.125	2.00	2.125
Totals	93.375	87.125	84.875	95.00	101.875	106.00	99.00	95.125	96.125	105.125	96.00	102.125	98.25	100.375	94.875	98.625	95.00	96.625

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.75	1.0826	B′	2.75	1.0826	B′	2.625	1.0334	B′	3.25	1.2795	B′	2.50	0.9842	B′	2.50	0.9842
	B″	2.25	0.8858	B″	2.75	1.0826	B″	2.75	2.0826	B″	2.625	1.0334	B″	2.50	0.9842	B″	2.50	0.9842
	B‴	2.50	0.9842	B‴	3.00	1.1811	B‴	2.50	0.9842	B‴	3.50	1.3779	B‴	3.00	1.1811	B‴	3.25	1.2795
Highest.....	.....	2.75	1.0826	.....	3.00	1.1811	.....	2.75	1.0826	.....	3.50	1.3779	.....	3.00	1.1811	.....	3.25	1.2795
Minimum measurements.	B′	1.25	0.4921	B′	1.50	0.5905	B′	1.375	0.5413	B′	1.25	0.4921	B′	1.25	0.4921	B′	1.25	0.4921
	B″	1.25	0.4921	B″	1.375	0.5413	B″	1.375	0.5413	B″	1.25	0.4921	B″	1.50	0.5905	B″	1.50	0.5905
	B‴	1.00	0.3937	B‴	1.50	0.5905	B‴	1.50	0.5905	B‴	1.50	0.5905	B‴	1.375	0.5413	B‴	1.25	0.4921
Lowest.....	.....	1.00	0.3937	.....	1.375	0.5413	.....	1.375	0.5413	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.25	0.4921
Average measurements..	B′	1.867	0.7350	B′	1.90	0.7480	B′	1.98	0.7795	B′	2.102	0.8275	B′	1.965	0.7736	B′	1.972	0.7763
	B″	1.743	0.6862	B″	2.038	0.8023	B″	1.923	0.7570	B″	1.92	0.7559	B″	2.008	0.7905	B″	1.90	0.7480
	B‴	1.697	0.6681	B‴	2.12	0.8346	B‴	1.922	0.7566	B‴	2.042	0.8039	B‴	1.897	0.7468	B‴	1.932	0.7606
Average	.....	1.769	0.6964	.....	2.019	0.7948	.....	1.941	0.7641	.....	2.021	0.7956	.....	1.956	0.7700	.....	1.934	0.7614
Measurements above average..	.....	76		.....	59		.....	82		.....	48		.....	86		.....	80	
Measurements below average..	.....	74		.....	91		.....	68		.....	102		.....	84		.....	70	

TABLE I.—*Measurements of fineness of wools*—Continued.

	VERMONT.						NEW YORK.											
	EWES, 3 YEARS OLD.						RAMS, 2 YEARS OLD.											
Catalogue number of samples..	561.			562.			[illegible]			670.			671.			672.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.00	1.75	2.25	1.50	2.00	1.75	2.00	1.50	2.00	2.00	2.50	1.625	3.125	2.75	2.25	6.72	[illegible]	[illegible]
	2.25	2.00	[illegible]	1.25	1.375	1.50	2.50	[illegible]	2.00	2.25	1.75	[illegible]	1.50	2.00	2.25	1.50	2.125	1.75
	2.00	[illegible]	2.00	2.50	1.75	1.50	2.625	2.25	2.50	2.25	1.75	[illegible]	1.875	1.25	1.50	[illegible]	[illegible]	2.125
	2.00	1.875	2.50	1.75	2.00	2.00	1.50	2.00	1.75	2.00	1.875	1.75	2.00	1.75	[illegible]	1.875	1.875	2.00
	1.50	2.50	2.25	2.25	2.00	1.875	1.50	2.00	1.875	2.00	1.50	1.50	1.875	1.875	2.00	2.25	2.00	[illegible]
	2.125	2.125	1.75	2.25	1.50	2.50	1.625	2.00	1.75	2.125	1.625	1.375	2.25	2.50	1.875	2.50	2.25	1.75
	1.75	2.375	1.875	1.25	2.50	1.375	2.50	2.375	1.875	1.875	1.875	2.00	2.00	2.375	3.00	3.00	1.50	1.875
	1.875	[illegible]	2.00	2.125	2.00	1.25	2.25	1.75	1.75	2.00	[illegible]	2.00	2.00	3.00	2.25	[illegible]	1.50	1.50
	2.50	[illegible]	2.00	2.50	[illegible]	2.375	2.25	2.00	1.875	1.875	2.00	1.75	2.25	2.00	2.375	[illegible]	1.50	1.375
	2.00	[illegible]	2.50	2.75	3.00	2.50	1.50	1.875	1.625	1.75	1.50	1.625	1.75	[illegible]	[illegible]	2.00	1.50	[illegible]
	1.875	2.00	1.75	1.875	1.75	2.375	1.625	2.125	2.00	1.50	1.75	1.875	1.875	3.00	2.50	[illegible]	1.75	[illegible]
	1.50	2.00	1.625	1.00	1.50	2.00	1.75	1.50	1.75	1.625	2.00	1.75	2.25	2.25	1.75	1.75	2.25	1.625
	[illegible]	[illegible]	[illegible]	2.50	3.00	[illegible]	1.625	2.25	1.875	1.75	1.75	1.75	2.125	[illegible]	1.75	2.375	2.00	1.875
	1.75	2.25	2.25	2.125	1.75	[illegible]	1.50	2.50	1.50	2.50	2.00	1.50	2.00	[illegible]	3.25	1.50	[illegible]	2.50
	[illegible]	2.125	[illegible]	2.00	2.125	[illegible]	1.75	1.50	1.50	2.25	1.50	1.75	2.50	2.625	3.00	2.00	1.75	2.625
	2.125	2.25	2.25	1.75	1.875	1.75	1.75	2.25	1.875	2.50	1.75	1.625	2.25	1.875	2.50	1.75	1.50	[illegible]
	2.125	2.50	1.75	1.875	[illegible]	2.25	2.50	1.50	1.50	2.25	1.625	2.00	2.00	1.875	2.50	2.00	[illegible]	1.50
	[illegible]	2.25	2.625	1.75	[illegible]	[illegible]	[illegible]	2.50	[illegible]	2.00	2.25	1.875	[illegible]	[illegible]	3.00	1.75	1.75	1.375
	1.625	[illegible]	[illegible]	2.25	[illegible]	2.25	2.50	2.25	1.875	2.125	1.75	2.00	2.25	[illegible]	2.00	2.00	2.25	4.50
	[illegible]	[illegible]	1.75	1.75	1.75	1.50	2.00	1.375	1.375	1.50	2.00	2.00	1.875	2.25	[illegible]	[illegible]	1.375	2.00
	1.75	[illegible]	[illegible]	1.75	[illegible]	[illegible]	1.875	1.25	1.75	1.875	1.50	1.50	1.75	1.75	1.875	2.50	2.00	2.00
	2.25	[illegible]	[illegible]	2.25	1.50	2.00	2.00	2.00	2.00	2.25	1.75	2.00	2.50	1.875	1.75	2.50	2.00	1.25
	[illegible]	[illegible]	1.75	2.50	2.00	1.50	[illegible]	2.25	1.50	2.50	1.875	2.00	2.25	1.875	1.625	2.375	1.75	1.50
	[illegible]	2.125	2.25	1.50	[illegible]	[illegible]	2.375	2.125	1.50	2.00	2.00	2.25	2.125	1.75	1.75	1.375	1.625	1.625
	1.875	[illegible]	1.75	2.00	[illegible]	1.625	1.75	1.75	2.00	2.00	2.125	1.75	2.375	[illegible]	2.00	2.25	[illegible]	1.875
	1.75	[illegible]	1.75	2.00	2.125	2.00	1.75	2.50	2.125	1.75	2.125	1.50	2.50	2.125	1.75	1.875	2.375	1.75
	1.75	2.75	2.25	2.125	2.00	2.50	1.875	1.50	1.50	2.00	2.25	1.75	1.625	1.875	2.00	[illegible]	2.00	1.875
	2.25	2.25	2.375	1.625	[illegible]	1.75	2.00	2.125	2.125	2.125	1.875	1.625	2.00	1.50	2.00	2.375	1.75	2.00
	2.00	2.125	2.25	1.50	2.00	2.00	2.125	2.00	2.00	1.625	1.75	2.00	1.50	1.50	2.25	2.25	1.875	2.25
	1.875	2.50	3.00	2.25	2.00	2.25	2.00	2.125	1.50	1.75	2.125	1.50	2.50	2.50	2.50	1.75	1.75	3.00
	1.75	1.75	[illegible]	2.00	1.75	2.50	1.50	2.25	2.25	1.50	2.50	1.875	2.25	1.75	2.25	1.75	2.00	1.75
	2.25	2.375	1.75	2.125	2.50	2.50	1.50	2.25	1.75	2.00	2.375	2.25	2.375	2.25	2.375	2.50	1.75	2.25
	1.75	2.00	1.875	2.50	1.75	1.50	2.00	2.25	2.00	2.00	1.50	2.25	1.75	2.375	2.50	1.25	1.50	2.25
	2.25	2.25	1.50	[illegible]	1.75	1.625	1.75	1.50	2.00	2.00	1.75	2.00	1.875	2.25	2.25	1.50	2.00	2.00
	1.875	2.25	1.625	2.125	2.375	1.75	2.625	1.625	2.25	2.00	1.625	1.75	2.50	2.125	2.00	1.75	2.50	2.125
	1.875	2.00	1.875	[illegible]	1.625	2.00	2.125	1.75	2.00	1.75	2.75	1.75	2.375	2.00	2.50	2.125	2.375	1.50
	2.00	2.00	1.625	2.50	2.125	2.00	2.00	1.875	2.00	1.75	2.25	1.375	2.00	2.00	1.50	2.00	1.75	1.125
	2.125	2.00	2.50	2.75	2.375	1.75	2.25	2.50	2.75	1.75	1.75	1.75	2.00	1.875	2.25	1.50	2.00	1.375
	2.25	2.50	[illegible]	2.00	1.75	1.625	1.75	1.625	2.125	1.75	1.75	1.875	2.125	2.375	2.125	2.50	1.75	1.50
	2.125	[illegible]	2.875	2.25	2.125	2.00	1.875	2.125	1.50	1.75	1.625	2.00	2.00	2.25	2.50	2.25	2.125	2.00
	2.25	2.00	1.50	1.50	2.375	2.50	2.00	2.00	1.75	1.875	2.00	1.625	1.875	[illegible]	2.50	1.875	1.75	1.625
	1.75	2.00	2.00	[illegible]	1.625	2.625	1.875	1.75	1.875	1.875	2.125	1.75	2.00	[illegible]	2.00	2.50	2.25	1.25
	2.00	2.50	2.25	2.50	2.00	2.25	1.75	1.875	2.00	2.125	1.75	1.625	1.875	2.00	2.25	2.25	2.25	1.50
	2.25	2.00	2.25	2.625	2.50	1.375	2.50	2.00	2.00	2.25	1.875	1.625	2.50	1.875	3.00	1.75	1.625	2.00
	2.00	1.75	2.50	2.75	1.50	1.50	2.75	1.75	1.625	1.75	2.125	1.375	2.25	1.75	1.75	1.875	2.00	2.00
	2.00	2.00	1.875	2.00	1.875	1.25	2.75	1.75	2.00	1.875	[illegible]	2.00	2.375	1.50	2.00	2.00	1.375	1.875
	1.875	2.00	2.00	2.25	3.00	2.00	1.75	1.625	1.75	2.50	1.50	1.375	2.25	[illegible]	1.625	1.875	1.50	[illegible]
	1.75	2.25	2.50	1.875	1.75	2.25	2.00	1.875	2.125	1.75	1.50	1.625	1.875	[illegible]	1.50	2.25	1.625	2.625
	2.00	2.00	2.75	2.00	2.00	2.00	2.50	2.00	2.25	1.875	1.625	1.75	2.00	2.50	2.125	2.375	2.00	2.00
	2.00	2.125	3.25	2.00	3.125	[illegible]	2.375	3.00	2.00	2.00	1.75	1.50	2.00	[illegible]	1.50	2.00	2.25	1.25
Totals	98.875	[illegible]	116.875	[illegible]	101.00	97.75	90.375	[illegible]	95.00	98.50	94.25	86.75	105.25	95.875	108.875	102.625	96.50	[illegible]

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.50	0.9842	B′	[illegible]	1.1811	B′	2.75	[illegible]	B′	2.50	0.9842	B′	3.125	1.2303	B′	3.00	1.1811
	B″	3.00	1.1811	B″	3.125	[illegible]	B″	[illegible]	1.1811	B″	2.75	1.0826	B″	3.00	1.1811	B″	[illegible]	0.9842
	B‴	3.25	[illegible]	B‴	2.625	1.0334	B‴	2.75	1.0826	B‴	[illegible]	0.8858	B‴	3.25	1.2791	B‴	4.50	1.7716
Highest	.....	3.25	1.2795	.....	3.125	[illegible]	.....	3.00	1.1811	.....	2.75	1.0826	.....	3.25	1.2791	.....	4.50	1.7716
Minimum measurements.	B′	1.375	0.5413	B′	1.00	[illegible]	B′	1.50	[illegible]	B′	1.50	[illegible]	B′	1.50	0.5905	B′	1.25	0.4921
	B″	1.50	[illegible]	B″	1.125	0.4429	B″	1.25	0.4921	B″	[illegible]	0.5905	B″	1.25	0.4921	B″	1.375	0.5413
	B‴	1.50	0.5905	B‴	1.25	0.4921	B‴	1.375	0.5413	B‴	1.375	0.5413	B‴	1.50	0.5905	B‴	1.125	[illegible]
Lowest	.....	1.375	0.5413	.....	1.00	0.3937	.....	1.25	0.4921	.....	1.375	0.5413	.....	1.25	0.4921	.....	1.125	[illegible]
Average measurements..	B′	1.977	0.7783	B′	2.087	0.8216	B′	1.808	0.7118	B′	1.97	0.7755	B′	2.105	0.8287	B′	[illegible]	[illegible]
	B″	2.14	0.8425	B″	2.02	0.7952	B″	1.99	[illegible]	B″	1.88	0.7401	B″	1.918	0.7551	B″	[illegible]	[illegible]
	B‴	2.337	[illegible]	B‴	1.955	0.7696	B‴	1.90	0.7480	B‴	1.735	[illegible]	B‴	2.177	[illegible]	B‴	1.893	0.7473
Average	.....	2.151	0.8468	.....	2.020	0.7952	.....	1.91	0.7480	.....	1.86	0.7322	.....	2.066	0.8133	.....	1.96	0.7716
Measurements above average..	.....	53		.....	63		.....	78		.....	76		.....	77		.....	82	
Measurements below average..	.....	97		.....	87		.....	72		.....	74		.....	73		.....	68	

TABLE I.—*Measurements of fineness of wools*—Continued.

NEW YORK.

RAMS, 2 YEARS OLD.

Catalogue number of samples	673.			674.			675.			676.			677.			678.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.25	2.00	1.50	2.00	2.50	2.00	1.50	1.375	2.125	2.00	2.00	1.50	2.00	2.00	2.50	2.00	1.50	2.75
	1.75	2.00	2.00	2.00	2.00	1.875	1.875	2.50	2.50	2.00	2.125	1.75	1.875	2.25	2.50	2.00	2.75	2.25
	2.00	1.875	2.00	1.75	2.125	1.625	1.50	1.875	1.75	1.875	1.875	2.25	2.125	1.875	2.00	1.75	2.00	2.00
	1.875	1.50	1.75	2.125	1.50	1.75	1.50	1.75	2.00	2.00	1.75	2.00	1.875	2.00	2.00	1.50	1.50	1.75
	2.00	1.75	2.25	2.125	1.75	2.00	1.375	2.00	1.50	2.00	1.50	2.00	1.875	2.125	2.00	2.25	2.125	1.875
	1.75	1.75	1.875	2.125	2.00	1.75	2.00	1.75	1.50	1.875	1.75	2.25	2.00	2.375	1.875	1.75	1.875	1.50
	1.625	2.00	1.75	2.00	2.25	1.75	2.50	1.50	1.75	1.625	2.00	1.75	2.00	2.00	2.125	2.50	1.75	1.25
	1.50	2.50	1.75	1.75	1.50	1.875	1.75	2.00	1.50	2.125	1.75	1.75	1.875	1.625	2.50	2.00	2.125	2.00
	1.75	1.625	2.00	1.50	1.75	1.625	1.50	2.25	1.50	1.875	2.50	2.25	1.875	1.625	1.875	1.75	2.50	2.00
	2.00	1.50	1.375	2.00	1.625	2.00	1.50	2.25	1.625	1.625	1.75	1.625	1.75	1.75	1.75	1.50	2.25	1.875
	1.75	2.375	2.125	2.00	1.875	2.00	1.375	2.00	1.375	1.875	2.00	2.125	2.25	2.25	2.00	2.00	2.00	1.50
	1.625	1.75	1.50	1.875	1.50	1.75	1.75	1.875	1.75	1.50	2.00	1.875	2.00	2.125	2.00	2.00	1.25	1.50
	1.50	1.75	1.50	2.00	1.50	1.50	2.00	2.00	1.25	2.25	1.875	1.50	2.00	2.00	1.625	1.50	1.50	1.25
	2.375	1.50	2.50	2.00	2.00	1.375	2.25	2.25	1.625	2.25	1.75	2.00	2.25	2.00	2.25	2.25	1.625	2.00
	2.00	2.50	2.00	1.75	1.75	1.25	2.125	1.50	2.25	2.50	2.00	2.00	1.875	2.125	1.75	2.00	2.00	1.75
	1.875	1.75	2.125	1.75	1.625	2.00	1.75	1.50	2.125	2.00	1.50	2.50	2.00	1.50	2.375	1.75	2.50	2.00
	2.00	2.00	2.00	2.00	1.50	1.625	2.25	1.875	1.75	1.75	2.00	1.875	2.25	2.25	2.50	2.00	1.875	2.00
	2.00	1.75	2.25	1.875	1.875	1.875	1.75	1.75	3.00	1.625	1.75	2.00	2.375	2.00	2.00	2.25	1.875	2.50
	1.625	1.75	1.75	1.75	2.25	1.25	1.625	2.00	2.125	1.875	2.375	2.00	2.375	2.00	2.00	1.625	1.75	2.25
	1.75	1.50	1.75	2.00	1.25	1.50	1.875	1.375	2.00	1.625	1.75	1.75	2.00	2.00	2.00	2.125	3.00	2.375
	2.125	1.50	1.50	1.375	1.375	1.875	2.50	1.50	2.25	2.50	2.00	2.125	2.00	1.875	2.50	2.50	1.50	2.50
	1.375	1.625	2.00	1.50	1.50	2.00	2.00	2.00	2.50	2.00	1.625	1.50	2.00	1.875	1.875	1.625	1.75	1.875
	1.375	1.50	2.00	2.50	1.75	1.875	1.75	2.00	2.375	2.25	2.00	2.00	2.125	2.25	2.25	1.875	1.625	2.00
	1.50	1.75	1.50	2.50	1.50	1.50	1.625	2.00	2.50	1.50	1.50	2.25	2.25	2.00	2.50	2.50	1.75	1.75
	2.50	1.50	1.875	1.75	2.00	1.875	2.00	1.875	2.00	2.00	2.00	2.50	2.50	2.00	1.875	1.875	1.25	1.50
	1.75	2.00	1.875	2.00	1.75	1.50	2.375	2.00	2.00	1.625	1.75	2.375	1.75	2.125	2.00	2.25	1.50	1.75
	2.00	1.75	1.50	1.625	1.50	1.625	1.50	1.875	2.00	2.00	1.875	2.00	3.00	1.75	2.00	1.875	1.75	2.00
	2.00	1.50	1.625	2.00	2.00	1.875	2.00	1.75	1.75	1.75	2.25	1.75	2.00	2.00	2.00	1.50	1.75	1.50
	2.00	1.875	1.875	2.00	2.125	1.375	1.75	1.75	1.875	2.00	1.875	1.625	2.25	2.25	2.125	2.00	2.125	2.50
	2.00	2.00	1.375	1.25	1.50	1.375	1.50	1.50	1.50	1.75	2.00	2.00	2.375	2.00	2.00	2.50	1.625	2.25
	1.25	2.125	1.375	1.75	1.875	1.25	1.50	2.00	1.75	2.00	1.75	2.50	2.00	1.75	2.00	2.00	2.00	1.50
	1.75	1.50	2.00	2.00	2.00	1.25	1.50	2.125	1.50	2.25	2.25	1.625	2.00	2.00	2.25	1.875	2.25	2.00
	2.00	2.00	1.375	1.875	1.50	1.375	1.625	1.50	2.125	2.00	1.75	1.625	2.00	2.25	2.375	2.50	2.25	1.50
	2.00	1.50	1.375	1.50	1.50	2.00	1.50	2.125	2.25	1.875	2.25	2.00	2.00	2.00	2.00	1.75	1.625	1.375
	1.50	2.00	2.00	2.00	1.75	1.25	1.50	2.25	3.50	1.875	1.75	2.50	2.00	2.375	2.375	3.00	1.00	2.50
	2.00	2.25	2.25	2.25	1.625	2.00	1.75	2.00	1.75	1.875	1.75	2.875	1.75	2.375	2.00	2.25	2.00	3.00
	1.50	1.625	1.75	2.00	2.00	1.50	1.375	2.375	1.625	1.625	2.25	1.875	2.00	1.375	1.875	1.875	2.625	2.00
	1.50	1.625	1.75	1.375	2.25	1.50	1.25	2.00	2.00	2.375	2.00	2.00	1.875	1.75	2.50	2.00	1.625	2.00
	1.50	2.00	1.50	1.50	1.50	1.625	1.75	2.125	2.25	1.625	2.25	1.125	2.00	2.375	2.25	2.00	1.75	1.625
	1.375	1.375	2.00	1.75	1.375	1.75	2.00	1.75	2.375	1.75	1.50	1.50	1.875	2.00	1.625	1.50	2.50	1.75
	1.75	1.75	1.50	2.50	1.25	1.50	2.50	2.00	1.875	2.00	2.50	1.75	2.50	2.00	1.75	3.00	2.25	1.625
	1.50	1.375	1.75	2.00	2.00	2.00	2.00	1.75	1.75	2.00	2.50	1.875	2.25	2.375	1.875	1.25	2.25	1.75
	1.75	2.00	1.75	1.50	2.125	2.125	2.00	2.125	1.625	1.75	1.625	1.375	1.875	1.50	2.25	2.50	2.25	1.50
	2.25	2.00	2.00	2.00	2.00	1.50	1.75	1.875	1.50	2.25	2.00	2.00	1.875	1.625	2.00	2.00	2.00	2.50
	1.50	2.25	1.50	1.875	1.50	1.50	1.875	2.00	1.50	2.375	1.75	2.00	1.875	1.50	2.125	1.50	2.125	1.75
	1.375	2.25	2.00	2.50	2.00	1.625	2.00	2.50	2.00	2.25	2.00	2.125	2.00	2.375	2.00	1.875	2.625	2.00
	2.00	2.00	1.75	2.00	2.125	2.50	1.75	1.75	2.00	1.50	1.625	2.00	2.00	2.375	3.00	2.125	2.50	1.875
	1.50	1.625	1.75	2.125	2.25	2.125	2.00	2.125	1.875	1.75	2.00	2.00	2.00	2.00	2.25	1.75	2.50	2.00
	1.375	1.75	2.00	2.00	1.25	1.75	2.125	1.50	2.25	1.75	2.00	2.00	2.00	1.25	2.00	3.125	2.375	2.00
	1.375	1.50	1.75	1.75	1.125	2.00	2.25	2.00	2.375	2.00	1.625	2.00	2.00	2.00	2.125	1.50	2.25	1.75
Totals	87.875	90.125	90.00	95.125	88.125	85.375	91.25	95.50	97.625	96 50	95.00	97.625	102.75	99.25	105.50	100.375	98.125	96.50

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.50	0.9842	B′	2.50	0.9842	B′	2.50	0.9842	B′	2.50	0.9842	B′	3.00	1.1811	B′	3.125	1.2303
	B″	2.50	0.9842	B″	2.50	0.9842	B″	2.50	0.9842	B″	2.50	0.9842	B″	2.375	0.9350	B″	3.00	1.1811
	B‴	2.50	0.9842	B‴	2.50	0.9842	B‴	3.00	1.1811	B‴	2.50	0.9842	B‴	3.00	1.1811	B‴	3.00	1.1811
Highest		2.50	0.9842		2.50	0.9842		3.00	1.1811		2.50	0.9842		3.00	1.1811		3.125	1.2303
Minimum measurements.	B′	1.25	0.4921	B′	1.25	0.4921	B′	1.25	0.4921	B′	1.50	0.5905	B′	1.75	0.6889	B′	1.25	0.4921
	B″	1.375	0.5413	B″	1.125	0.4429	B″	1.375	0.5413	B″	1.50	0.5905	B″	1.25	0.4921	B″	1.00	0.3937
	B‴	1.375	0.5413	B‴	1.125	0.4921	B‴	1.25	0.4921	B‴	1.125	0.4429	B‴	1.625	0.6397	B‴	1.25	0.4921
Lowest		1.25	0.4921		1.125	0.4429		1.25	0.4921		1.125	0.4429		1.25	0.4921		1.00	0.3937
Average measurements.	B′	1.758	0.6921	B′	1.903	0.7492	B′	1.825	0.7185	B′	1.93	0.7598	B′	2.055	0.8090	B′	2.008	0.7905
	B″	1.803	0.7098	B″	1.763	0.6940	B″	1.91	0.7310	B″	1.90	0.7480	B″	1.985	0.7814	B″	1.963	0.7728
	B‴	1.80	0.7086	B‴	1.708	0.6724	B‴	1.953	0.7688	B‴	1.953	0.7688	B‴	2.110	0.8307	B‴	1.93	0.7598
Average		1.787	0.7035		1.79	0.7047		1.896	0.7464		1.92	0.7559		2.05	0.8070		1.967	0.7744
Measurements above average			65			74			70			80			54			79
Measurements below average			85			76			80			70			■			71

TABLE I.—*Measurements of fineness of wools*—Continued.

NEW YORK.

Catalogue number of samples..	RAMS, 2 YEARS OLD.									EWES, 2 YEARS OLD.								
	691.			692.			[illegible].			679.			690.			681.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.125	2.625	2.50	2.25	[illegible]	1.50	[illegible]	1.50	2.00	2.50	[illegible]	1.75	2.125	[illegible]	2.125	1.875	1.125	[illegible]
	3.00	2.75	2.50	[illegible]	1.75	1.75	2.00	1.75	2.50	2.125	[illegible]	2.00	1.805	[illegible]	2.375	[illegible]	1.23	1.875
	[illegible]	[illegible]	2.625	2.50	1.50	1.875	2.25	[illegible]	1.75	2.25	[illegible]	1.875	[illegible]	1.75	2.00	[illegible]	1.75	[illegible]
	2.25	[illegible]	2.75	1.625	2.25	1.625	2.00	1.75	2.375	2.00	1.75	1.50	1.625	2.50	1.625	2.50	2.125	1.625
	2.75	2.375	[illegible]	2.50	2.25	1.625	2.25	1.75	1.625	1.625	1.50	[illegible]	2.375	[illegible]	2.375	2.625	1.875	1.75
	1.875	1.50	2.75	2.25	2.00	[illegible]	2.125	1.875	1.875	2.125	[illegible]	1.625	2.625	[illegible]	1.875	1.875	1.625	1.50
	2.00	2.25	[illegible]	1.625	1.75	1.625	2.50	2.25	1.75	1.875	1.75	[illegible]	[illegible]	2.125	2.375	2.125	[illegible]	1.875
	2.875	[illegible]	1.875	2.375	1.875	1.375	1.50	[illegible]	2.375	[illegible]	1.75	[illegible]	2.875	2.125	2.375	[illegible]	2.25	[illegible]
	2.875	[illegible]	[illegible]	2.00	2.00	2.00	1.625	[illegible]	1.875	[illegible]	1.875	1.75	2.125	2.50	2.50	1.625	2.125	1.875
	2.75	2.125	2.125	2.00	2.25	2.00	1.50	1.75	1.875	1.875	1.75	1.75	1.875	2.25	2.125	2.50	[illegible]	2.125
	3.00	1.75	2.00	1.875	1.75	1.50	2.375	[illegible]	2.00	2.25	1.125	1.50	2.50	[illegible]	1.875	1.625	2.375	1.875
	2.75	3.25	2.50	1.875	2.50	2.00	2.25	1.50	1.875	[illegible]	1.375	2.125	3.50	[illegible]	2.125	[illegible]	[illegible]	[illegible]
	2.50	2.50	[illegible]	1.875	2.50	2.125	2.50	1.75	2.00	1.625	1.50	1.875	[illegible]	2.00	2.125	1.875	2.375	1.875
	2.25	2.625	2.375	[illegible]	[illegible]	1.875	2.50	[illegible]	1.50	[illegible]	1.75	1.625	2.375	1.25	1.875	2.00	[illegible]	2.25
	2.375	2.75	2.125	2.125	1.50	[illegible]	1.50	[illegible]	2.50	1.75	1.875	2.125	1.625	[illegible]	2.125	2.125	[illegible]	2.00
	2.00	1.75	3.75	2.25	1.625	1.75	1.50	1.50	1.625	[illegible]	1.75	[illegible]	[illegible]	2.375	2.125	2.375	2.75	2.125
	1.875	[illegible]	2.375	2.00	1.75	[illegible]	2.00	1.50	2.375	1.75	2.375	2.50	[illegible]	2.375	[illegible]	1.875	2.25	[illegible]
	1.875	[illegible]	2.625	[illegible]	[illegible]	2.00	1.50	1.50	[illegible]	1.50	1.375	[illegible]	1.75	2.25	2.375	1.875	[illegible]	[illegible]
	3.00	2.125	1.875	2.125	2.375	[illegible]	2.50	1.75	1.50	2.125	1.375	1.875	[illegible]	2.25	1.50	2.00	[illegible]	1.625
	[illegible]	1.50	[illegible]	1.875	1.50	1.50	1.625	1.375	1.875	[illegible]	[illegible]	1.625	2.75	[illegible]	2.50	2.125	2.00	2.375
	2.50	1.50	[illegible]	2.125	1.875	1.50	1.875	1.25	2.50	2.00	[illegible]	2.50	[illegible]	2.00	2.375	2.375	[illegible]	[illegible]
	2.75	1.875	1.625	2.25	1.50	1.75	1.75	2.50	2.375	1.625	[illegible]	1.875	2.125	2.125	[illegible]	[illegible]	[illegible]	1.625
	2.125	1.75	2.75	1.75	1.875	1.50	1.625	2.25	1.875	2.50	1.50	[illegible]	2.125	[illegible]	2.75	2.125	[illegible]	1.50
	2.25	1.625	[illegible]	2.125	[illegible]	2.125	2.50	2.25	2.875	2.25	1.75	1.75	2.25	[illegible]	[illegible]	2.625	1.25	2.375
	[illegible]	2.75	2.375	1.75	2.125	[illegible]	1.875	2.00	2.00	1.875	[illegible]	1.625	2.375	2.50	2.125	[illegible]	[illegible]	[illegible]
	[illegible]	2.125	2.00	1.875	1.75	1.875	2.375	1.50	1.875	1.625	1.50	1.75	2.50	2.25	2.375	1.875	[illegible]	[illegible]
	2.875	2.00	2.125	2.125	1.75	1.625	1.50	2.00	2.125	1.75	1.50	1.75	2.75	2.00	[illegible]	2.375	2.00	2.25
	2.50	1.75	[illegible]	2.00	[illegible]	[illegible]	1.75	2.25	1.875	2.00	2.25	2.25	2.625	1.875	2.00	2.375	[illegible]	2.00
	2.625	[illegible]	3.00	[illegible]	1.75	1.625	2.125	1.75	2.125	1.75	1.875	2.00	2.50	1.75	1.75	1.50	1.75	2.375
	2.00	2.50	2.50	[illegible]	1.50	2.50	2.00	1.875	1.75	2.00	1.625	2.125	2.625	[illegible]	[illegible]	2.125	1.625	2.00
	2.875	2.00	2.50	1.875	1.875	1.75	2.00	1.875	1.875	2.125	2.00	2.00	2.375	2.50	2.25	2.375	2.00	1.875
	2.625	[illegible]	[illegible]	1.75	2.25	1.875	2.50	1.75	1.75	2.25	[illegible]	1.75	2.125	2.125	2.50	2.125	2.25	1.875
	2.875	2.125	1.875	2.00	1.75	2.125	2.00	2.00	2.00	2.125	1.50	1.875	2.625	2.25	1.875	2.375	3.00	2.375
	2.50	[illegible]	2.25	1.875	1.50	[illegible]	2.00	2.00	2.50	2.125	1.75	1.875	2.125	2.75	2.125	2.125	2.125	[illegible]
	2.25	2.00	2.00	1.875	1.375	1.50	2.375	2.25	1.875	2.00	2.00	2.00	2.625	3.00	2.00	1.875	2.375	[illegible]
	2.50	[illegible]	2.375	1.75	2.25	1.875	2.00	1.75	2.50	2.875	2.00	2.00	[illegible]	1.875	1.875	2.50	3.00	1.875
	4.125	2.375	2.50	1.50	1.625	2.125	2.00	2.00	1.875	2.00	2.00	[illegible]	1.875	2.00	1.75	2.375	2.50	2.125
	3.25	2.50	2.125	1.875	[illegible]	2.25	2.25	2.00	2.125	1.75	1.875	2.125	1.75	2.50	3.125	2.375	1.875	1.875
	2.00	1.375	2.25	2.00	1.75	2.00	2.00	1.75	2.50	2.50	2.00	1.875	1.875	[illegible]	1.875	1.50	2.00	1.625
	2.50	1.50	1.875	2.125	[illegible]	1.625	2.00	2.125	2.00	1.625	1.50	2.375	1.50	[illegible]	2.625	2.75	[illegible]	1.875
	2.625	2.50	2.375	2.375	1.75	1.875	1.875	2.25	2.00	1.75	2.125	1.375	1.375	2.25	2.375	1.875	2.00	2.00
	1.75	2.50	2.25	1.70	2.125	1.875	1.625	1.875	2.00	2.25	1.875	1.625	2.125	[illegible]	2.125	2.125	2.50	2.375
	2.125	2.375	3.375	[illegible]	1.50	2.125	2.25	1.75	[illegible]	1.75	[illegible]	1.875	1.875	1.75	1.875	2.75	2.25	1.875
	2.875	2.25	3.50	1.625	1.625	[illegible]	1.75	1.75	[illegible]	1.875	1.50	2.125	1.875	2.25	2.125	1.875	1.50	2.125
	2.25	1.75	[illegible]	1.875	1.625	1.625	2.00	1.75	1.75	1.875	1.625	1.375	2.00	1.75	2.00	1.875	2.00	2.375
	2.125	1.375	[illegible]	2.50	2.25	1.50	2.125	2.00	1.875	2.00	1.875	1.625	3.25	[illegible]	2.125	1.625	1.875	[illegible]
	[illegible]	2.25	[illegible]	1.625	1.375	1.50	1.875	1.75	[illegible]	1.25	2.00	1.875	[illegible]	[illegible]	2.25	1.875	1.75	2.125
	2.375	[illegible]	2.75	2.125	2.375	1.50	1.875	1.50	1.75	1.75	[illegible]	1.875	1.50	2.125	1.50	[illegible]	1.625	1.875
	2.625	[illegible]	2.625	2.25	1.875	2.375	2.50	1.50	2.00	2.75	1.50	1.75	2.125	2.50	2.25	1.875	1.875	1.875
	2.125	1.50	[illegible]	2.125	2.125	2.50	1.375	[illegible]	2.375	[illegible]	1.75	[illegible]	2.25	[illegible]	1.875	1.625	1.75	2.125
Totals.....	124.625	104.375	122.875	100.75	[illegible]	92.25	99.75	91.75	101.675	[illegible]	87.25	[illegible]	109.25	106.25	[illegible]	[illegible]	102.50	90.375

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	4.125	1.6240	B′	2.50	0.9842	B′	2.50	0.9842	B′	2.75	1.0826	B′	3.50	1.3779	B′	2.75	1.0826
	B″	3.25	1.2705	B″	2.50	0.9842	B″	2.50	0.9842	B″	2.375	0.9350	B″	3.00	1.1811	B″	3.00	1.1811
	B‴	3.75	1.4763	B‴	2.50	0.9842	B‴	2.875	1.1318	B‴	[illegible]	0.9842	B‴	3.125	1.2303	B‴	2.50	0.9842
Highest	.....	4.125	1.6240	.....	2.50	0.9842	.....	2.875	1.1318	.....	2.75	1.0826	.....	3.50	1.3779	.....	3.00	1.1811
Minimum measurements.	B′	1.875	0.7380	B′	[illegible]	0.5905	B′	1.375	0.5413	B′	1.25	0.4921	B′	1.375	0.5413	B′	1.50	0.5905
	B″	1.375	0.5413	B″	1.375	0.5413	B″	1.25	0.4921	B″	1.125	0.4429	B″	1.25	0.4921	B″	1.25	0.4921
	B‴	[illegible]	[illegible]	B‴	1.375	0.5413	B‴	1.50	[illegible]	B‴	1.375	0.5413	B‴	1.50	0.5905	B‴	1.50	0.5905
Lowest	.....	1.375	0.5413	.....	1.375	0.5413	.....	1.25	0.4921	.....	1.125	0.4429	.....	1.25	0.4921	.....	1.25	0.4921
Average measurements..	B′	2.493	0.9814	B′	2.015	0.7933	B′	[illegible]	0.7854	B′	1.987	0.7822	B′	2.185	[illegible]	B′	2.072	0.8157
	B″	2.088	0.8220	B″	1.888	0.7433	B″	1.835	0.7224	B″	1.745	0.6870	B″	2.125	[illegible]	B″	2.05	[illegible]
	B‴	[illegible]	0.9677	B‴	1.845	0.7263	B‴	2.038	0.8023	B‴	1.897	0.7468	B‴	2.14	0.8425	B‴	1.988	0.7826
Average.....	.....	[illegible]	[illegible]	.....	1.916	0.7543	.....	[illegible]	0.7700	.....	1.876	[illegible]	.....	2.15	[illegible]	.....	2.036	7.8015
Measurements above average..	.....	[illegible]		.....	71		.....	80		.....	71		.....	[illegible]		.....	58	
Measurements below average..	.....	74		.....	79		.....	70		.....	[illegible]		.....	[illegible]		.....	[illegible]	

TABLE I.—*Measurements of fineness of wools*—Continued.

	NEW YORK.																	
	EWES, 2 YEARS OLD.																	
Catalogue number of samples..	682.			683.			684.			685.			686.			687.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.375	1.625	1.375	1.875	2.00	1.625	3.00	2.00	3.50	2.125	2.00	2.125	2.125	1.50	1.625	2.00	1.75	2.59
	1.50	1.75	2.50	2.50	1.50	1.625	2.00	2.25	1.50	2.375	1.75	2.50	1.625	1.625	1.375	2.00	2.00	2.00
	1.625	1.75	1.625	1.75	2.50	2.25	2.25	2.375	1.75	2.125	1.75	2.375	1.875	2.50	2.875	2.00	1.75	2.125
	1.625	1.50	1.375	2.50	1.75	2.375	2.00	3.00	1.625	2.25	2.00	1.625	1.875	1.50	2.00	2.125	2.00	2.00
	1.75	1.00	1.75	1.625	2.25	1.625	2.625	1.75	1.625	2.00	2.00	2.125	1.625	1.375	1.50	2.00	1.50	1.875
	1.375	1.625	1.375	2.375	2.25	2.375	2.25	2.00	2.00	1.50	1.75	2.00	1.875	1.50	1.875	1.875	1.50	1.50
	2.00	1.875	1.625	2.125	1.50	2.125	1.75	2.25	2.125	2.00	1.75	2.375	1.75	1.75	2.00	2.00	2.125	1.625
	1.50	2.50	1.375	1.875	1.125	1.75	2.00	1.875	2.375	1.375	2.375	3.00	1.875	1.75	1.875	2.00	2.25	2.00
	1.625	2.00	1.75	2.00	1.50	1.875	1.875	2.50	2.625	1.625	1.50	1.875	1.625	1.875	1.75	1.875	1.50	1.875
	1.875	2.50	1.875	1.875	2.00	2.625	1.75	2.875	1.875	1.875	2.00	2.00	1.50	1.375	3.00	1.75	1.625	2.00
	1.625	1.75	1.75	2.00	1.75	2.125	2.50	2.25	2.00	2.00	1.875	2.375	2.50	1.50	2.00	2.375	1.625	2.50
	1.75	1.25	1.875	1.75	1.50	2.25	2.625	2.75	2.00	1.50	1.75	1.875	2.125	2.00	2.125	2.50	2.00	2.125
	1.50	2.00	1.625	2.00	2.25	1.875	2.75	1.50	2.00	1.75	1.875	2.00	1.50	3.00	2.125	1.875	1.625	1.875
	2.00	1.50	1.25	2.00	1.75	1.625	2.125	1.75	2.375	2.875	2.00	1.875	1.375	1.50	2.00	3.00	1.50	2.00
	1.375	1.75	2.125	2.00	1.50	2.00	2.00	2.00	2.125	2.25	1.50	2.00	1.50	1.00	2.50	2.75	2.50	1.875
	1.875	2.00	1.625	2.25	2.50	1.875	1.875	2.00	1.875	1.875	2.00	2.375	1.875	1.25	3.50	2.00	2.75	2.25
	1.125	1.875	1.875	2.00	2.00	1.875	2.00	2.50	2.50	1.75	1.75	2.00	1.625	1.50	2.00	1.625	1.125	1.875
	1.50	2.00	1.625	1.625	2.25	2.00	2.60	2.50	2.00	1.75	1.50	2.25	1.875	3.00	2.375	1.875	1.625	2.00
	1.625	1.875	2.125	1.875	1.25	1.875	2.125	2.375	2.125	2.00	1.50	1.625	2.125	3.125	2.50	1.50	1.75	2.25
	1.375	2.375	1.50	1.75	1.75	1.75	2.25	2.625	2.00	2.375	2.25	2.00	1.875	1.50	2.125	1.50	1.50	2.375
	1.375	1.375	1.625	2.00	2.50	1.875	1.875	2.50	3.125	2.00	2.00	2.00	2.125	1.75	2.625	2.00	1.625	1.875
	1.625	2.00	2.00	2.50	2.00	2.50	1.75	2.25	1.75	2.375	2.00	1.875	2.50	2.00	1.875	2.00	2.25	2.50
	1.50	2.75	1.875	3.00	1.50	2.00	2.00	2.375	2.00	2.00	1.625	1.875	1.875	1.625	1.875	1.875	2.00	2.125
	1.50	2.875	1.625	2.625	1.50	2.00	2.125	2.125	2.625	1.875	1.75	1.875	2.00	1.50	2.375	2.00	1.625	2.50
	1.875	2.00	1.50	1.875	1.75	1.75	2.00	1.875	2.00	1.75	2.25	1.625	2.50	2.00	2.00	2.00	2.375	2.50
	1.375	2.75	2.375	1.875	1.75	2.00	3.00	3.00	1.50	2.50	1.875	2.375	2.125	2.375	2.625	2.00	2.25	2.375
	1.375	2.00	1.875	2.375	1.50	1.875	1.875	2.00	2.00	1.875	1.50	1.625	1.875	1.875	2.25	1.875	2.50	2.375
	1.25	1.25	2.125	2.25	1.875	1.875	1.50	1.875	1.75	2.375	1.50	1.875	2.125	1.50	1.75	3.25	1.50	2.50
	1.875	1.50	1.50	2.875	1.375	2.125	1.75	2.50	2.125	1.625	1.50	1.50	1.875	1.25	2.375	2.50	1.50	1.875
	1.375	2.625	1.50	2.00	1.625	2.125	2.375	1.75	1.875	2.25	1.25	1.625	1.625	1.50	2.50	1.875	2.25	1.375
	2.50	1.50	1.875	2.00	1.50	1.75	1.875	2.00	1.875	2.00	1.75	2.00	1.875	2.00	1.875	2.00	2.375	1.50
	1.50	2.00	1.375	2.25	1.875	2.125	2.00	2.375	2.125	1.875	1.875	2.125	1.625	2.50	2.375	1.875	1.25	2.25
	1.875	2.50	1.75	1.875	2.25	2.125	3.00	1.75	2.00	2.125	2.00	2.00	1.75	2.25	2.125	1.625	1.50	1.875
	1.625	1.75	2.125	1.875	2.00	2.00	2.375	2.25	2.125	1.875	1.375	2.375	2.375	2.375	1.375	1.875	1.50	2.125
	2.50	1.50	1.375	2.125	1.875	1.875	1.875	2.375	2.375	1.375	1.50	2.00	1.875	3.25	2.00	1.75	3.00	2.375
	1.25	2.00	1.25	2.50	2.00	2.25	2.125	1.875	2.125	2.00	1.50	2.375	1.625	2.50	1.75	1.75	2.50	1.75
	1.50	2.125	2.50	2.00	2.00	1.875	2.00	2.00	2.125	2.00	2.00	1.875	2.00	1.25	2.50	1.50	2.75	2.25
	1.875	1.375	1.50	2.25	2.00	2.00	2.00	2.375	2.00	1.625	1.625	2.00	1.375	2.00	1.875	1.875	2.50	2.00
	1.50	1.875	1.875	1.875	2.50	1.75	2.00	2.00	1.875	1.75	1.625	2.00	1.875	1.25	2.50	2.125	2.00	2.375
	1.625	1.50	1.75	1.875	1.50	2.125	2.125	2.00	1.875	2.125	1.50	1.875	1.875	1.875	2.50	2.00	1.875	1.875
	1.375	1.625	2.125	1.875	1.50	2.125	2.125	3.25	2.00	2.375	2.00	2.00	2.375	2.00	1.875	2.00	2.00	1.625
	1.50	1.875	1.625	2.00	1.375	1.75	2.75	2.25	1.625	1.875	1.625	2.125	3.00	1.50	1.875	1.875	2.00	1.875
	1.625	1.50	1.50	2.125	1.625	2.00	2.625	2.125	2.00	1.50	2.25	2.00	2.375	1.25	1.875	1.875	2.50	1.75
	1.875	1.75	2.375	2.125	1.00	1.875	2.50	2.50	2.00	1.875	2.375	2.125	1.875	1.50	2.375	2.50	1.875	2.50
	1.375	1.50	1.50	2.375	2.00	2.75	2.125	2.00	2.375	2.125	2.00	1.875	1.875	2.75	1.875	2.00	1.75	1.875
	1.625	2.00	1.625	2.00	1.625	1.875	1.50	2.25	1.875	1.875	1.625	2.00	1.50	1.50	2.00	1.875	1.50	1.625
	1.75	1.625	2.125	2.125	2.00	2.00	2.125	3.50	2.00	1.875	1.75	1.375	1.875	1.625	1.875	1.50	1.625	2.00
	1.875	2.125	1.875	2.00	2.75	1.875	2.00	2.00	1.625	1.875	1.50	2.375	1.375	1.75	2.50	1.875	2.00	2.125
	1.625	1.625	2.00	1.875	3.50	1.625	2.50	2.25	1.00	1.875	1.50	1.875	1.625	2.50	2.125	2.00	1.75	2.50
	1.625	1.50	1.875	2.125	2.25	2.375	2.00	1.75	2.50	1.75	2.00	1.875	1.75	1.50	2.00	1.75	2.125	1.50
Totals	82.125	92.875	88.125	104.375	93.375	99.75	107.625	112.25	102.25	97.75	90.50	100.875	94.625	92.625	106.625	99.625	96.25	102.50

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.50	0.9842	B′	3.00	1.1811	B′	3.00	1.1811	B′	2.875	1.1318	B′	3.00	1.1811	B′	3.25	1.2795
	B″	2.875	1.1378	B″	3.50	1.3779	B″	3.50	1.3779	B″	2.375	0.9350	B″	3.25	1.2795	B″	3.00	1.1811
	B‴	2.50	0.9842	B‴	2.75	1.0826	B‴	3.50	1.3779	B‴	3.00	1.1811	B‴	3.50	1.3779	B‴	2.50	0.9842
Highest.....	.....	2.875	1.1378	.....	3.50	1.3779	.....	3.50	1.3779	.....	3.00	1.1811	.....	3.50	1.3779	.....	3.25	1.2795
Minimum measurements.	B′	1.125	0.4429	B′	1.625	0.6397	B′	1.50	0.5905	B′	1.375	0.5413	B′	1.375	0.5413	B′	1.50	0.5905
	B″	1.00	0.3937	B″	1.00	0.3937	B″	1.50	0.5905	B″	1.25	0.4921	B″	1.25	0.4921	B″	1.125	0.4429
	B‴	1.25	0.4921	B‴	1.625	0.6397	B‴	1.00	0.3337	B‴	1.375	0.5413	B‴	1.375	0.5413	B‴	1.375	0.5413
Lowest	.....	1.00	0.3937	.....	1.00	0.3937	.....	1.00	0.3937	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.125	0.4429
Average measurements..	B′	1.642	0.6464	B′	2.087	0.8216	B′	2.152	0.8472	B′	1.955	0.7696	B′	1.893	0.7452	B′	1.993	0.7846
	B″	1.858	0.7314	B″	1.868	0.7354	B″	2.245	0.8838	B″	1.81	0.7125	B″	1.853	0.7295	B″	1.925	0.7578
	B‴	1.762	0.6936	B‴	1.995	0.7854	B‴	2.045	0.8051	B‴	2.018	0.7944	B‴	2.133	0.8397	B‴	2.05	0.8070
Average	.....	1.754	0.6905	.....	1.983	0.7807	.....	2.147	0.8452	.....	1.927	0.7086	.....	1.96	0.7716	.....	1.989	0.7830
Measurements above average..	.....	58		.....	80		.....	54		.....	73		.....	65		.....	80	
Measurements below average..	.....	92		.....	70		.....	96		.....	77		.....	83		.....	70	

TABLE I.—*Measurements of fineness of wools*—Continued.

	NEW YORK.																	
	EWES, 2 YEARS OLD.																	
Catalogue number of samples..	688.			689.			690.			6945.			6950′.			6960′.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.75	2.75	2.50	2.50	3.25	2.50	2.00	3.00	2.125	2.125	1.875	2.25	2.50	2.125	3.00	2.00	2.125	2.50
	2.125	2.25	2.00	2.125	2.00	2.00	2.00	2.00	2.00	1.875	2.00	2.00	2.125	2.875	2.75	2.50	2.25	2.00
	3.00	2.50	2.00	2.00	2.50	2.50	2.50	2.50	1.625	1.875	2.00	2.00	2.375	2.50	3.00	2.125	2.125	2.00
	2.75	2.00	1.50	2.125	2.00	2.50	1.875	2.375	1.75	1.75	1.75	2.00	2.50	2.75	2.75	1.875	2.00	2.00
	2.25	2.375	2.50	2.00	2.75	2.00	2.25	2.75	1.50	2.00	1.875	2.00	2.00	2.375	2.50	2.00	1.875	2.00
	2.00	1.50	1.875	2.50	1.50	2.625	2.00	2.25	1.875	2.125	1.875	2.00	2.125	2.25	2.625	1.875	2.00	2.50
	1.75	1.75	2.00	1.75	3.25	3.00	2.00	1.50	2.00	1.625	2.00	2.125	2.00	2.50	2.50	2.25	2.625	2.00
	2.25	1.75	2.00	2.75	2.00	2.125	2.00	2.25	2.375	2.00	2.25	2.25	2.00	1.75	2.50	2.00	2.00	2.00
	2.00	1.75	2.00	1.875	2.00	2.00	1.875	2.50	2.00	2.125	2.50	2.50	2.50	2.25	2.50	1.875	1.50	2.75
	1.75	1.75	2.00	1.75	2.00	2.00	2.00	1.50	2.375	2.00	1.75	2.00	2.50	3.00	2.50	1.875	3.125	2.00
	1.75	1.875	2.00	1.875	2.25	2.50	2.50	1.50	2.00	1.875	2.00	2.375	1.625	1.75	3.00	1.875	2.50	2.50
	2.125	1.75	2.00	1.625	1.75	2.50	1.875	2.25	2.50	1.75	1.75	2.00	2.00	2.25	2.50	1.875	2.125	2.375
	1.75	1.75	2.00	2.50	2.50	2.50	1.50	1.50	1.75	1.875	2.125	2.00	2.50	2.00	2.75	2.75	2.25	2.50
	1.875	1.50	2.00	2.50	2.375	2.75	2.00	2.00	2.00	1.875	2.25	2.125	2.00	2.00	3.00	1.75	2.25	2.375
	1.75	1.875	2.00	2.50	2.75	2.625	2.50	2.125	2.50	1.875	2.375	2.50	2.50	2.00	2.00	2.25	2.00	2.50
	2.125	1.50	2.00	2.375	2.50	2.75	2.375	2.25	2.00	1.50	2.25	2.50	2.00	2.125	2.375	2.00	2.00	2.875
	2.125	2.00	2.00	2.00	2.25	2.00	2.50	2.00	2.00	2.00	2.25	2.50	2.00	2.125	3.375	2.375	3.00	2.50
	2.125	1.875	2.50	2.00	2.00	2.00	2.50	1.875	2.125	1.625	2.375	2.75	1.875	2.00	2.75	1.375	2.00	2.625
	2.00	1.50	2.00	2.625	2.00	1.75	2.00	2.25	1.75	1.875	1.875	2.50	2.25	2.75	2.50	2.375	2.375	2.875
	1.875	1.25	1.50	2.375	2.50	1.875	2.375	2.25	2.00	2.50	2.50	2.00	2.25	2.75	2.50	1.75	1.75	1.875
	1.75	2.50	2.00	1.875	2.375	3.25	2.00	2.125	1.75	1.875	2.625	2.00	2.625	2.50	3.50	2.125	1.50	2.00
	1.875	2.375	2.75	1.875	2.00	2.875	2.125	2.25	2.00	1.625	2.625	2.00	2.00	2.00	2.25	2.625	1.75	2.25
	1.875	2.00	1.875	1.625	2.25	2.75	2.50	1.50	2.50	1.875	2.50	2.00	2.125	2.25	2.625	2.125	3.125	2.50
	2.375	1.625	2.00	2.50	1.50	2.125	2.125	1.75	2.50	2.50	2.00	2.50	2.50	2.00	2.00	2.25	2.50	2.875
	2.375	2.125	2.125	2.75	2.50	4.000	2.00	1.875	2.75	2.00	2.00	2.25	2.50	3.00	2.00	2.00	2.375	2.00
	1.75	2.00	1.813	2.875	2.00	2.50	2.00	2.00	1.875	1.75	1.50	2.125	1.875	2.375	3.00	2.50	2.125	3.00
	2.00	1.75	2.125	1.875	1.50	2.00	2.00	1.875	2.50	2.125	1.625	2.25	2.125	2.125	2.25	2.875	2.25	2.50
	2.125	1.875	2.50	2.50	3.375	1.75	2.125	2.00	2.00	1.75	2.00	2.50	3.25	1.875	2.00	2.75	2.00	3.50
	1.875	1.50	2.50	2.00	2.75	1.875	2.375	2.50	2.25	2.00	2.50	2.50	2.25	1.875	3.00	2.125	3.00	2.375
	2.25	2.00	2.125	1.875	2.00	3.00	2.75	2.50	2.375	2.00	2.25	2.75	2.50	1.75	1.50	2.00	2.50	2.375
	1.875	1.75	2.00	1.875	1.75	3.25	2.00	1.75	2.00	1.875	2.00	2.50	2.75	2.00	2.50	1.75	2.25	2.00
	2.375	1.50	1.375	2.25	2.25	3.00	2.50	2.00	2.375	2.00	2.50	2.125	2.875	1.50	2.875	2.50	2.25	2.50
	2.00	2.125	1.625	2.375	3.00	2.50	2.25	2.00	2.375	2.00	2.50	2.125	2.875	1.25	2.50	2.50	2.125	3.125
	2.50	2.00	3.00	2.00	2.00	3.75	1.875	1.75	2.00	1.50	2.025	2.50	2.75	2.75	2.50	3.50	2.375	2.50
	2.50	2.125	2.25	2.00	2.125	2.375	1.75	1.875	2.00	2.50	1.75	1.875	1.50	2.50	2.50	2.00	3.50	3.00
	2.00	2.00	2.50	2.25	3.50	2.75	2.75	1.75	1.625	2.00	1.375	2.50	2.25	3.00	2.50	2.125	1.50	3.00
	2.875	2.00	2.00	2.00	1.75	2.00	2.00	2.125	1.75	2.125	1.375	2.60	2.375	1.875	2.00	3.00	1.50	3.00
	1.875	2.125	1.625	2.375	2.50	2.75	2.50	2.50	2.125	2.25	1.375	3.00	2.375	2.00	2.75	2.00	1.75	2.50
	2.00	2.25	2.375	2.00	2.50	2.375	2.375	2.25	2.00	1.625	2.00	2.00	3.00	1.375	3.00	2.50	2.00	2.375
	1.75	1.875	1.75	2.125	2.00	2.375	1.50	2.50	3.00	2.00	1.50	2.00	2.50	1.50	2.00	2.25	2.25	2.625
	2.125	2.00	2.375	1.50	2.625	3.00	2.50	2.125	3.00	1.875	2.00	3.00	1.75	1.75	2.50	2.00	2.50	2.875
	2.00	2.00	2.50	1.75	2.00	1.75	1.50	1.75	2.125	2.00	2.00	2.00	1.875	2.00	2.625	2.00	2.375	2.50
	2.00	2.00	2.50	2.50	1.75	2.50	2.00	1.50	2.50	1.75	2.00	1.875	1.25	2.375	2.75	3.625	2.125	3.00
Totals	108.125	109.875	108.50	108.375	118.625	127.625	110.375	104.50	109.625	97.75	103.50	112.125	114.625	109.25	126.625	114.125	113.875	125.75

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	3.00	1.1811	B′	3.25	1.2795	B′	3.50	1.3779	B′	2.625	1.0334	B′	3.25	1.2795	B′	3.625	1.4271
	B″	3.00	1.1811	B″	3.50	1.3779	B″	3.00	1.1811	B″	2.75	1.0826	B″	3.25	1.2795	B″	4.125	1.6240
	B‴	3.00	1.1811	B‴	4.00	1.5748	B‴	3.00	1.1811	B‴	3.50	1.3779	B‴	3.50	1.3779	B‴	3.75	1.4763
Highest		3.00	1.1811		4.00	1.5748		3.50	1.3779		3.50	1.3779		3.50	1.3779		4.125	1.6240
Minimum measurements.	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.375	0.5413	B′	1.25	0.4921	B′	1.375	0.5413
	B″	1.125	0.4429	B″	1.50	0.5905	B″	1.50	0.5905	B″	1.375	0.5413	B″	1.125	0.4429	B″	1.50	0.5905
	B‴	1.375	0.5413	B‴	1.50	0.5905	B‴	1.50	0.5905	B‴	1.875	0.7380	B‴	1.50	0.5905	B‴	1.875	0.7380
Lowest		1.125	0.4429		1.50	0.5905		1.50	0.5905		1.375	0.5413		1.125	0.4429		1.375	0.5413
Average measurements..	B′	2.163	0.8515	B′	2.168	0.8535	B′	2.208	0.8692	B′	1.955	0.7696	B′	2.293	0.9027	B′	2.368	0.8988
	B″	2.018	0.7944	B″	2.373	0.9342	B″	2.00	0.8228	B″	2.07	0.8149	B″	2.185	0.8602	B″	2.275	0.8958
	B‴	2.17	0.8543	B‴	2.553	1.0051	B‴	2.193	0.8663	B‴	2.243	0.8830	B‴	2.593	0.9972	B‴	2.515	0.9901
Average.....		2.117	0.8334		2.364	0.9307		2.163	0.8515		2.089	0.8224		2.357	0.9200		2.358	0.9283
Measurements above average..		72			80			84			82			79			74	
Measurements below average..		78			70			66			67			71			86	

TABLE I.—*Measurements of fineness of wools*—Continued.

	NEW YORK.			PENNSYLVANIA.														
	EWES, 2 YEARS OLD.			RAM-LAMBS.														
Catalogue number of samples..	0976.			570.			574.			577.			578.			580.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.375	2.50	2.375	2.00	1.50	1.625	2.00	1.75	1.75	2.125	2.00	2.00	2.125	1,75	2.00	1.75	2.00	2.00
	2.25	2.50	2.125	1.50	1.75	1.75	2.00	2.00	1.50	2.00	2.125	1.875	2.00	1.625	3.00	2.00	2.25	1.00
	2.375	2.75	2.375	1.50	1.625	1.50	2.00	1.625	2.00	1.875	1.75	2.125	2.625	1.375	2.00	2.00	1.875	1.125
	1.50	1.375	1.875	2.00	2.00	2.00	2.00	2.50	1.50	1.625	1.75	2.00	2.00	2.625	2.25	2.50	1.50	1.25
	1.625	2.00	2.00	1.50	1.00	1.75	1.75	2.00	2.00	2.325	2.125	2.25	3.00	1.875	2.75	2.25	3.00	1.50
	2.375	3.00	2.00	1.50	1.50	2.50	2.00	1.50	2.25	2.00	2.00	2.25	2.125	2.25	2.50	2.00	3.50	2.00
	2.25	2.25	1.875	1.50	1.50	1.75	1.75	1.625	1.50	2.00	2.50	2.00	2.00	2.50	2.25	2.25	2.00	2.25
	1.875	3.00	2.50	1.75	2.00	2.00	1.75	2.00	2.375	2.25	1.75	2.375	2.125	1.25	3.00	2.00	2.50	1.875
	2.625	2.625	2.125	1.875	1.75	1.75	1.50	1.75	1.50	3.125	2.00	2.50	1.625	2.75	2.00	2.50	2.25	2.00
	2.50	2.00	2.25	2.00	1.25	2.00	2.50	1.75	2.00	1.50	1.875	2.25	2.625	1.50	2.50	2.50	1.75	2.50
	3.00	2.00	1.875	1.375	2.00	1.50	2.25	1.75	1.50	2.125	1.875	2.00	3.375	1.125	2.00	1.75	1.875	2.25
	1.875	3.00	2.00	2.50	1.50	1.50	1.25	2.00	1.75	2.00	2.375	1.875	1.875	2.25	1.50	3.50	3.25	2.25
	2.375	2.00	2.50	2.00	1.50	2.00	1.875	1.375	2.125	2.00	1.50	2.875	2.625	2.00	2.00	2.00	2.00	2.25
	2.875	2.375	1.875	1.75	1.25	1.50	2.00	2.00	2.00	2.00	1.625	2.00	2.25	2.00	1.50	2.25	2.00	1.875
	2.375	1.75	2.00	1.625	1.75	1.75	2.00	2.25	2.125	2.50	2.125	2.25	2.50	1.75	2.00	1.75	2.50	2.00
	2.375	2.125	2.125	1.50	1.50	1.50	1.75	1.75	1.50	2.375	2.00	1.75	1.50	1.875	2.50	2.00	2.25	2.00
	2.00	3.00	1.875	2.50	1.625	2.00	2.50	1.50	2.25	2.125	1.875	1.875	2.25	2.00	2.00	2.50	2.00	1.75
	2.50	2.50	2.50	2.625	1.625	1.75	2.00	2.25	1.50	2.375	2.00	2.00	1.75	1.625	2.25	2.375	1.50	1.00
	2.00	3.00	2.25	1.125	1.50	1.875	1.50	2.50	2.00	2.125	1.875	2.25	1.375	1.875	2.50	1.75	1.50	2.00
	2.375	1.875	1.875	2.00	1.75	1.50	1.50	1.50	2.50	2.125	1.875	1.75	2.25	1.875	1.75	1.875	2.50	3.00
	2.375	2.50	3.375	1.50	1.75	2.25	2.125	1.875	1.50	1.50	2.00	2.625	1.625	2.00	2.25	1.50	3.50	3.00
	1.875	2.125	2.625	1.00	1.75	2.50	2.50	2.00	2.00	1.50	2.625	1.75	1.875	1.75	2.25	2.50	3.25	1.50
	2.125	2.00	2.75	1.25	1.75	1.75	1.875	2.00	1.625	2.375	2.625	2.00	2.875	2.00	2.50	2.00	3.00	1.875
	2.375	2.00	1.875	1.25	2.00	2.00	2.125	1.00	1.50	2.125	2.25	2.00	2.875	1.625	1.50	1.75	1.50	2.00
	2.875	3.25	2.50	1.50	1.00	1.75	1.50	2.25	2.125	1.625	2.75	1.75	1.75	1.875	2.625	1.50	1.75	2.25
	2.00	2.125	2.75	2.00	1.25	1.50	1.25	1.50	2.50	1.875	2.125	2.00	2.25	1.75	2.50	2.50	2.00	2.50
	2.00	3.00	2.50	1.625	1.25	1.75	2.00	1.50	2.25	1.50	2.00	2.75	2.00	1.50	2.00	1.75	2.00	1.75
	2.50	2.50	1.875	1.625	1.125	1.75	1.50	2.00	1.75	2.00	1.875	2.375	2.50	1.50	3.00	1.875	2.25	2.00
	1.75	2.00	1.875	1.75	1.50	2.00	1.25	1.50	1.625	1.875	2.375	2.50	2.00	2.50	3.00	2.00	1.625	3.25
	2.125	3.00	1.875	2.00	1.50	1.75	1.75	1.50	1.25	2.125	2.50	1.625	2.25	1.75	2.00	2.25	3.00	3.25
	2.00	2.625	2.50	1.75	2.00	1.875	2.00	2.00	1.75	2.625	2.375	1.875	2.125	2.625	2.50	2.00	2.00	2.00
	2.125	2.50	2.00	2.00	1.875	1.50	2.50	1.75	2.00	2.50	2.375	2.125	1.625	1.50	2.75	2.25	3.50	3.00
	2.50	3.00	2.50	1.50	1.50	1.375	1.00	2.25	2.125	1.50	2.375	2.875	2.50	2.00	2.50	2.50	3.00	1.50
	2.50	2.50	2.00	1.625	1.625	1.50	1.75	2.00	2.50	2.00	1.75	2.125	2.375	1.625	2.50	1.875	2.00	2.00
	2.00	3.00	2.125	1.375	2.00	1.75	1.50	1.25	1.50	1.875	2.00	2.00	2.00	1.50	2.00	2.00	2.875	1.50
	2.50	1.875	2.00	1.50	1.50	1.75	2.00	1.50	1.75	2.125	2.00	2.25	2.125	1.75	1.75	2.00	2.25	1.00
	2.00	2.00	2.00	2.00	1.50	1.50	2.00	1.375	2.00	1.625	2.00	2.125	1.625	2.25	2.75	2.125	1.75	1.25
	2.00	2.00	2.00	1.50	1.625	2.25	1.25	2.00	1.25	3.00	1.625	1.875	1.875	2.25	2.00	2.00	2.00	2.00
	2.125	2.00	2.75	1.75	1.50	1.75	1.50	2.50	1.50	2.625	2.375	2.125	2.00	1.875	2.50	2.25	2.50	1.50
	2.50	2.00	2.50	1.50	1.25	2.00	1.625	2.00	1.00	1.875	1.75	2.25	2.00	1.875	1.75	2.50	2.75	2.00
	2.00	2.50	2.375	2.00	1.50	1.875	2.75	1.75	2.00	2.125	2.25	2.25	2.375	2.00	2.00	1.75	2.00	2.50
	3.50	2.00	2.75	2.50	2.00	1.50	2.00	1.50	2.125	2.75	3.00	2.50	2.375	2.375	2.25	1.875	2.00	2.25
	1.875	2.25	2.625	1.50	1.375	2.125	1.625	1.375	2.00	2.625	3.50	1.875	2.00	2.125	2.50	1.375	2.50	2.125
	2.125	3.50	2.50	1.75	1.75	2.00	1.75	2.00	1.75	2.625	3.00	2.50	2.375	2.375	2.00	2.00	1.50	1.875
	1.50	3.50	2.00	1.625	1.625	1.75	2.00	2.00	2.25	2.00	2.125	1.625	2.00	2.00	1.50	2.25	2.00	1.50
	2.75	2.25	2.375	1.75	1.50	1.50	1.50	1.75	1.50	1.50	1.75	2.00	1.50	1.50	2.125	2.50	2.125	1.50
	2.125	2.375	2.375	1.875	1.75	1.75	2.50	2.00	2.125	1.75	2.375	2.00	2.00	1.875	1.50	2.00	2.50	1.50
	1.625	2.50	2.50	1.50	1.50	1.75	2.50	1.50	1.00	2.125	2.125	1.75	2.125	2.75	2.00	1.50	2.75	1.50
	2.375	2.25	2.50	1.75	1.25	1.75	2.25	1.625	1.125	2.00	2.50	2.375	1.875	1.50	2.50	1.75	2.00	1.375
	2.875	2.50	2.50	1.00	1.50	2.125	2.25	1.875	1.25	2.00	1.625	2.625	3.00	2.125	2.25	1.875	2.50	2.00
Totals.....	112.50	120.75	113.25	85.375	78.875	89.875	94.00	90.50	90.75	104.375	107.00	107.75	107.875	96.00	111.50	102.50	114.375	96.125

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	3.50	1.3779	B′	2.625	1.0334	B′	2.75	1.0826	B′	3.125	1.2303	B′	3.375	1.3287	B′	3.50	1.3779
	B″	3.50	1.3779	B″	2.00	0.7874	B″	2.50	0.9842	B″	3.50	1.3779	B″	2.75	1.0826	B″	3.50	1.3779
	B‴.	3.375	1.3287	B‴	2.50	0.9842	B‴	2.50	0.9842	B‴	3.00	1.1811	B‴	3.00	1.1811	B‴	3.25	1.2795
Highest.....	.....	3.50	1.3779	.....	2.625	1.0334	.....	2.75	1.0826	.....	3.50	1.3779	.....	3.375	1.3287	.....	3.50	1.3795
Minimum measurements.	B′	1.50	0.5905	B′	1.00	0.3937	B′	1.00	0.3937	B′	1.50	0.5905	B′	1.375	0.5413	B′	1.375	0.5413
	B″	1.375	0.5413	B″	1.00	0.3937	B″	1.00	0.3937	B″	1.50	0.5905	B″	1.125	0.4429	B″	1.50	0.5905
	B‴	1.875	0.7380	B‴	1.375	0.5413	B‴	1.00	0.3937	B‴	1.625	0.6397	B‴	1.50	0.5905	B‴	1.00	0.3937
Lowest.....	.....	1.375	0.5413	.....	1.00	0.3937	.....	1.00	0.3937	.....	1.50	0.5905	.....	1.125	0.4429	.....	1.00	0.3937
Average measurements..	B′	2.25	0.8858	B′	1.707	0.6720	B′	1.88	0.7401	B′	2.08	0.8188	B′	2.15	0.8474	B′	2.05	0.8070
	B″	2.415	0.9507	B″	1.577	0.6208	B″	1.81	0.7125	B″	2.14	0.8425	B″	1.92	0.7559	B″	2.28	0.8976
	B‴	2.265	0.8917	B‴	1.797	0.7074	B‴	1.81	0.7125	B‴	2.15	0.8464	B‴	2.23	0.8779	B‴	1.92	0.7559
Average	.....	2.31	0.9094	.....	1.694	0.6669	.....	1.83	0.7204	.....	2.12	0.8346	.....	2.10	0.8267	.....	2.08	0.8188
Measurements above average..	.....	75		.....	77		.....	76		.....	74		.....	67		.....	59	
Measurements below average..	.....	75		.....	73		.....	74		.....	76		.....	83		.....	91	

TABLE I.—*Measurements of fineness of wools*—Continued.

	PENNSYLVANIA.																	
	RAM-LAMBS.			RAMS, 2 YEARS OLD.														
Catalogue number of samples	770.			582.			583.			584.			[illegible]			586.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.625	2.50	2.00	1.25	1.75	1.50	1.50	1.75	1.50	1.50	1.50	1.50	1.75	1.25	1.25	1.375	1.75	1.50
	1.875	2.00	2.125	1.25	1.50	1.25	1.25	1.75	1.75	1.625	1.25	1.25	1.50	1.375	1.50	1.25	1.50	1.50
	1.50	2.50	1.75	1.25	1.75	1.25	1.50	1.50	1.50	1.50	1.50	1.375	1.50	1.50	1.625	1.125	1.75	1.75
	1.625	2.125	2.25	1.125	1.50	1.50	1.50	1.25	1.25	1.25	1.375	1.25	1.25	1.50	1.50	2.00	1.50	1.75
	1.875	2.00	2.00	1.50	1.00	1.50	1.25	1.375	1.50	1.50	1.50	1.25	1.375	1.625	1.75	1.50	1.875	1.50
	1.75	1.875	1.625	1.25	1.25	1.50	1.375	1.25	1.875	1.25	1.50	1.125	1.50	1.50	1.50	1.50	1.75	1.375
	2.50	2.50	2.625	1.50	1.25	1.25	1.50	1.50	1.50	1.25	1.25	1.125	1.50	1.50	2.00	1.125	1.625	1.50
	1.75	2.50	2.50	1.25	1.25	1.25	1.50	1.50	1.25	1.50	1.50	1.50	1.625	1.375	1.50	1.50	1.50	1.25
	2.50	1.875	2.00	1.25	1.75	1.50	1.50	1.25	1.25	1.625	1.25	1.25	1.50	1.375	1.625	2.00	1.50	1.25
	1.75	1.50	2.00	1.25	1.50	1.625	1.25	1.25	1.375	1.50	1.25	1.375	1.75	2.00	1.75	1.75	2.00	1.50
	2.375	1.75	2.00	1.125	1.50	1.125	1.50	1.375	2.00	1.00	1.375	1.375	1.50	2.00	1.75	1.875	1.875	1.50
	3.00	2.25	1.50	1.00	1.50	1.25	1.50	1.50	1.25	1.25	1.375	1.25	1.375	1.625	1.75	2.00	1.50	1.75
	1.75	2.00	2.50	1.00	1.00	1.50	1.50	1.75	1.50	1.875	1.25	1.50	1.50	1.625	1.50	1.75	1.75	1.875
	2.00	1.75	2.00	1.50	1.25	1.50	1.50	1.25	1.50	1.00	1.125	1.125	1.375	1.75	2.00	2.25	0.75	2.00
	2.00	1.625	2.25	1.375	1.25	1.50	1.625	1.50	1.75	1.25	1.25	1.25	1.25	1.625	1.50	1.50	1.50	1.75
	2.00	2.00	1.75	1.375	1.375	1.25	1.00	1.25	1.50	1.50	1.50	1.125	1.25	1.625	1.75	1.875	1.375	1.50
	2.00	1.625	1.625	1.25	1.25	1.75	1.25	1.00	1.25	1.50	1.75	1.375	1.625	1.50	2.00	1.75	1.50	1.375
	1.875	2.375	1.75	1.25	1.375	1.50	2.00	1.375	1.50	1.50	1.375	1.50	1.50	1.25	1.75	1.75	1.75	2.00
	1.625	1.875	2.125	1.75	1.375	1.50	1.50	1.25	1.50	1.50	1.50	1.625	1.50	1.00	1.75	2.00	1.625	2.125
	2.125	2.00	2.50	1.50	1.25	1.375	1.75	1.125	1.50	1.50	1.25	1.50	1.25	1.75	2.00	1.625	1.50	1.75
	1.75	2.125	1.875	1.25	1.25	1.00	1.375	1.625	1.25	1.00	1.375	1.125	1.375	1.75	1.50	1.75	2.00	1.25
	2.375	1.50	1.50	1.50	1.25	1.25	1.50	1.50	1.50	1.625	1.50	1.00	1.75	1.25	1.75	1.625	1.50	1.50
	2.00	1.875	1.875	1.50	1.25	1.25	1.00	1.25	1.00	1.75	1.75	1.00	1.50	1.25	2.00	1.75	0.75	1.75
	2.00	2.625	2.50	1.25	1.50	1.375	1.00	1.50	1.375	1.25	1.25	1.25	1.625	1.25	2.00	1.50	1.50	1.50
	2.00	1.875	2.125	1.125	1.50	2.00	1.75	1.75	1.625	1.50	1.50	1.50	1.50	1.25	1.50	2.00	1.50	1.50
	1.875	1.75	1.875	1.00	1.25	1.75	1.625	1.375	1.50	1.50	1.375	1.25	1.88	1.50	1.75	1.50	2.00	1.50
	2.00	2.25	2.00	2.00	1.50	1.50	1.25	1.25	1.75	1.25	1.38	1.375	1.50	1.75	1.375	1.75	1.50	1.75
	2.00	2.25	1.75	1.50	1.50	1.50	1.50	1.25	1.50	1.50	1.125	1.25	1.50	1.50	1.50	1.75	1.75	1.50
	1.875	1.625	2.375	1.50	1.75	1.50	1.75	1.25	1.50	1.50	1.50	1.50	1.25	1.375	1.625	2.25	1.50	2.00
	1.875	2.50	2.50	1.375	2.00	1.25	1.25	1.375	1.625	1.25	1.75	1.50	1.50	1.00	1.75	1.50	1.375	2.125
	2.50	2.00	2.375	1.50	1.75	1.125	1.00	1.50	1.50	1.50	1.25	1.25	1.25	1.875	2.00	1.50	2.38	2.50
	2.50	2.25	2.00	1.75	1.75	1.50	1.25	1.50	1.625	1.25	1.50	1.625	1.375	1.25	2.00	1.125	2.25	1.50
	1.75	2.00	2.50	2.00	1.50	1.25	1.125	1.375	1.375	1.875	2.00	1.75	1.25	1.625	1.625	1.50	2.00	1.75
	1.75	1.875	2.25	2.25	1.50	1.50	1.50	1.875	1.50	1.625	1.75	1.00	1.50	1.50	2.00	1.375	2.125	1.875
	1.875	2.00	1.50	2.00	1.50	1.75	1.25	1.50	1.50	1.50	1.50	1.25	1.75	1.25	1.50	2.00	1.50	1.75
	2.00	1.50	1.75	1.50	1.50	1.75	1.50	1.50	1.75	1.50	1.25	1.25	1.625	1.50	1.50	1.75	2.00	1.75
	2.50	1.75	2.50	1.50	1.25	1.50	1.625	1.25	1.25	1.50	1.50	2.00	1.50	1.50	1.625	1.75	1.75	1.50
	2.625	2.00	1.50	1.375	1.25	1.25	1.50	1.375	2.00	1.375	1.75	1.125	2.00	1.875	1.25	1.50	1.50	1.75
	2.00	1.875	3.00	1.375	1.25	1.25	1.50	1.50	1.25	1.375	1.50	1.125	1.375	1.00	1.25	2.00	1.50	1.50
	2.875	1.75	2.50	1.375	1.00	1.50	1.50	1.50	1.125	1.75	1.50	1.25	2.125	1.50	1.25	1.75	1.375	1.50
	2.00	2.25	2.00	1.50	0.875	2.00	1.75	1.50	1.25	1.50	1.75	1.50	1.50	1.625	1.50	1.50	1.38	2.00
	2.50	1.50	1.875	1.375	1.25	1.50	1.75	1.50	2.00	1.75	1.25	1.50	1.50	1.50	1.25	1.125	1.50	1.75
	2.125	1.75	2.125	1.25	1.50	1.625	1.25	1.75	1.625	1.00	1.50	1.125	1.125	1.25	1.50	1.50	2.00	1.00
	1.875	2.00	2.00	1.50	1.25	1.25	1.25	1.375	1.75	1.25	1.125	1.625	1.25	1.50	1.75	1.25	1.75	1.125
	2.50	1.875	2.50	1.25	1.50	1.125	1.50	2.00	1.25	1.75	1.625	1.50	1.00	1.50	1.875	1.50	1.50	1.75
	1.875	2.125	2.00	1.00	1.50	1.75	1.50	1.75	1.25	1.625	1.125	1.375	1.50	1.75	2.00	1.75	1.375	1.50
	2.00	2.375	1.625	1.25	1.625	1.50	1.50	1.50	1.25	1.25	1.75	1.25	1.625	1.50	2.00	1.75	1.25	1.625
	2.125	2.00	1.875	1.25	1.25	1.50	1.25	1.50	1.375	1.25	1.50	1.125	1.25	1.25	1.00	2.00	1.50	1.75
	2.125	2.50	2.75	1.25	1.25	1.375	1.50	1.375	1.50	1.375	1.25	1.25	1.375	1.375	1.375	2.00	2.00	1.50
	2.00	2.00	2.00	1.25	1.50	1.50	1.50	1.25	1.00	1.625	1.25	1.50	1.25	1.50	1.50	1.50	1.875	2.00
Totals	103.75	100.375	103.875	67.50	69.125	72.25	73.75	72.25	77.50	72.125	70.625	66.75	72.875	73.000	82.375	85.00	82.25	82.25

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reductions:																		
Maximum measurements.	B′	3.00	1.1811	B′	2.25	0.8858	B′	2.00	0.7874	B′	1.875	0.7382	B′	2.125	0.8366	B′	2.25	0.8858
	B″	2.625	1.0336	B″	2.00	0.7874	B″	2.00	0.7874	B″	2.00	0.7874	B″	2.00	0.7874	B″	2.50	0.9842
	B‴	3.00	1.1811	B‴	2.00	0.7874	B‴	2.00	0.7874	B‴	2.00	0.7874	B‴	2.00	0.7874	B‴	2.50	0.9842
Highest		3.00	1.1811		2.25	0.8858		2.00	0.7874		2.00	0.7875		2.125	0.8366		2.50	0.9842
Minimum measurements.	B′	1.50	0.5905	B′	1.00	0.3937	B′	1.00	0.3937	B′	1.00	0.3937	B′	1.00	0.3937	B′	1.125	0.4429
	B″	1.50	0.5905	B″	0.875	0.3448	B″	1.00	0.3937	B″	1.125	0.4429	B″	1.00	0.3937	B″	0.75	0.2953
	B‴	1.50	0.5905	B‴	1.00	0.3937	B‴	1.125	0.4429	B‴	1.00	0.3937	B‴	1.00	0.3937	B‴	1.88	0.3937
Lowest		1.50	0.5905		0.875	0.3448		1.00	0.3937		1.00	0.3937		1.00	0.3937		0.75	0.2953
Average measurements.	B′	2.075	0.8169	B′	1.33	0.5314	B′	1.47	0.5787	B′	1.44	0.5669	B′	1.45	0.5708	B′	1.70	0.6692
	B″	2.068	0.7995	B″	1.38	0.5433	B″	1.44	0.5669	B″	1.41	0.5551	B″	1.46	0.5747	B″	1.64	0.6456
	B‴	2.078	0.8181	B‴	1.44	0.5669	B‴	1.55	0.6102	B‴	1.33	0.5236	B‴	1.64	0.6456	B‴	1.64	0.6456
Average		2.05	0.8070		1.39	0.5472		1.48	0.5826		1.39	0.5472		1.51	0.5944		1.66	0.6535
Measurements above average		53			72			72			74			55			71	
Measurements below average		97			78			58			76			93			79	

TABLE I.—*Measurements of fineness of wools*—Continued.

	PENNSYLVANIA.																	
	RAMS, 2 YEARS OLD.			WETHERS, 2 YEARS OLD.						EWE LAMB.						EWES, 2 YEARS OLD.		
Catalogue number of samples..	587.			780.			781.			575.			576.			772.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.625	1.25	1.125	1.75	1.625	2.00	1.75	1.25	3.00	1.75	2.00	3.00	2.00	1.50	1.50	2.00	2.00	1.625
	1.25	1.75	1.50	2.00	2.125	1.75	2.00	1.50	2.00	1.75	2.00	3.50	1.50	1.75	1.75	1.75	1.75	2.00
	1.125	1.50	1.25	2.00	1.50	2.00	1.75	1.375	2.625	2.875	1.25	1.50	1.75	2.25	2.375	2.375	2.00	2.00
	1.50	1.125	1.25	1.50	2.375	2.50	2.375	2.00	1.50	1.25	1.50	2.00	1.25	2.50	1.875	2.125	1.875	2.00
	1.50	1.25	1.625	1.625	2.50	2.00	2.875	1.75	2.625	1.00	1.625	1.50	2.00	2.50	1.625	2.375	2.375	2.00
	1.75	1.50	1.125	1.75	2.25	2.50	2.00	2.50	2.00	2.00	1.75	1.75	1.25	2.00	1.625	1.875	2.00	2.125
	1.50	1.625	1.25	1.50	2.00	2.00	2.125	1.25	2.00	1.25	1.50	2.00	1.50	1.75	1.25	1.875	2.00	1.875
	1.375	1.25	1.125	1.75	2.375	2.125	2.00	1.625	2.00	1.50	1.875	1.75	1.125	2.25	1.50	2.375	2.125	2.125
	1.75	1.25	1.125	2.00	2.00	2.00	2.00	2.00	2.125	1.25	2.125	3.25	1.25	1.875	1.75	2.00	1.625	1.625
	1.50	1.375	1.50	1.75	2.00	2.00	2.125	1.75	2.375	1.125	3.75	2.00	2.00	2.00	2.00	1.625	1.875	1.75
	1.50	1.50	1.50	2.00	2.00	2.25	1.90	1.375	2.25	1.625	2.50	2.50	1.75	2.00	1.50	2.125	2.50	1.875
	1.375	1.50	1.625	2.125	1.50	1.75	2.00	1.75	1.875	1.75	2.00	2.00	1.875	1.75	1.625	2.00	2.125	2.125
	1.25	1.50	1.25	1.625	1.50	2.25	2.00	2.00	3.125	1.75	1.75	2.125	1.50	1.625	2.25	1.625	2.00	2.125
	1.50	1.50	1.50	1.75	2.50	1.75	2.25	2.00	2.00	1.50	3.00	2.50	1.75	2.00	1.50	1.875	1.875	2.00
	1.625	1.50	1.50	1.75	1.875	2.50	2.75	2.125	1.875	2.00	2.25	3.00	1.50	2.25	1.375	1.875	2.25	2.375
	1.50	1.25	1.75	1.625	2.00	2.00	2.00	1.50	2.50	1.75	2.00	1.875	2.00	1.25	1.875	1.875	2.375	2.125
	1.75	1.125	1.75	1.50	2.00	1.625	1.875	1.375	2.125	3.00	1.50	2.00	2.25	1.50	2.00	1.75	1.875	1.75
	1.50	1.00	1.625	1.75	2.50	2.00	2.50	1.25	2.50	2.25	1.375	2.125	2.00	1.50	1.875	2.25	1.875	2.25
	1.375	1.625	1.50	1.50	1.75	1.75	1.75	1.375	2.625	1.75	1.625	2.25	1.625	1.75	2.00	2.00	1.625	2.00
	1.25	1.50	1.50	2.00	1.875	2.00	3.00	2.375	2.75	2.00	1.50	1.75	2.00	2.00	1.75	2.00	1.625	2.00
	1.50	1.125	1.25	2.00	1.50	2.50	2.50	2.50	2.00	1.875	1.25	2.00	1.75	1.875	1.75	2.00	2.00	2.00
	1.50	1.50	1.50	1.50	2.00	1.875	1.625	2.75	2.25	1.50	1.25	1.75	2.00	1.125	1.50	1.50	1.875	2.00
	1.75	1.50	1.625	1.75	2.00	2.00	1.875	1.50	2.50	1.625	2.00	1.875	2.25	2.00	1.625	2.00	2.00	2.00
	1.50	1.75	1.50	2.50	1.75	2.50	1.875	1.875	2.00	2.00	1.875	2.00	2.00	1.50	2.00	2.00	2.375	2.00
	1.125	1.50	1.25	2.00	2.00	1.625	2.00	1.50	2.50	2.50	2.00	3.75	1.375	2.00	1.75	1.625	1.625	1.875
	1.50	1.625	1.125	1.50	2.625	2.00	1.625	2.75	3.00	1.25	1.00	2.00	1.75	2.125	1.875	1.75	1.875	2.00
	1.375	1.75	1.25	2.00	2.00	2.00	2.50	1.625	2.00	1.125	1.75	2.50	2.00	1.50	1.50	2.00	2.00	2.00
	1.50	1.50	1.50	1.50	1.625	1.50	2.25	1.50	1.75	1.125	1.50	2.25	1.875	2.00	1.875	1.75	2.00	2.00
	1.25	1.25	1.25	1.75	2.25	2.00	1.875	2.00	2.75	1.25	1.25	2.75	2.00	2.50	1.50	2.125	1.875	1.875
	1.50	1.375	1.75	1.50	2.00	1.875	2.00	2.50	2.50	1.50	1.50	1.50	1.50	1.375	1.625	2.125	1.50	2.00
	1.25	1.00	1.50	2.00	1.50	1.75	2.50	1.75	2.50	1.25	2.00	1.75	1.50	2.25	2.625	2.00	2.00	2.00
	1.25	1.25	1.625	1.375	2.00	1.50	2.125	2.50	2.125	1.50	1.625	1.25	2.00	1.75	1.625	1.75	2.50	2.00
	1.50	1.125	1.25	1.75	1.50	2.00	2.50	2.00	2.75	1.50	1.75	1.50	1.50	1.50	1.625	1.75	1.875	1.50
	1.25	1.375	1.50	1.625	1.75	2.25	2.25	2.25	1.75	1.25	1.875	1.75	2.25	2.00	1.875	2.00	1.875	2.00
	1.50	1.50	1.50	1.50	2.50	2.00	2.00	1.25	1.875	2.00	1.875	2.00	2.00	1.75	1.875	1.75	2.00	2.25
	1.625	2.00	1.125	1.50	1.625	1.625	1.625	2.50	1.50	2.50	1.75	2.50	1.50	3.00	1.875	1.625	1.625	1.875
	1.75	1.50	1.25	1.625	1.75	2.25	2.00	2.875	2.75	1.375	2.00	2.625	1.25	2.00	2.125	2.50	1.625	1.75
	1.375	1.50	1.50	1.375	2.50	2.125	2.25	3.00	2.125	1.50	2.50	2.00	1.125	2.25	2.00	2.50	2.125	1.50
	1.75	1.25	1.50	2.00	2.00	1.75	2.375	2.00	2.375	2.00	1.50	1.50	2.00	2.375	1.50	2.125	2.00	2.375
	1.75	1.50	1.375	2.00	2.00	2.125	2.00	1.75	2.75	2.25	1.375	1.625	2.75	1.875	2.00	2.00	1.75	2.50
	1.75	1.375	1.50	2.00	2.00	2.00	2.25	2.25	2.50	1.125	3.50	2.00	1.75	1.75	1.875	2.00	1.875	1.625
	1.50	1.75	1.375	2.50	1.625	2.375	2.00	2.375	2.00	1.25	1.50	1.625	1.875	1.50	1.625	2.125	1.625	2.625
	1.75	1.25	1.25	2.00	2.125	1.50	2.125	2.25	1.625	1.50	1.25	2.00	2.00	1.50	2.00	2.00	1.75	1.625
	1.50	1.50	1.50	2.00	2.00	2.625	1.875	2.25	1.125	1.75	2.00	2.00	1.75	1.375	2.125	2.125	2.00	2.00
	1.875	1.50	1.50	1.375	2.50	2.50	1.75	2.375	1.875	1.25	1.50	1.75	2.00	1.50	1.375	2.125	2.00	2.00
	1.75	1.50	1.875	1.625	1.75	2.00	1.875	1.50	1.875	1.50	1.375	2.50	1.25	1.75	2.375	2.00	2.125	1.625
	1.50	1.125	1.875	2.00	1.625	2.50	2.125	3.00	1.75	2.00	2.00	2.25	1.50	2.00	2.00	1.75	2.00	2.00
	1.50	1.125	1.375	2.00	1.75	2.375	2.00	3.00	1.875	1.25	1.375	2.00	2.25	2.25	1.375	1.875	1.625	2.375
	1.375	1.25	1.50	2.125	1.875	1.75	2.00	2.25	2.125	2.00	1.75	1.875	2.375	1.125	1.625	1.75	2.00	2.125
	1.50	1.25	1.50	2.25	2.00	2.00	2.50	1.25	1.875	1.50	1.125	1.125	1.125	2.00	1.50	1.50	2.125	2.50
Totals	75.00	70.00	71.75	89.875	98.375	101.625	104.875	99.00	110.25	83.125	91.875	104.125	88.125	94.50	89.00	97.875	97.75	99.75

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	1.875	0.7380	B′	2.50	0.9842	B′	3.00	1.1811	B′	3.00	1.1811	B′	2.75	1.0826	B′	2.375	0.9350
	B″	2.00	0.7874	B″	2.625	1.0334	B″	3.00	1.1811	B″	3.75	1.4763	B″	3.00	1.1811	B″	2.50	0.9842
	B‴	1.875	0.7380	B‴	2.625	1.0334	B‴	3.125	1.2303	B‴	3.75	1.4763	B‴	2.625	1.0334	B‴	2.625	1.0334
Highest.....	.....	2.00	0.7874	.....	2.625	1.0334	.....	3.125	1.2303	.....	3.75	1.4763	.....	3.00	1.1811	.....	2.625	1.0334
Minimum measurements.	B′	1.125	0.4429	B′	1.375	0.5413	B′	1.50	0.5905	B′	1.00	0.3937	B′	1.125	0.4429	B′	1.50	0.5905
	B″	1.00	0.3937	B″	1.50	0.5905	B″	1.25	0.4921	B″	1.00	0.3937	B″	1.125	0.4429	B″	1.50	0.5905
	B‴	1.125	0.4429	B‴	1.50	0.5905	B‴	1.125	0.4429	B‴	1.125	0.4429	B‴	1.375	0.5413	B‴	1.50	0.5905
Lowest	.....	1.000	0.3937	.....	1.375	0.5413	.....	1.125	0.4429	.....	1.00	0.3937	.....	1.125	0.4429	.....	1.50	0.5905
Average measurements..	B′	1.50	0.5905	B′	1.798	0.7078	B′	2.098	0.8259	B′	1.66	0.6535	B′	1.76	0.6929	B′	1.958	0.7708
	B″	1.40	0.5511	B″	1.968	0.7748	B″	1.98	0.7795	B″	1.83	0.7204	B″	1.89	0.7440	B″	1.955	0.7696
	B‴	1.43	0.5629	B‴	2.033	0.8003	B‴	2.205	0.8681	B‴	2.08	0.8188	B‴	1.78	0.7007	B‴	1.995	0.7854
Average	.....	1.44	0.5669	.....	1.93	0.7598	.....	2.094	0.8244	.....	1.85	0.7283	.....	1.81	0.7125	.....	1.96	0.7716
Measurements above average..	.....	93		.....	86		.....	61		.....	70		.....	74		.....	92	
Measurements below average..	.....	57		.....	64		.....	82		.....	80		.....	76		.....	58	

TABLE I.—*Measurements of fineness of wools*—Continued.

PENNSYLVANIA.

EWES, 2 YEARS OLD.

Catalogue number of samples..	773.			774.			775.			776.			777.			778.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.625	2.125	2.00	2.50	2.50	1.375	1.75	2.375	2.375	1.50	1.50	1.75	1.75	1.75	1.50	2.00	1.375	1.625
	2.00	1.875	2.00	1.75	1.75	1.25	1.875	2.25	2.00	1.50	1.50	2.00	2.125	1.75	1.625	1.875	1.50	2.00
	2.00	1.625	2.00	2.875	2.25	1.50	1.75	2.25	2.00	1.50	1.50	1.875	2.00	1.625	1.50	1.625	2.00	1.375
	2.00	1.50	2.125	3.00	1.875	1.75	1.50	1.875	2.00	1.75	1.50	2.00	1.75	2.00	1.625	1.50	2.00	2.125
	2.00	2.25	2.875	2.00	1.75	1.375	1.50	1.875	2.125	1.625	1.50	2.50	2.00	2.00	1.75	1.75	1.75	2.00
	2.00	2.00	2.125	2.00	1.50	1.50	2.00	1.875	2.625	1.75	2.00	2.00	2.00	2.00	1.625	2.00	2.00	1.75
	1.625	1.50	1.50	1.625	2.00	2.00	2.00	2.125	2.375	1.50	1.50	2.00	2.00	1.50	1.625	2.50	1.375	1.625
	1.875	2.125	2.00	2.50	1.625	2.00	2.375	1.75	1.875	1.50	1.75	2.00	1.50	2.00	1.375	1.25	1.50	1.50
	1.625	1.75	1.875	2.50	1.75	1.75	2.00	2.00	2.50	1.625	1.50	1.75	1.875	1.875	1.875	1.50	1.625	2.00
	2.00	2.375	1.50	3.00	2.00	1.50	2.125	2.50	1.625	1.625	2.00	1.50	1.875	2.125	1.875	1.50	1.50	1.50
	2.125	1.625	1.75	2.50	1.625	1.50	2.25	2.00	2.75	1.75	2.125	2.00	1.75	2.125	1.50	1.50	1.75	1.75
	2.125	1.875	2.375	2.00	1.50	1.50	2.75	2.125	1.25	1.75	2.125	2.00	2.00	1.75	1.875	1.625	2.375	1.50
	1.875	1.50	2.00	1.625	2.00	1.50	1.50	2.00	2.00	1.375	1.875	2.125	2.00	2.00	2.00	1.625	1.875	1.50
	2.00	2.00	1.75	2.50	1.75	1.625	2.00	2.25	1.875	1.50	1.50	1.50	2.00	1.625	1.50	1.875	1.875	1.50
	2.00	1.625	2.00	2.00	1.625	2.00	2.00	2.00	2.50	1.75	1.25	1.875	2.125	1.25	1.75	1.875	2.00	1.875
	2.00	1.625	1.75	1.875	1.875	1.25	1.50	1.50	2.50	1.50	1.50	1.50	1.875	2.25	2.00	1.50	2.00	1.625
	1.875	1.875	2.00	1.75	1.75	1.375	1.875	2.00	2.50	1.625	1.75	2.125	1.625	1.875	1.375	1.75	1.375	1.875
	2.25	1.875	2.00	2.00	1.625	1.50	2.125	1.75	2.50	1.50	2.25	1.125	2.125	1.875	2.25	1.75	1.00	2.00
	2.00	1.50	2.00	1.75	2.00	1.50	2.00	2.50	1.75	1.625	2.125	2.00	1.875	2.00	1.50	2.50	1.50	1.50
	2.00	2.25	2.50	1.50	1.375	1.25	2.50	2.25	1.875	1.625	1.75	1.875	2.00	1.875	1.50	1.50	1.50	2.00
	2.00	2.25	1.75	2.00	1.625	1.50	2.00	2.375	2.50	1.75	2.00	2.00	2.25	1.625	1.50	1.50	2.125	2.00
	2.00	2.00	2.125	2.25	2.50	1.625	1.625	2.125	2.125	1.75	1.50	2.00	1.50	1.75	1.75	2.50	1.625	1.50
	2.00	2.25	1.75	1.875	2.375	2.50	2.125	2.50	1.50	1.625	2.00	2.50	2.125	1.875	1.75	1.375	1.50	
	2.25	2.00	2.375	2.50	1.50	2.00	3.375	1.75	1.50	1.50	2.125	1.625	1.625	1.75	1.50	2.125	2.00	
	1.875	1.875	2.375	2.25	2.125	2.00	1.75	2.00	2.625	2.00	2.50	1.875	2.00	2.125	1.50	1.50	1.75	1.50
	2.25	1.625	2.00	2.00	1.875	2.00	2.00	2.125	2.00	1.50	1.50	1.875	2.25	2.50	1.50	1.50	2.00	1.75
	2.25	1.50	2.00	2.00	2.00	1.50	1.75	1.50	3.00	1.875	1.50	2.25	1.625	2.00	1.625	1.75	1.875	2.50
	2.25	2.00	2.00	1.50	2.00	1.50	1.50	2.00	2.25	2.125	2.75	2.25	1.625	2.00	2.00	2.00	2.00	1.625
	1.50	1.50	2.00	2.00	2.00	1.50	1.625	2.50	3.00	1.50	1.625	1.875	1.75	1.50	1.875	1.625	1.50	2.375
	1.50	2.375	2.00	2.00	1.25	1.875	2.50	2.25	2.00	2.25	1.875	1.875	2.125	2.00	1.50	2.125	1.50	1.50
	2.00	2.00	1.75	2.00	1.75	1.50	3.25	2.50	2.25	1.875	1.875	1.375	2.00	2.00	1.375	1.625	1.625	1.375
	2.00	1.50	2.75	2.00	1.875	2.50	1.75	2.25	2.50	1.50	1.875	1.625	1.75	2.00	1.50	2.00	1.50	1.625
	2.00	1.875	2.25	2.00	1.75	2.00	2.125	2.00	1.875	1.50	1.875	2.25	2.00	1.875	2.125	1.875	2.00	1.50
	2.00	2.00	1.625	1.625	1.875	1.875	1.875	2.00	1.875	1.75	2.00	2.00	2.00	1.75	1.50	2.00	1.00	1.875
	2.25	2.00	2.00	1.875	2.50	2.125	2.00	2.125	2.00	2.375	1.875	1.625	2.375	1.875	1.50	1.75	1.25	1.625
	2.00	1.875	2.00	2.375	1.50	2.00	2.50	2.125	1.875	1.625	1.625	1.75	1.875	2.25	2.125	1.50	1.625	2.00
	2.25	1.50	2.00	2.00	1.50	1.50	1.625	2.25	2.00	1.25	2.00	2.125	1.875	2.00	1.50	2.125	1.75	2.375
	2.00	2.125	2.25	2.00	2.00	1.50	2.375	2.00	2.00	1.50	1.50	2.125	2.00	2.00	1.625	1.875	1.375	2.50
	1.50	1.50	1.75	2.00	2.00	1.875	3.00	2.25	1.875	1.50	1.75	2.00	1.625	2.00	1.50	2.00	2.125	2.00
	2.00	1.625	1.625	1.75	1.75	1.75	2.40	2.375	1.625	1.50	1.875	2.375	1.875	1.75	2.00	2.375	2.125	1.625
	1.875	1.875	1.625	2.00	1.50	1.50	1.875	2.25	2.00	1.50	1.50	1.875	2.00	1.50	1.75	1.50	1.375	1.625
	2.00	2.375	1.625	2.00	1.50	2.125	1.875	1.625	1.625	1.50	1.625	1.875	2.00	2.125	1.50	1.75	1.50	1.875
	2.375	2.50	1.25	2.50	1.875	2.25	2.00	3.50	1.875	1.50	1.75	1.375	2.25	1.625	1.375	1.875	1.75	1.75
	2.25	2.50	2.125	1.875	2.00	1.625	2.00	2.00	2.00	1.625	1.875	1.75	1.375	1.625	1.875	2.00	2.00	1.875
	1.50	2.125	1.50	2.25	2.25	1.875	2.125	2.50	2.00	1.75	2.50	1.625	2.25	2.00	1.50	1.875	2.125	1.875
	2.00	2.375	1.50	2.125	1.75	1.50	1.50	2.00	2.50	2.00	1.50	2.00	2.125	1.50	1.50	1.625	1.75	2.50
	2.00	2.50	1.50	1.875	1.50	1.375	1.50	2.00	1.50	1.625	1.625	1.50	2.125	1.875	1.625	2.00	2.50	1.75
	2.25	1.75	1.875	2.50	2.125	1.375	2.00	2.375	1.875	1.50	1.75	2.50	1.875	1.50	1.375	2.00	1.375	1.875
	1.875	1.50	2.00	2.50	1.50	2.00	2.50	2.375	2.00	1.50	1.50	1.50	2.00	2.125	1.375	1.375	1.50	2.00
	2.00	1.75	1.875	1.50	1.50	1.25	2.00	2.00	1.875	1.625	1.875	1.625	2.00	2.00	1.50	1.75	1.50	1.875
Totals	102.375	94.625	99.25	106.75	92.50	83.375	100.375	112.25	106.875	82.625	88.625	94.50	100.375	94.375	83.125	99.50	87.25	91.25

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reductions:																		
Maximum measurements.	B′	3.00	1.1811	B′	3.00	1.1811	B′	3.00	1.1811	B′	2.375	0.9350	B′	2.50	0.9842	B′	2.50	0.9842
	B″	2.50	0.9842	B″	2.50	0.9842	B″	3.50	1.3779	B″	2.75	1.0826	B″	2.50	0.9842	B″	3.00	1.1811
	B‴	2.875	1.1318	B‴	2.50	0.9842	B‴	3.00	1.1811	B‴	2.50	0.9842	B‴	2.25	0.8858	B‴	2.50	0.9842
Highest		3.00	1.1811		3.00	1.1811		3.50	1.3779		2.75	1.0826		2.50	0.9842		3.00	1.1811
Minimum measurements.	B′	1.375	0.5413	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.25	0.4921	B′	1.375	0.5413	B′	1.25	0.4921
	B″	1.375	0.5413	B″	1.25	0.4921	B″	1.50	0.5905	B″	1.25	0.4921	B″	1.25	0.4921	B″	1.00	0.3937
	B‴	1.25	0.4921	B‴	1.00	0.3937	B‴	1.50	0.5905	B‴	1.125	0.4429	B‴	1.375	0.5413	B‴	1.375	0.5413
Lowest		1.25	0.4921		1.00	0.3937		1.50	0.5905		1.125	0.4429		1.25	0.4921		1.00	0.3937
Average measurements..	B′	2.048	0.8062	B′	2.135	0.8405	B′	2.488	0.9795	B′	1.633	0.6307	B′	2.008	0.7905	B′	1.81	0.7125
	B″	1.893	0.7452	B″	1.85	0.7283	B″	2.245	0.8838	B″	1.773	0.6980	B″	1.888	0.7432	B″	1.745	0.6870
	B‴	1.985	0.7814	B‴	1.668	0.6566	B‴	2.138	0.8417	B‴	1.89	0.7440	B‴	1.663	0.6547	B‴	1.825	0.7185
Average		1.97	0.7755		1.89	0.744		2.13	0.8385		1.77	0.6968		1.85	0.7283		1.79	0.7047
Measurements above average			89			66			54			64			81			[illegible]
Measurements below average			111			81			96			86			69			84

TABLE I.—*Measurements of fineness of wools*—Continued.

	PENNSYLVANIA.																	
	EWES, 3 YEARS OLD.																	
Catalogue number of samples..	581.			588.			589.			590.			591.			592.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.50	1.50	2.00	1.25	1.50	1.625	1.75	1.375	1.25	1.00	1.625	1.50	1.625	1.50	1.875	1.625	1.50	1.75
	1.625	1.75	1.50	1.375	1.75	1.50	1.625	1.125	1.50	1.125	1.75	1.75	1.625	1.50	2.00	1.625	2.00	1.75
	1.75	2.00	1.75	1.50	1.375	1.25	1.875	1.375	1.50	1.00	1.375	1.50	1.75	2.00	2.00	1.50	1.50	1.375
	2.00	2.00	1.50	1.625	1.50	1.50	1.625	1.50	1.375	1.00	1.75	1.25	1.75	1.625	1.75	1.875	1.25	1.50
	2.25	1.75	2.50	1.50	1.50	1.50	1.75	1.50	1.75	1.125	1.875	1.75	1.50	1.50	1.875	1.50	1.375	1.125
	2.00	2.00	1.75	1.625	1.50	1.875	1.50	1.50	1.625	1.625	1.50	1.50	1.625	1.75	1.625	1.50	1.75	1.50
	2.00	2.00	1.25	1.50	1.625	2.00	1.50	1.625	1.375	1.50	1.75	1.50	1.50	1.75	1.625	1.25	2.00	1.75
	2.00	2.25	1.50	1.50	1.625	1.50	1.625	1.50	1.50	1.25	1.625	1.75	2.00	2.00	1.75	1.625	1.50	1.50
	2.00	1.50	1.75	1.50	2.00	1.625	1.50	1.50	1.50	1.50	1.50	1.875	1.50	1.50	1.375	1.625	1.50	1.75
	1.75	1.75	2.00	1.50	1.75	1.75	2.125	1.625	1.50	1.25	1.75	2.00	2.00	1.50	1.375	1.375	1.625	1.375
	2.00	1.50	1.50	1.375	1.875	1.50	2.00	1.50	1.50	1.00	1.50	1.25	1.875	1.75	1.875	1.50	2.00	1.625
	1.875	1.50	1.50	1.50	1.50	1.625	1.75	1.125	2.00	1.00	1.75	1.625	2.125	2.00	2.375	1.50	1.25	1.50
	1.50	2.00	1.75	2.00	1.25	1.25	1.75	1.50	1.50	1.375	1.75	1.375	1.625	2.25	1.625	1.75	1.50	1.25
	1.50	1.75	2.50	1.75	2.00	1.75	1.50	1.375	1.625	1.375	1.625	1.125	2.125	2.00	1.50	1.25	1.75	1.25
	2.00	1.75	2.00	1.875	1.50	1.50	1.75	1.50	1.75	1.00	1.75	2.00	2.00	1.75	1.75	1.50	1.00	1.25
	2.00	2.00	1.375	1.75	1.625	1.625	1.625	1.50	1.125	1.375	1.50	2.00	2.00	1.625	1.625	1.50	1.875	1.50
	1.50	2.00	1.50	1.50	1.75	1.75	1.50	1.375	1.875	1.625	1.50	1.375	2.00	1.75	1.50	1.50	1.50	1.50
	1.50	1.75	1.75	1.25	1.50	1.50	1.625	2.125	1.625	1.625	1.50	1.625	2.25	1.50	2.375	1.50	1.375	1.50
	1.50	1.75	1.625	1.625	1.625	1.50	1.875	1.50	1.50	1.625	1.875	1.50	1.75	1.25	2.00	1.50	1.50	1.50
	1.50	1.75	1.75	1.50	1.50	1.625	1.875	1.625	1.50	1.25	1.875	1.625	1.875	1.50	2.00	1.75	2.00	1.25
	1.75	2.00	2.00	1.75	1.50	1.75	1.50	2.00	1.75	1.25	1.50	1.50	1.50	1.50	1.375	1.50	2.00	1.375
	1.50	1.75	1.50	1.50	1.50	1.875	1.875	1.75	1.75	1.25	1.50	1.50	2.00	1.75	2.00	1.50	1.625	1.25
	1.75	1.75	2.00	1.75	1.375	1.625	1.75	1.50	1.50	1.125	1.50	1.50	2.00	1.50	1.75	1.75	1.25	1.375
	2.00	2.00	2.00	1.875	1.375	1.75	1.625	1.375	1.625	1.50	1.25	1.375	1.625	1.625	1.625	1.50	1.125	1.50
	1.75	1.50	1.50	1.50	1.125	1.375	1.50	1.625	1.375	1.125	1.50	1.50	2.375	1.50	1.75	1.50	1.25	1.125
	1.625	1.50	1.50	1.375	1.25	1.75	1.375	1.50	1.75	1.50	1.50	2.00	2.00	1.625	1.50	1.375	1.25	1.50
	1.50	1.25	1.50	1.125	1.50	1.75	1.50	1.375	1.875	1.50	1.75	1.625	1.75	1.625	1.50	1.50	1.625	1.375
	1.50	1.00	2.00	1.50	1.875	1.75	1.625	1.625	1.50	1.00	1.50	1.50	2.00	1.75	1.75	1.625	1.50	1.125
	2.00	1.50	1.75	1.25	1.75	1.50	1.50	1.25	1.50	1.375	1.50	1.625	2.00	2.25	1.625	1.375	1.75	1.25
	1.50	1.75	1.625	1.375	1.50	1.50	1.50	1.625	1.75	1.375	1.75	1.375	1.625	1.75	2.125	1.375	2.00	1.50
	1.75	1.25	1.00	1.75	1.50	1.50	1.50	2.00	1.50	1.50	1.625	1.625	2.00	1.625	1.625	1.50	2.00	1.625
	2.00	1.625	2.00	1.50	2.00	1.75	1.875	1.50	1.50	1.50	1.75	1.50	1.875	1.75	1.50	1.625	1.75	1.50
	1.875	2.00	1.50	1.75	1.50	1.50	1.625	1.375	2.00	1.375	1.625	1.625	2.00	2.25	2.00	1.75	1.50	1.125
	2.50	1.50	1.75	1.875	1.625	1.875	1.50	1.25	2.00	1.50	1.25	1.50	2.25	1.875	1.625	1.50	1.625	1.625
	2.50	1.25	1.625	1.50	1.50	1.75	1.625	1.50	1.625	1.375	1.50	1.375	1.75	2.25	1.50	1.875	1.875	2.00
	2.50	1.50	2.50	1.50	1.75	1.50	1.625	1.50	1.50	1.50	1.625	1.875	1.375	1.625	1.875	1.50	1.50	1.75
	1.50	1.75	2.125	1.375	1.75	1.50	1.50	1.375	1.50	1.50	1.50	1.50	1.75	2.25	1.625	1.375	1.50	1.625
	2.00	2.00	1.50	1.50	2.00	1.50	1.75	1.50	1.50	1.50	1.50	2.00	1.875	1.875	1.75	1.50	1.50	1.625
	2.25	2.00	1.75	1.625	1.75	1.625	1.50	1.50	1.875	1.375	1.50	2.00	1.25	1.875	1.50	1.50	1.75	1.50
	1.50	2.00	2.00	1.75	1.25	1.75	1.50	1.50	1.50	1.625	1.625	1.375	1.875	1.50	1.625	1.75	1.75	1.50
	1.75	1.50	2.25	1.75	1.625	1.75	1.875	1.50	1.50	1.875	1.25	1.25	1.625	1.75	1.875	1.00	1.50	1.875
	1.50	1.75	1.50	1.50	1.75	1.875	1.50	1.125	1.50	1.50	1.50	1.25	1.50	2.375	1.625	1.50	1.75	1.75
	1.50	1.50	1.50	1.625	1.50	1.50	1.375	1.50	1.625	1.50	2.00	1.625	1.75	1.875	1.625	1.75	2.00	1.625
	1.75	1.50	1.50	1.25	1.50	1.375	1.25	1.375	1.50	1.125	1.625	1.50	1.625	2.00	1.625	2.00	1.125	1.625
	1.50	1.375	2.00	1.25	2.00	1.50	3.00	1.50	1.625	1.50	1.00	1.50	1.625	1.75	1.875	1.25	1.25	1.50
	1.50	2.00	1.50	1.50	2.00	1.50	1.375	1.75	1.625	1.625	1.50	1.125	1.75	1.50	1.625	1.375	1.625	1.75
	1.00	2.25	1.75	1.75	1.125	1.75	1.50	1.50	2.00	1.50	1.25	1.50	2.00	1.375	2.00	1.50	2.00	1.00
	1.50	1.875	2.00	1.75	1.625	2.00	1.50	1.50	1.75	2.00	1.00	1.50	1.75	1.625	1.75	1.875	1.125	1.50
	1.25	1.875	2.00	1.625	1.625	1.50	1.50	1.50	1.50	1.375	1.75	1.50	1.875	1.875	1.50	1.50	1.50	1.25
	1.50	1.50	1.625	1.50	1.50	1.625	1.50	2.00	1.50	1.00	1.50	1.50	1.375	1.50	1.625	1.375	1.125	1.375
Totals	87.50	86.25	86.50	77.125	90.00	81.00	82.25	75.625	78.875	68.375	78.25	78.00	90.25	87.125	28.625	77.00	79.875	73.75

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.50	0.9842	B′	2.00	0.7874	B′	3.00	1.1811	B′	2.00	0.7874	B′	2.375	0.9350	B′	2.00	0.7874
	B″	2.25	0.8858	B″	2.00	0.7874	B″	2.125	0.8366	B″	2.00	0.7874	B″	2.375	0.9350	B″	2.00	0.7874
	B‴	2.50	0.9842	B‴	2.00	0.7874	B‴	2.00	0.7874	B‴	2.00	0.7874	B‴	2.375	0.9350	B‴	2.00	0.7874
Highest	.....	2.50	0.9842	.....	2.00	0.7874	.....	3.00	1.1811	.....	2.00	0.7874	.....	2.375	0.9350	.....	2.00	0.7874
Minimum measurements.	B′	1.00	0.3937	B′	1.125	0.4429	B′	1.25	0.4921	B′	1.00	0.3937	B′	1.25	0.4921	B′	1.00	0.3937
	B″	1.00	0.3937	B″	1.125	0.4429	B″	1.125	0.4429	B″	1.00	0.3937	B″	1.25	0.4921	B″	1.00	0.3937
	B‴	1.00	0.3937	B‴	1.25	0.4921	B‴	1.125	0.4429	B‴	1.125	0.4429	B‴	1.375	0.5413	B‴	1.00	0.3937
Lowest	.....	1.00	0.3937	.....	1.125	0.4429	.....	1.125	0.4429	.....	1.00	0.3937	.....	1.25	0.4921	.....	1.00	0.3937
Average measurements..	B′	1.75	0.6888	B′	1.54	0.6118	B′	1.64	0.6456	B′	1.36	0.5354	B′	1.80	0.7086	B′	1.54	0.6062
	B″	1.725	0.6791	B″	1.80	0.7086	B″	1.51	0.5944	B″	1.565	0.6161	B″	1.74	0.6850	B″	1.59	0.6259
	B‴	1.73	0.6811	B‴	1.62	0.6377	B‴	1.578	0.6212	B‴	1.56	0.6141	B‴	1.77	0.6968	B‴	1.47	0.5787
Average	.....	1.74	0.6850	.....	1.65	0.6495	.....	1.58	0.6220	.....	1.49	0.5856	.....	1.77	0.6968	.....	1.53	0.6023
Measurements above average..	.....	85		.....	48		.....	60		.....	102		.....	56		.....	55	
Measurements below average..	.....	65		.....	102		.....	90		.....	48		.....	84		.....	95	

TABLE I.—*Measurements of fineness of wools*—Continued.

	PENNSYLVANIA.																	
	EWES, 3 YEARS OLD.															RAMS—MISCELLANEOUS SAMPLES.		
Catalogue number of samples..	593.			594.			595.			596.			597.			564.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.25	1.50	1.25	1.125	1.50	1.50	2.00	1.50	2.00	1.25	1.50	1.50	1.25	1.50	1.50	2.00	2.00	2.00
	1.25	1.50	1.50	1.50	1.25	1.50	1.75	1.625	1.375	1.375	1.50	1.50	1.25	1.00	1.375	1.75	1.75	1.75
	1.375	1.50	1.50	1.00	1.50	2.00	1.625	1.625	1.50	1.50	1.50	1.75	1.125	1.50	1.375	1.50	1.50	1.50
	1.25	1.125	1.50	1.25	1.50	1.25	1.875	1.875	1.375	1.375	1.375	1.50	1.25	1.00	1.50	2.25	2.25	2.25
	1.50	1.25	1.50	1.25	1.125	1.375	1.50	1.75	1.50	1.50	1.125	1.50	1.00	1.75	1.625	2.125	2.125	1.875
	1.50	1.75	1.50	1.875	1.50	1.875	1.75	2.00	1.625	1.50	1.375	1.25	1.00	1.625	1.125	2.00	2.00	2.00
	1.625	1.25	1.125	1.25	1.75	1.875	1.625	1.625	2.00	1.625	1.50	1.125	1.00	1.50	1.25	1.75	1.75	1.75
	1.50	1.25	1.00	1.00	1.625	1.75	2.25	1.50	1.50	1.50	1.375	1.625	1.125	1.625	1.75	1.50	2.50	2.50
	1.75	1.125	1.00	1.375	1.50	1.625	1.50	1.50	1.75	1.625	1.25	1.50	1.00	1.50	2.00	3.25	2.25	2.125
	1.50	1.125	1.125	1.50	1.75	1.375	1.875	1.75	2.00	1.625	1.50	1.75	1.75	1.50	1.50	1.875	1.375	1.875
	1.625	1.125	1.25	1.50	1.75	1.625	1.50	1.625	1.875	1.50	1.375	1.625	1.50	1.50	1.375	2.00	2.00	2.00
	1.75	1.75	1.75	1.25	1.50	1.125	1.375	1.50	2.00	1.50	1.25	1.25	1.50	1.50	2.00	1.75	1.75	1.75
	1.375	1.50	1.50	1.00	1.25	1.75	1.625	1.875	1.625	1.625	1.50	1.50	1.50	2.00	1.75	1.50	1.50	1.50
	1.50	1.50	1.75	1.625	1.25	1.375	1.50	1.625	1.50	1.75	1.375	1.50	1.50	1.625	1.50	2.75	1.50	2.125
	1.75	1.25	1.50	1.50	1.375	1.875	1.75	1.50	2.00	1.50	1.125	1.625	1.50	1.75	1.625	1.875	1.625	2.875
	1.50	1.375	1.25	1.25	1.50	1.625	1.00	1.875	1.375	1.50	1.25	1.75	1.25	1.375	1.375	3.00	2.00	2.00
	1.125	1.25	1.375	1.125	1.50	1.50	1.25	1.50	1.50	1.875	1.50	1.125	1.125	1.375	1.50	1.75	2.00	1.75
	1.75	1.50	1.375	1.00	1.25	1.625	1.50	1.50	1.50	1.75	1.375	1.25	1.25	1.625	1.50	2.00	2.50	1.50
	1.625	1.50	1.50	1.50	1.50	1.50	1.75	1.50	2.00	1.75	1.50	1.25	1.125	1.25	1.50	2.00	1.50	2.125
	2.00	1.125	1.25	1.50	1.50	1.50	1.50	1.625	1.875	1.75	1.25	1.375	1.50	1.50	1.375	1.625	1.875	1.875
	1.125	1.25	1.00	1.25	1.50	1.50	2.00	1.50	1.625	1.50	1.25	1.625	1.25	1.25	1.25	2.00	2.00	2.00
	1.125	1.125	1.50	1.00	1.50	1.375	1.625	2.00	1.50	1.75	1.375	1.50	1.125	2.00	1.50	1.75	2.00	1.75
	1.375	1.125	1.25	1.25	1.50	1.50	1.50	1.625	1.75	1.50	1.50	1.25	1.50	1.50	1.25	2.50	1.50	2.50
	1.25	1.25	1.25	1.50	1.625	1.75	1.625	1.375	1.75	1.50	1.50	1.375	1.625	1.25	1.50	2.00	1.50	2.125
	1.25	1.50	1.25	1.50	1.75	1.75	1.75	1.50	1.625	1.625	1.75	1.25	1.75	1.125	1.50	2.125	1.375	2.375
	1.75	1.25	1.50	1.00	1.625	1.50	1.75	1.625	1.50	1.50	1.50	1.50	1.75	1.25	1.50	2.00	2.00	2.00
	1.625	2.00	1.375	1.25	1.625	2.00	1.625	1.375	1.75	1.375	1.625	1.375	1.875	1.25	1.375	1.75	2.00	2.50
	1.75	1.25	1.50	1.50	1.50	1.625	2.00	1.75	1.50	1.625	1.50	1.50	1.00	1.50	1.25	2.00	1.50	2.50
	1.50	1.50	1.25	1.125	1.25	2.00	1.625	2.50	1.75	1.625	1.50	1.25	1.625	1.375	1.625	2.00	1.125	2.125
	1.50	1.25	1.25	1.25	1.75	1.75	1.375	1.625	1.50	1.50	1.375	1.50	1.00	1.50	1.50	2.125	1.625	2.375
	1.375	1.375	1.50	1.625	1.75	1.375	1.75	1.50	2.00	1.50	1.50	1.50	1.50	1.50	1.375	2.00	2.00	2.00
	1.50	1.125	1.375	1.50	1.75	1.625	2.00	1.50	1.50	1.50	1.375	1.50	1.75	1.50	1.00	2.50	1.875	2.375
	1.375	1.25	1.625	1.50	1.375	1.50	2.00	1.50	1.875	1.50	1.25	1.50	1.25	1.00	1.125	2.00	1.50	1.50
	1.50	1.50	1.375	1.125	1.50	1.50	1.50	1.50	2.125	1.50	1.50	1.25	1.125	1.625	1.375	2.50	1.625	2.375
	1.50	1.50	1.50	1.50	1.625	1.375	1.75	1.75	2.00	1.50	1.625	1.375	1.50	1.75	1.25	1.875	1.875	2.125
	1.375	1.50	1.25	1.25	1.625	1.25	1.625	1.625	1.625	1.75	1.50	1.50	1.50	1.25	1.625	2.00	2.00	2.00
	1.50	1.375	1.50	1.50	1.875	1.875	1.50	1.50	2.00	1.375	1.50	1.25	1.50	1.125	1.50	1.75	1.50	2.375
	1.00	1.375	1.50	1.50	1.625	1.875	1.625	1.50	1.50	1.50	1.25	1.00	1.00	1.50	1.50	2.50	2.50	1.50
	1.00	1.00	1.25	1.25	1.50	1.50	2.00	1.625	1.75	1.625	1.375	1.25	1.25	1.50	1.50	2.25	1.875	2.625
	1.625	1.25	1.375	1.125	1.50	1.50	1.625	1.75	1.75	1.50	1.50	1.125	1.375	1.375	1.00	2.125	1.375	2.625
	1.375	1.375	1.00	2.00	1.50	1.375	1.50	1.25	1.50	1.375	1.125	1.375	1.50	1.50	1.125	2.50	1.50	2.50
	1.625	1.25	1.125	1.50	1.50	1.625	2.00	1.625	1.625	1.50	1.50	1.50	1.00	1.625	1.25	2.25	2.25	2.375
	1.50	1.50	1.50	1.375	1.625	1.50	1.75	2.00	1.75	1.875	1.375	1.625	1.125	1.125	1.50	1.875	1.875	2.125
	1.25	1.125	1.625	1.50	1.875	1.875	1.75	1.625	1.75	1.50	1.50	1.75	1.375	1.375	1.25	2.00	2.00	2.00
	1.375	1.50	1.25	1.25	1.625	1.50	1.50	1.75	1.50	1.50	1.25	1.50	1.50	1.625	1.625	1.75	1.75	1.75
	1.375	1.00	1.50	0.75	1.00	1.75	1.75	1.50	2.00	1.625	1.125	1.375	1.50	1.75	1.125	2.00	1.50	2.50
	1.625	1.125	1.50	0.75	1.50	1.625	1.625	1.625	1.875	1.50	1.25	1.125	2.00	1.375	1.125	2.25	2.125	1.875
	1.25	2.00	1.125	1.00	1.875	1.875	1.50	1.50	2.00	1.50	2.00	1.25	1.50	1.625	1.25	1.875	1.375	2.625
	1.25	1.375	1.25	1.00	1.625	1.375	1.75	1.75	1.50	1.50	1.625	1.50	1.00	1.50	1.75	2.00	4.00	2.00
	1.50	1.125	1.00	1.375	1.50	1.50	1.875	1.625	1.625	1.50	1.50	1.50	1.125	1.375	1.00	1.75	1.75	1.75
Totals.....	71.75	68.125	68.25	65.875	76.75	79.75	83.75	81.75	83.375	77.50	71.00	71.125	67.625	72.625	71.375	141.25	94.625	106.375

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.00	0.7874	B′	2.00	0.7874	B′	2.25	0.8858	B′	1.875	0.7380	B′	2.00	0.7874	B′	3.25	1.2795
	B″	2.00	0.7874	B″	1.875	0.7380	B″	2.50	0.9842	B″	2.00	0.7874	B″	2.00	0.7874	B″	4.00	1.5748
	B‴	1.75	0.6889	B‴	2.00	0.7874	B‴	2.125	0.8366	B‴	1.75	0.6889	B‴	2.00	0.7874	B‴	2.875	1.1318
Highest		2.00	0.7874		2.00	0.7874		2.50	0.9842		2.00	0.7874		2.00	0.7874		4.00	1.5748
Minimum measurements.	B′	1.00	0.3937	B′	0.75	0.2952	B′	1.00	0.3937	B′	1.25	0.4921	B′	1.00	0.3937	B′	1.50	0.5905
	B″	1.00	0.3937	B″	1.00	0.3937	B″	1.25	0.4724	B″	1.125	0.4429	B″	1.00	0.3937	B″	1.125	0.4429
	B‴	1.00	0.3937	B‴	1.125	0.4429	B‴	1.375	0.5413	B‴	1.00	0.3937	B‴	1.00	0.3937	B‴	1.50	0.5905
Lowest		1.00	0.3937		0.75	0.2952		1.00	0.3937		1.00	0.3937		1.00	0.3937		1.125	0.4429
Average measurements..	B′	1.44	0.5669	B′	1.32	0.5196	B′	1.67	0.6574	B′	1.55	0.6172	B′	1.35	0.5314	B′	2.025	0.7972
	B″	1.36	0.5354	B″	1.54	0.6062	B″	1.63	0.6417	B″	1.42	0.5590	B″	1.45	0.5708	B″	1.892	0.7448
	B‴	1.365	0.5374	B‴	1.60	0.6299	B‴	1.66	0.6535	B‴	1.43	0.5629	B‴	1.43	0.5629	B‴	2.107	0.8295
Average.....		1.386	0.5404		1.48	0.5826		1.65	0.6496		1.46	0.5747		1.41	0.5551		2.008	0.7905
Measurements above average..			68			101			58			98			79			50
Measurements below average..			82			49			92			52			71			100

TABLE I.—*Measurements of fineness of wools*—Continued.

	PENNSYLVANIA.																	
	RAMS—MISCELLANEOUS SAMPLES.												EWES—MISCELLANEOUS SAMPLES.					
Catalogue number of samples..	569.			572.			573.			579.			565.			566.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.50	1.50	2.00	1.50	1.875	1.75	3.00	1.625	2.50	2.00	1.50	2.00	2.00	2.00	2.50	1.50	1.625	1.375
	2.00	1.50	1.75	2.00	2.375	2.00	2.75	2.00	2.50	2.00	2.00	1.75	2.50	2.00	1.625	1.25	1.75	1.50
	2.00	1.625	1.50	2.00	2.00	1.50	2.00	2.00	2.00	2.25	1.75	1.75	2.75	2.50	2.25	2.375	1.50	2.375
	1.50	1.50	2.00	1.50	2.00	2.00	1.875	2.25	2.25	1.75	1.50	2.50	2.00	1.50	2.00	2.00	2.00	1.50
	1.75	2.00	2.00	1.75	1.875	1.75	2.875	2.00	2.00	1.75	2.625	2.25	1.625	1.50	2.625	1.75	1.50	2.00
	1.625	1.655	2.50	2.00	1.625	1.50	2.125	2.00	2.125	2.00	2.00	2.25	1.75	1.50	2.50	1.875	1.50	2.875
	1.50	2.00	1.75	1.875	1.75	2.00	2.375	1.875	1.25	2.25	2.00	2.375	2.00	3.00	2.00	2.125	1.50	1.625
	1.25	1.50	1.50	1.75	1.625	2.00	3.25	2.625	2.50	2.00	2.25	2.00	1.25	1.50	2.50	2.00	2.75	2.50
	1.50	1.50	1.50	1.75	1.75	2.00	1.75	3.75	2.25	2.50	2.00	2.00	2.00	2.50	2.375	1.50	2.00	1.375
	2.00	2.50	1.50	1.875	2.00	1.375	2.50	2.50	2.75	2.00	1.75	2.50	1.50	2.00	2.50	1.75	1.50	1.75
	1.50	1.50	2.00	2.00	1.75	2.50	2.625	2.50	2.00	2.00	2.25	2.50	2.25	1.50	2.50	1.625	1.50	2.00
	2.00	2.00	1.50	2.00	2.50	1.625	1.625	2.50	2.50	1.75	2.50	2.25	2.00	2.00	2.125	2.625	1.375	2.00
	2.00	2.50	2.00	2.125	2.00	1.75	2.875	1.75	2.125	1.50	2.50	2.00	2.25	2.00	2.00	1.25	2.00	2.00
	1.25	1.75	2.00	1.75	1.875	1.50	2.125	2.125	3.50	2.50	2.625	2.50	1.50	2.00	2.00	1.50	1.75	1.875
	1.25	1.50	1.75	1.50	2.00	2.00	2.125	2.00	1.875	2.00	2.00	2.00	1.50	1.50	2.375	1.50	1.50	2.50
	1.375	1.50	2.75	2.00	2.00	1.875	1.75	1.50	1.50	1.75	2.50	1.25	2.00	2.00	1.875	1.50	2.125	2.00
	1.50	1.50	1.50	1.875	2.125	1.625	2.25	4.50	2.00	1.75	2.50	3.25	2.00	2.00	2.375	1.50	1.875	1.875
	1.50	2.00	1.75	1.625	1.75	1.50	3.00	3.00	2.25	1.50	1.75	2.00	2.50	1.50	2.00	1.875	1.50	1.625
	1.75	1.75	2.00	1.50	1.50	1.50	1.50	1.50	2.50	1.50	2.00	2.00	2.00	2.50	2.50	1.75	2.00	1.625
	2.00	1.625	2.00	1.50	1.50	3.625	2.00	2.50	2.125	2.00	2.00	2.25	2.50	1.50	3.125	1.50	1.25	2.125
	2.00	1.75	2.00	1.625	2.375	1.50	2.25	2.50	2.375	2.25	2.25	2.625	1.75	3.00	2.125	2.875	2.875	1.875
	1.75	1.25	1.50	1.75	2.00	2.125	2.00	1.125	2.00	2.00	1.875	1.75	2.00	2.00	2.25	2.00	2.00	2.00
	1.25	1.50	2.00	2.00	1.50	1.875	2.50	1.50	2.00	3.00	2.50	1.75	2.00	2.00	3.50	1.25	2.00	1.50
	2.00	2.00	1.75	2.00	1.625	1.75	1.75	2.00	2.375	2.25	2.50	2.75	2.00	2.50	1.50	1.875	1.50	2.00
	2.50	1.50	2.00	1.75	2.50	1.625	3.50	1.75	2.50	2.50	1.875	2.75	2.00	1.50	3.00	1.875	1.00	1.875
	2.00	1.25	1.625	2.25	1.625	1.50	2.50	2.00	2.00	2.50	2.25	2.625	2.00	2.00	2.125	1.625	1.375	2.50
	1.50	2.00	2.00	1.50	2.00	1.625	1.875	1.875	1.875	2.00	2.50	1.75	2.00	2.00	2.75	1.875	1.25	1.50
	2.00	1.75	2.125	1.625	1.75	1.75	3.125	2.00	2.00	2.00	2.625	2.00	2.00	2.00	2.00	1.50	1.375	1.50
	1.25	1.75	1.875	1.875	2.00	2.25	2.50	2.25	2.50	3.25	2.375	1.50	2.00	2.00	1.875	1.50	1.125	1.625
	1.625	2.00	1.50	1.625	2.00	2.00	1.75	1.75	2.125	2.00	2.50	2.125	1.50	2.00	2.00	2.50	1.875	1.875
	2.00	1.50	2.00	2.00	1.75	2.00	2.625	2.125	3.00	2.50	2.50	2.00	3.50	2.00	1.625	2.00	2.00	1.50
	2.50	1.625	2.00	1.75	2.25	1.50	2.50	1.75	2.375	2.50	2.00	2.50	2.00	2.00	2.375	2.00	1.625	2.00
	1.75	1.50	1.875	1.75	2.00	2.125	2.00	2.00	2.00	2.25	1.75	2.50	1.50	2.00	2.25	1.50	2.50	1.75
	1.00	1.75	1.25	1.50	1.50	1.75	3.00	2.00	2.125	2.50	2.125	1.875	2.00	2.00	2.50	1.875	2.50	1.125
	1.25	1.50	1.375	1.50	1.75	1.875	2.25	2.375	2.00	2.50	2.00	1.50	2.00	1.50	2.00	1.00	2.00	2.50
	2.00	2.50	1.50	2.00	2.00	2.375	2.75	2.00	2.00	2.25	1.50	2.125	1.75	2.25	2.125	1.125	1.25	2.125
	2.00	1.75	1.50	1.875	2.00	2.375	2.25	1.75	2.125	3.00	2.00	2.50	2.25	2.00	2.50	2.375	1.50	2.125
	2.50	2.50	3.00	2.00	1.625	1.75	1.75	1.75	2.00	2.00	2.50	1.00	3.00	2.00	1.75	1.625	1.625	1.625
	1.50	1.50	2.50	1.25	2.125	2.00	2.00	2.125	2.00	1.75	3.00	1.75	2.00	2.00	1.875	2.375	2.00	2.00
	1.625	1.75	2.00	2.00	2.00	1.75	2.75	1.50	2.125	2.25	1.50	1.75	1.50	2.75	2.625	1.50	2.375	3.50
	2.00	1.50	2.00	1.75	2.00	1.75	2.50	1.625	1.75	1.875	2.00	2.50	1.75	2.50	2.00	1.875	1.50	2.75
	1.375	2.00	1.50	2.00	1.625	1.75	2.00	3.00	3.875	1.875	2.25	2.625	1.50	1.50	1.875	1.625	2.00	1.75
	1.50	1.00	1.25	1.875	2.00	1.75	2.00	1.75	3.375	2.125	3.00	2.00	2.00	2.00	2.375	1.50	1.50	1.625
	1.50	1.25	2.00	1.75	2.75	2.50	2.125	1.75	2.50	1.625	2.50	2.25	1.50	2.00	2.00	1.50	1.625	2.75
	1.50	1.50	2.00	2.00	2.50	1.50	1.625	1.50	2.50	1.625	2.50	1.75	2.00	1.50	1.875	2.375	2.00	2.75
	1.625	2.00	1.50	2.00	2.50	1.75	2.625	2.00	2.50	2.375	2.25	1.875	2.00	1.75	1.625	1.625	1.375	2.00
	1.75	1.625	2.00	2.50	1.625	1.875	2.50	3.50	1.625	2.375	2.00	2.00	3.50	1.50	2.00	2.625	1.50	2.625
	2.00	1.25	1.00	1.75	1.50	2.00	2.50	2.50	2.625	2.00	1.75	1.75	2.00	1.50	2.25	1.375	1.75	2.25
	1.50	1.625	1.75	1.75	2.00	1.875	3.50	1.625	4.375	1.75	2.00	2.00	1.50	1.50	1.75	1.75	1.875	2.125
	1.75	2.50	2.00	1.875	1.875	2.50	2.625	1.50	3.625	1.50	2.125	2.125	3.00	1.75	1.875	2.00	1.50	2.125
Totals	86.25	85.25	92.125	91.25	96.625	92.125	118.00	103.375	115.75	106.125	108.50	105.375	101.375	97.50	110.125	89.75	86.875	99.75

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.50	0.9842	B′	2.25	0.8858	B′	3.50	1.3779	B′	3.25	1.2795	B′	3.50	1.3779	B′	2.875	1.1318
	B″	2.60	0.9842	B″	2.75	1.0826	B″	4.50	1.7716	B″	3.00	1.1811	B″	3.00	1.1811	B″	2.875	1.1318
	B‴	3.00	1.1811	B‴	2.50	0.9842	B‴	4.375	1.7224	B‴	3.25	1.2795	B‴	3.50	1.3779	B‴	3.50	1.3779
Highest	.....	3.00	1.1811	.....	2.75	1.0826	.....	4.50	1.7716	.....	3.25	1.2795	.....	3.50	1.3779	.....	3.50	1.3779
Minimum measurements.	B′	1.00	0.3937	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.25	0.4921	B′	1.00	0.3937
	B″	1.00	0.3937	B″	1.50	0.5905	B″	1.125	0.4429	B″	1.50	0.5905	B″	1.50	0.5905	B″	1.00	0.3937
	B‴	1.00	0.3937	B‴	1.375	0.5413	B‴	1.25	0.4921	B‴	1.00	0.3937	B‴	1.50	0.5905	B‴	1.125	0.4929
Lowest	.....	1.00	0.3937	.....	1.375	0.5413	.....	1.125	0.4429	.....	1.00	0.3937	.....	1.25	0.4921	.....	1.00	0.3937
Average measurements..	B′	1.725	0.6791	B′	1.82	0.7165	B′	2.36	0.9291	B′	2.12	0.8346	B′	2.028	0.7984	B′	1.795	0.7066
	B″	1.705	0.6712	B″	1.93	0.7598	B″	2.06	0.8110	B″	2.17	0.8543	B″	1.95	0.7677	B″	1.738	0.6842
	B‴	1.842	0.7251	B‴	1.84	0.7244	B‴	2.31	0.9094	B‴	2.10	0.8307	B‴	2.203	0.8673	B‴	1.995	0.7854
Average	.....	1.754	0.6905		1.863	0.7334	.....	2.24	0.8818	.....	2.13	0.8385	.....	2.06	0.8110	.....	1.842	0.7251
Measurements above average..	.....		60	.....		76	.....		68	.....		64	.....		47	.....		73
Measurements below average..	.....		90	.....		74	.....		82	.....		89	.....		103	.....		77

TABLE I.—*Measurements of fineness of wools*—Continued.

	PENNSYLVANIA.									WISCONSIN.								
	EWES—MISCELLANOUS SAMPLES.									RAMS, 1 YEAR OLD.								
Catalogue number of samples..	567.			568.			571.			736.			737.			738.		
Number of section.....	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.
Actual measurement in centimillimeters.	1.50	1.875	1.50	1.50	2.375	1.50	2.125	1.75	1.625	1.50	2.50	1.625	2.00	2.50	2.00	2.00	2.50	1.50
	1.75	2.00	1.50	2.25	2.00	1.50	1.375	1.50	1.625	1.25	1.75	2.00	2.125	2.375	2.25	1.75	2.375	2.25
	1.875	2.00	1.875	2.25	4.00	2.25	1.25	1.50	1.75	2.125	1.875	2.25	2.25	2.25	2.125	2.25	2.50	2.00
	1.625	2.25	1.375	2.00	2.00	1.75	1.375	1.375	1.75	1.75	2.00	2.75	1.875	1.625	1.875	2.125	2.625	1.75
	1.625	2.25	1.50	1.625	2.125	2.00	2.125	1.50	2.25	2.50	2.25	2.50	2.125	2.125	1.75	2.00	3.00	1.50
	1.25	1.50	1.50	2.50	2.50	2.125	2.00	1.25	1.50	2.625	2.00	2.125	2.50	2.50	2.00	1.25	2.00	1.625
	2.00	2.50	1.375	1.50	2.00	2.50	2.125	1.25	1.50	2.50	2.00	2.25	2.25	2.00	1.625	1.875	2.50	2.00
	1.50	1.625	1.50	1.50	2.125	2.00	1.25	1.50	2.00	2.25	2.375	1.875	2.375	2.125	2.125	1.875	2.00	2.25
	1.75	2.00	1.875	1.50	2.50	1.50	1.375	1.375	1.75	1.50	2.50	1.625	2.125	2.00	1.50	2.00	2.25	2.00
	1.75	1.625	1.625	2.25	2.50	2.375	1.50	1.25	1.75	1.75	2.125	2.00	1.625	2.375	1.50	2.125	2.875	1.75
	1.875	2.00	1.00	2.00	2.00	2.00	1.25	1.75	1.50	1.875	2.00	1.75	1.50	2.25	2.00	2.75	1.50	1.875
	1.50	1.625	2.00	1.50	2.25	2.25	1.375	1.50	1.625	2.00	2.00	1.625	2.50	2.375	2.00	1.875	2.00	2.00
	1.75	1.75	1.625	1.50	2.00	2.25	1.125	1.25	2.00	2.25	2.25	2.00	2.25	2.00	1.625	1.625	1.75	2.125
	1.625	1.50	1.50	1.50	2.25	1.75	1.375	1.50	2.00	1.50	2.375	1.875	1.75	2.25	1.625	2.00	2.00	2.25
	1.75	1.50	1.375	2.50	1.75	1.875	1.375	1.50	1.75	1.625	2.50	1.75	2.00	2.75	2.00	1.875	2.00	2.00
	1.50	2.00	1.25	2.00	2.00	2.00	1.25	1.50	1.75	2.50	2.125	2.00	1.50	1.875	1.75	2.125	1.75	1.50
	2.00	2.00	1.125	1.50	2.00	2.00	1.50	1.50	1.625	2.00	2.25	1.625	1.25	2.00	2.125	1.75	2.50	1.50
	1.625	1.875	1.625	1.50	2.00	2.00	1.375	1.375	2.00	2.00	2.50	1.75	1.875	1.75	2.375	1.50	2.25	2.375
	1.625	2.00	2.00	2.00	1.75	1.875	1.25	1.75	1.75	2.125	2.125	1.50	1.625	1.875	2.125	1.50	2.50	2.50
	1.50	2.00	1.50	1.50	2.50	2.75	1.25	1.125	2.00	1.875	2.25	2.00	1.25	2.00	2.00	1.625	1.50	2.25
	2.00	1.75	1.50	1.375	2.25	1.50	1.625	1.25	1.75	1.75	1.875	2.375	1.625	1.50	2.00	2.00	2.125	1.875
	1.875	2.00	2.125	2.75	1.75	1.875	1.25	1.50	2.00	1.00	2.50	2.125	1.75	1.75	1.75	1.50	1.75	1.25
	1.875	1.75	1.75	2.00	1.50	2.50	1.25	2.00	1.625	1.50	2.00	1.75	1.50	1.50	1.50	2.125	1.625	2.125
	1.625	1.75	1.75	2.25	2.25	1.875	1.25	1.50	2.625	1.625	2.25	1.625	1.625	2.75	1.625	2.00	1.75	2.00
	1.50	2.00	1.50	2.25	2.375	2.50	1.50	1.50	2.00	2.00	2.375	2.00	2.00	2.25	2.00	2.25	1.75	1.875
	1.50	1.75	1.75	1.875	3.00	2.125	1.75	1.75	1.625	1.50	2.00	2.25	1.875	1.50	2.00	1.875	1.625	1.875
	2.00	1.50	1.50	1.25	2.375	2.50	1.25	1.50	1.375	1.75	2.25	2.125	1.375	2.375	1.50	2.125	2.00	2.375
	1.25	2.00	1.625	1.625	2.00	2.625	1.375	1.75	1.50	2.125	2.25	1.875	2.125	1.50	2.375	2.25	2.00	2.125
	1.875	2.375	2.00	1.625	1.75	2.00	1.50	1.25	1.50	2.00	1.875	2.00	1.75	2.00	2.00	1.50	1.00	2.25
	1.625	1.375	1.125	2.875	2.00	3.25	1.125	1.75	1.75	1.75	2.00	1.50	1.625	1.25	2.00	1.625	2.125	1.75
	1.75	2.00	1.625	2.125	2.25	2.50	1.25	1.50	1.75	1.875	2.375	2.125	1.50	1.50	1.75	2.00	2.00	2.00
	1.875	1.875	1.625	1.50	1.50	1.75	1.875	2.00	1.75	1.625	2.25	2.00	1.75	1.625	2.00	2.125	2.25	1.25
	1.625	1.75	1.50	2.50	2.50	3.00	1.375	1.375	1.625	2.00	2.25	2.00	1.125	1.625	1.50	1.375	2.00	2.00
	1.50	1.50	1.50	1.875	3.25	1.625	1.375	1.875	1.625	2.25	2.00	1.625	1.375	2.25	1.75	2.00	2.125	1.625
	2.00	1.625	1.625	1.75	2.00	1.75	1.375	1.125	1.375	2.00	2.125	1.875	2.00	2.00	1.50	1.75	2.125	2.25
	2.00	1.75	1.375	3.00	1.875	3.375	1.625	1.875	1.25	1.875	3.00	2.25	1.50	1.875	2.00	2.125	2.00	1.25
	1.50	2.00	1.50	3.00	2.00	2.50	1.75	1.75	2.00	2.00	2.00	1.25	1.625	2.125	1.50	2.25	2.50	1.125
	2.125	1.50	2.125	1.875	2.00	2.50	1.375	1.375	1.625	2.00	2.00	2.125	1.875	1.75	1.875	1.875	2.00	1.75
	2.00	2.00	1.75	2.50	2.00	2.25	1.75	1.375	1.75	1.50	2.00	2.50	1.50	2.00	2.125	1.375	1.50	1.125
	2.125	1.50	1.75	2.50	2.00	2.00	1.625	1.25	1.375	1.625	2.00	3.00	1.50	2.00	2.25	1.75	2.25	2.00
	2.25	1.75	1.25	2.00	2.125	1.875	1.25	1.125	1.625	1.75	1.875	1.75	1.75	1.50	1.50	2.25	1.875	2.125
	1.875	1.75	1.375	1.875	2.125	2.00	1.875	1.00	1.25	2.00	2.00	1.875	1.625	2.125	2.00	2.125	2.00	1.75
	2.00	1.75	1.625	2.125	2.50	3.00	1.125	1.00	2.125	1.25	1.75	2.00	1.875	1.25	2.00	2.00	2.00	1.625
	1.50	1.75	1.50	2.50	1.75	1.875	1.875	1.375	1.875	2.125	1.875	2.125	1.75	1.00	2.125	1.50	1.50	1.625
	2.125	2.125	1.625	2.125	2.50	1.875	1.50	1.50	1.50	2.00	1.75	2.25	1.125	2.00	2.00	2.00	2.00	1.50
	2.00	1.50	2.00	1.875	2.25	1.875	1.875	1.125	1.50	1.875	2.25	2.125	1.25	2.00	2.25	1.625	1.875	1.50
	1.625	2.00	1.625	1.50	2.00	2.00	1.50	1.50	1.75	2.00	2.00	1.875	2.00	1.875	2.125	1.75	2.00	1.75
	1.75	1.50	2.00	2.00	1.50	2.00	1.50	1.50	2.125	2.125	1.875	2.00	1.125	1.50	1.875	2.25	2.25	1.625
	1.875	1.75	2.00	2.00	1.75	2.00	1.125	1.50	1.50	1.875	2.375	2.25	2.00	1.625	2.25	1.75	2.00	2.00
	1.25	1.75	1.625	1.25	2.25	1.875	1.375	1.375	1.50	2.125	1.875	2.00	1.875	1.50	2.00	1.50	1.50	2.00
Totals	87.75	91.25	79.75	97.00	108.00	104.625	72.875	72.50	87.875	92.25	106.875	98.875	87.625	93.25	96.50	94.50	101.875	84.00

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B'	2.50	0.9842	B'	2.00	1.1811	B'	2.125	0.8366	B'	2.125	1.0334	B'	2.50	0.9842	B'	2.75	1.0826
	B''	2.50	0.9842	B''	4.00	1.5748	B''	2.00	0.7874	B''	3.00	1.1811	B''	2.75	1.0826	B''	3.00	1.1811
	B'''	2.125	0.8366	B'''	3.375	1.3287	B'''	2.625	1.0331	B'''	2.75	1.0826	B'''	3.00	1.1811	B'''	2.50	0.9842
Highest	.....	2.50	0.9842	.....	4.00	1.5748	.....	2.625	1.0331	.....	3.00	1.1811	.....	3.00	1.1811	.....	3.00	1.1811
Minimum measurements.	B'	1.25	0.4921	B'	1.25	0.4921	B'	1.00	0.3937	B'	1.00	0.3937	B'	1.125	0.4429	B'	1.25	0.4921
	B''	1.375	0.5413	B''	1.50	0.5905	B''	1.00	0.3937	B''	1.75	0.6890	B''	1.00	0.3937	B''	1.00	0.3937
	B'''	1.00	0.3937	B'''	1.50	0.5905	B'''	1.25	0.4921	B'''	1.25	0.4921	B'''	1.50	0.5905	B'''	1.125	0.4429
Lowest	.....	1.00	0.3937	.....	1.25	0.4921	.....	1.25	0.3937	.....	1.00	0.3937	.....	1.00	0.3937	.....	1.00	0.3937
Average measurements..	B'	1.755	0.0909	B'	1.94	0.7637	B'	1.46	0.5747	B'	1.87	0.7362	B'	1.753	0.6905	B'	1.89	0.7440
	B''	1.815	0.7145	B''	2.17	0.8543	B''	1.45	0.5708	B''	2.137	0.8413	B''	1.925	0.7578	B''	2.000	0.8031
	B'''	1.595	0.6279	B'''	2.062	0.8236	B'''	1.75	0.6890	B'''	1.978	0.7787	B'''	1.93	0.7598	B'''	1.68	0.6614
Average	.....	1.721	0.6775	.....	2.06	0.8110	.....	1.55	0.6102	.....	1.998	0.7854	.....	1.87	0.7362	.....	1.87	0.7363
Measurements above average..	.....	75		.....	61		.....	58		.....	94		.....	86		.....	96	
Measurements below average..	.....	75		.....	89		.....	92		.....	56		.....	64		.....	54	

TABLE I.—*Measurements of fineness of wools*—Continued.

	WISCONSIN.																	
	RAMS, 1 YEAR OLD.															RAMS, 2 YEARS OLD.		
Catalogue number of samples..	747.			748.			749.			750.			751.			724.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.875	1.875	1.75	2.50	2.25	3.25	2.25	1.75	2.00	1.75	1.50	1.875	2.00	1.50	1.50	2.25	2.25	1.625
	1.75	2.00	1.50	2.375	2.50	2.25	2.75	2.00	1.50	1.75	1.50	2.125	1.75	1.50	1.75	2.75	2.375	1.75
	1.75	1.75	1.375	2.50	2.375	1.50	2.25	3.00	1.75	2.25	1.625	2.25	2.00	1.25	2.00	2.25	2.875	1.50
	1.75	2.50	2.00	1.625	1.875	2.375	2.25	2.25	1.625	2.00	1.00	1.50	1.50	2.00	2.00	1.50	2.00	2.25
	1.50	2.375	1.625	1.25	2.50	2.25	1.875	2.00	2.125	2.00	2.125	1.875	1.625	1.75	1.50	1.625	2.125	1.50
	1.875	2.25	1.875	2.00	2.00	2.00	1.625	1.25	2.50	1.75	1.50	1.375	2.00	1.50	1.75	2.125	1.50	1.75
	2.00	2.00	1.50	2.00	1.875	2.25	1.75	1.75	1.625	1.50	2.00	1.75	1.625	2.00	1.25	2.25	3.00	2.25
	2.00	2.125	1.50	2.125	1.875	2.375	1.625	1.625	2.00	1.75	2.25	2.00	2.00	2.00	1.25	2.00	2.50	2.00
	1.75	1.875	1.625	2.00	2.375	1.75	2.125	1.625	1.25	1.50	1.50	1.50	1.50	1.75	1.625	2.50	2.25	1.625
	3.125	2.00	1.50	1.75	2.00	1.50	2.50	1.625	1.75	2.375	1.25	2.00	1.625	1.50	1.50	2.875	2.00	2.25
	1.50	2.25	1.75	1.875	1.875	2.00	2.125	1.25	2.00	2.50	2.00	2.00	1.50	1.50	1.50	1.50	1.50	2.25
	1.25	2.00	1.875	1.75	1.75	2.50	2.25	2.00	1.50	1.50	2.50	2.00	1.25	2.00	1.625	2.00	1.625	1.50
	1.25	2.125	1.875	2.00	1.50	2.625	2.25	2.50	1.00	1.50	2.375	1.75	1.50	1.125	1.625	2.00	1.50	1.625
	1.375	1.875	1.50	2.50	1.625	3.25	2.50	1.50	1.50	1.50	1.00	2.125	1.625	2.00	1.75	1.875	2.25	2.125
	1.875	1.75	1.50	2.50	3.00	1.75	2.25	1.50	2.00	1.375	2.00	2.25	1.25	1.50	1.50	2.125	2.125	1.875
	1.50	2.00	1.75	1.625	2.375	1.75	2.00	1.625	1.25	1.50	1.375	2.00	1.375	1.625	2.50	2.25	2.125	2.00
	2.00	2.25	2.00	2.00	1.00	2.125	2.50	1.75	1.75	1.625	2.125	1.50	1.50	1.50	2.125	2.00	2.00	2.00
	1.75	1.875	1.50	2.125	2.25	2.00	2.375	1.50	2.25	1.75	1.625	1.50	2.00	1.125	2.125	3.375	1.875	1.75
	2.25	2.00	1.875	1.75	2.50	1.75	1.50	1.50	1.50	1.00	1.50	2.00	1.625	1.50	2.50	1.75	2.25	2.25
	2.25	2.00	1.875	2.00	2.875	1.875	2.00	1.625	1.50	1.25	2.50	1.75	2.00	2.00	2.00	1.875	2.00	1.75
	2.125	2.00	1.75	1.875	1.50	1.75	2.25	1.625	2.50	1.75	1.50	2.00	1.50	2.50	2.00	2.00	2.00	2.50
	1.25	1.75	1.75	2.125	2.00	1.75	2.50	2.00	2.00	2.00	2.00	2.25	1.50	1.50	1.50	2.00	2.125	1.875
	1.725	1.625	2.00	2.00	2.25	1.625	2.00	1.50	2.00	1.25	1.25	1.50	1.25	1.50	2.00	1.75	1.625	2.25
	1.75	1.75	2.25	1.25	2.375	1.375	1.875	1.25	1.50	1.00	1.50	1.50	2.00	2.00	1.25	1.875	1.75	2.125
	1.25	1.625	1.75	2.50	2.25	2.00	1.75	1.50	1.50	1.625	2.00	1.25	1.125	1.50	2.25	2.375	2.125	2.50
	2.00	1.625	2.375	2.00	2.00	1.75	1.50	1.50	2.25	1.50	2.00	2.125	1.625	1.625	1.50	2.50	2.125	2.00
	1.50	1.50	2.25	1.375	2.125	2.00	2.325	1.50	1.75	1.00	1.375	1.75	2.00	1.625	1.50	1.75	1.50	1.625
	1.625	1.375	2.125	2.125	1.875	2.125	2.00	2.50	1.50	1.25	2.00	2.125	1.50	1.25	2.00	1.625	1.625	1.75
	1.75	2.375	2.00	2.00	2.00	2.375	2.125	2.00	1.50	1.125	2.50	1.75	2.00	2.00	2.00	3.00	1.875	1.50
	1.875	1.75	1.75	1.75	2.00	1.75	1.75	2.00	1.75	1.125	1.25	2.00	2.125	2.125	2.625	2.75	2.50	2.00
	2.25	2.00	2.125	1.875	1.75	2.25	2.75	1.625	1.375	1.25	1.375	1.50	1.25	1.00	1.50	2.00	2.00	2.25
	1.75	1.50	1.50	1.125	1.625	2.375	1.375	1.50	1.375	1.375	1.625	1.50	2.00	1.50	2.50	2.125	2.00	2.00
	1.75	1.625	2.00	1.75	1.75	2.25	1.25	1.50	2.00	1.25	1.00	1.50	1.25	1.875	2.50	2.00	2.125	1.875
	1.625	1.875	1.75	1.75	2.00	2.25	2.75	1.875	2.00	2.125	1.00	1.50	1.75	2.00	2.00	2.125	2.00	2.00
	1.375	1.875	1.625	1.875	1.50	2.00	2.875	1.75	1.50	1.50	1.25	2.25	1.625	2.25	1.625	1.875	2.00	1.875
	1.375	2.00	1.625	1.50	2.25	1.375	2.375	2.50	2.00	1.00	1.25	2.00	1.50	1.75	1.625	1.75	1.00	2.00
	1.875	1.75	1.50	2.00	1.75	2.25	2.00	3.00	2.125	2.50	1.50	1.625	1.25	1.25	1.75	2.50	1.375	1.625
	1.25	2.00	2.00	2.625	1.625	2.125	2.125	0.75	1.50	1.50	1.50	1.50	1.125	1.75	1.25	2.375	1.75	2.25
	1.50	2.00	1.875	2.125	1.75	2.00	2.375	1.50	1.625	1.00	1.625	2.00	1.00	2.00	2.25	2.25	2.00	2.00
	1.625	2.375	2.375	1.50	1.75	2.125	3.00	1.50	1.625	1.375	1.625	2.00	1.50	2.50	1.50	2.125	2.25	1.75
	1.75	2.00	1.50	1.50	2.00	2.00	1.25	1.25	1.50	1.75	1.50	1.25	1.50	2.375	1.50	2.00	2.125	1.625
	2.125	2.00	1.625	2.00	2.75	1.75	1.875	1.75	1.625	1.00	1.625	1.75	1.75	1.50	2.00	2.125	2.00	2.125
	2.00	1.75	1.75	1.75	2.375	1.75	2.00	1.00	1.75	1.25	1.25	2.00	1.25	1.75	1.75	1.875	2.25	2.00
	2.00	1.625	2.125	2.25	1.50	2.00	2.00	1.00	1.50	1.75	2.00	2.00	1.125	1.625	2.00	1.375	2.25	1.50
	2.00	1.50	1.875	2.00	1.50	1.875	1.875	1.625	2.00	1.50	1.75	1.00	1.25	2.00	2.50	2.00	1.375	1.375
	1.875	1.75	1.75	3.25	2.00	2.125	2.50	1.50	1.625	1.50	2.50	2.00	2.50	1.50	2.50	2.00	1.50	1.50
	1.50	2.00	1.875	2.25	2.125	2.00	2.75	2.00	1.50	2.00	1.50	1.50	2.375	1.50	1.50	2.25	2.00	1.75
	1.375	1.875	1.75	1.25	2.25	1.75	3.00	1.625	1.50	2.25	2.00	1.50	1.75	1.50	1.625	2.125	2.25	2.00
	1.25	1.75	1.75	1.875	2.00	2.00	1.50	1.50	1.375	1.75	1.50	2.00	2.00	2.00	1.75	1.875	2.00	2.125
	2.00	2.00	2.00	2.00	2.50	1.50	1.50	1.50	2.00	1.25	1.25	1.00	1.75	1.75	1.50	2.00	1.875	1.875
Totals	87.875	95.50	90.125	97.50	101.50	100.375	106.00	85.25	86.00	78.625	83.25	88.00	81.375	85.625	91.125	105.25	99.50	94.875

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	3.125	1.2303	B′	3.25	1.2795	B′	3.00	1.1811	B′	2.50	0.9842	B′	2.50	0.9842	B′	3.375	1.3287
	B″	2.50	0.9842	B″	3.00	1.1811	B″	3.00	1.1811	B″	2.50	0.9842	B″	2.50	0.9842	B″	3.00	1.1811
	B‴	2.375	0.9350	B‴	3.25	1.2795	B‴	2.50	0.9842	B‴	2.25	0.8858	B‴	2.625	1.0334	B‴	2.50	0.9842
Highest	.....	3.125	1.2303	.....	3.25	1.2795	.....	3.00	1.1811	.....	2.50	0.9842	.....	2.625	1.0334	.....	3.375	1.3287
Minimum measurements.	B′	1.25	0.4921	B′	1.125	0.4429	B′	1.25	0.4921	B′	1.00	0.3937	B′	1.00	0.3937	B′	1.375	0.5413
	B″	1.50	0.5905	B″	1.00	0.3937	B″	0.75	0.2953	B″	1.00	0.3937	B″	1.00	0.3937	B″	1.00	0.3937
	B‴	1.375	0.5413	B‴	1.375	0.5413	B‴	1.00	0.3937	B‴	1.00	0.3937	B‴	1.25	0.4921	B‴	1.375	0.5413
Lowest	.....	1.25	0.4921	.....	1.00	0.3937	.....	0.75	0.2953	.....	1.00	0.3937	.....	1.00	0.3937	.....	1.00	0.3937
Average measurements..	B′	1.657	0.6523	B′	1.95	0.7677	B′	2.12	0.8346	B′	1.574	0.6196	B′	1.627	0.6405	B′	2.105	0.8207
	B″	1.91	0.7519	B″	2.03	0.7992	B″	1.705	0.6712	B″	1.665	0.6555	B″	1.712	0.6740	B″	1.99	0.7834
	B‴	1.802	0.7094	B‴	2.007	0.7901	B‴	1.72	0.6771	B‴	1.77	0.6968	B‴	1.822	0.7173	B‴	1.898	0.7473
Average	.....	1.789	0.7143	.....	1.995	0.7854	.....	1.848	0.7275	.....	1.669	0.6570	.....	1.717	0.6759	.....	1.998	0.7866
Measurements above average..	.....	76		.....	89		.....	69		.....	67		.....	70		.....	94	
Measurements below average..	.....	74		.....	61		.....	81		.....	83		.....	[illegible]		.....	56	

TABLE I.—*Measurements of fineness of wools*—Continued.

WISCONSIN.

RAMS, 2 YEARS OLD.

Catalogue number of samples..	728.			729.			733.			734.			735.			739.		
Number of section	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.
Actual measurement in centimillimeters.	2.125	2.50	2.00	1.625	2.50	2.50	2.00	1.50	2.00	2.00	2.25	2.50	1.50	1.75	2.50	1.875	2.50	2.125
	1.125	2.00	2.25	2.50	2.50	2.25	1.875	2.00	2.50	1.375	1.50	2.50	1.75	2.375	2.50	1.25	1.875	1.875
	2.00	1.50	2.125	1.50	1.875	2.375	2.60	2.50	2.00	1.625	2.25	2.00	2.00	1.875	2.00	2.25	2.00	2.00
	1.75	2.00	1.875	2.125	2.00	1.875	2.50	2.50	2.00	1.25	2.125	2.125	1.875	2.00	2.125	1.625	1.875	2.125
	2.375	2.25	2.375	1.375	3.00	1.25	1.875	3.25	2.00	2.125	3.50	1.875	2.375	1.75	1.875	2.375	3.00	2.375
	2.00	1.875	1.625	2.50	2.00	2.00	2.50	2.50	2.00	1.50	2.00	2.50	2.375	2.50	3.00	2.00	2.125	2.50
	2.25	2.00	1.75	3.00	2.125	2.00	1.875	1.25	2.375	1.875	2.00	2.50	2.00	2.00	2.50	2.25	2.375	2.00
	2.50	2.125	1.375	2.125	2.00	2.875	2.125	2.375	2.125	1.25	2.375	2.00	2.125	1.75	2.50	2.00	2.00	1.75
	1.875	2.50	2.00	2.50	2.125	1.875	1.625	2.00	3.00	1.50	1.875	2.00	2.00	1.875	2.50	2.125	2.00	2.00
	1.25	2.25	2.125	2.50	2.125	2.50	1.75	2.00	2.125	1.625	1.50	1.75	2.125	2.125	2.50	1.50	2.50	2.00
	2.00	2.375	2.00	2.00	2.25	2.00	2.25	2.375	2.25	1.50	2.375	1.50	2.50	2.125	2.25	2.50	2.00	2.75
	2.25	3.25	1.125	2.00	2.50	3.25	1.875	2.375	2.375	2.00	2.375	2.125	1.50	2.25	2.125	2.25	2.50	3.00
	2.375	1.50	2.25	1.75	2.50	2.875	1.75	2.00	2.00	2.00	1.875	2.25	2.25	1.75	2.50	2.00	2.125	3.00
	2.25	1.625	2.00	2.00	2.125	2.50	1.625	2.00	1.875	2.00	1.75	3.375	1.625	2.00	2.00	2.00	2.00	2.00
	2.00	1.50	1.875	2.00	2.00	3.50	2.00	2.50	1.875	2.125	2.50	2.50	2.125	2.50	1.875	1.875	2.00	2.50
	2.375	1.50	2.25	2.25	2.50	2.00	1.50	2.50	2.125	2.00	2.00	2.50	2.125	2.50	2.25	2.125	2.50	2.00
	2.50	2.50	1.50	2.50	2.125	2.50	1.75	1.50	1.875	2.00	2.25	2.00	2.50	2.50	2.25	1.875	1.50	2.375
	2.00	2.375	1.375	3.50	3.00	2.00	2.00	2.00	2.875	2.125	1.625	1.625	1.625	3.00	2.375	2.375	2.00	2.00
	2.00	1.75	2.25	2.50	2.50	2.25	1.625	2.50	2.00	2.00	2.00	1.75	2.50	1.625	2.50	2.00	2.25	2.125
	1.75	1.75	2.00	2.00	2.375	1.625	1.875	2.50	2.50	1.375	1.875	2.25	2.00	1.875	2.50	2.50	2.375	2.875
	3.00	2.00	2.75	2.25	2.125	2.375	2.00	2.00	2.00	1.625	3.00	2.125	1.875	2.50	2.25	2.00	3.50	3.00
	2.125	2.00	2.25	2.125	3.25	2.50	2.00	2.00	2.00	1.875	2.50	2.375	2.75	1.50	3.00	1.625	2.00	2.25
	2.125	3.00	1.875	2.00	2.00	3.00	2.00	2.00	2.00	1.50	2.25	2.00	2.00	1.875	2.00	2.00	2.00	2.00
	2.00	1.50	2.00	2.75	2.25	1.875	2.125	2.50	2.00	2.00	2.00	2.00	2.00	2.00	2.50	1.50	3.75	2.50
	2.50	2.50	1.75	2.00	2.125	2.50	2.50	2.125	1.875	1.375	2.00	2.00	2.25	1.875	1.50	2.00	2.50	2.50
	2.25	1.75	1.625	3.00	2.625	2.50	2.00	2.00	2.375	1.25	2.00	2.625	2.00	1.875	2.00	2.50	1.375	3.00
	2.125	1.625	2.00	2.25	2.75	1.75	2.50	2.00	2.125	1.50	2.50	3.00	2.25	2.00	2.50	2.00	2.00	2.50
	2.50	3.00	1.75	3.25	2.25	3.00	2.00	2.50	1.875	2.00	1.75	1.875	2.00	1.50	2.375	2.50	2.125	2.00
	1.625	3.25	2.125	2.375	2.625	2.50	1.875	2.125	2.00	2.50	2.00	2.625	1.875	2.375	2.50	2.00	2.375	2.50
	1.50	2.50	2.25	1.875	3.50	1.00	3.00	1.875	2.375	1.875	2.50	3.00	2.00	2.00	2.50	2.00	1.00	2.125
	2.875	2.00	2.375	2.375	2.25	2.125	2.00	2.00	2.00	1.375	1.75	2.375	2.00	2.00	2.00	1.875	1.50	3.00
	2.00	2.00	2.50	1.75	2.00	2.00	2.125	1.875	2.125	1.875	2.375	1.50	1.50	2.75	3.00	2.125	2.00	2.25
	1.75	1.75	2.25	2.125	2.00	3.00	2.375	1.875	2.50	1.625	2.00	1.875	2.00	2.375	2.25	1.625	2.50	1.875
	2.25	2.125	2.00	2.00	2.625	2.50	2.00	2.50	2.25	1.50	2.25	1.875	2.625	2.875	2.625	1.75	2.375	1.625
	2.00	1.75	2.00	2.00	2.375	3.00	1.75	2.50	2.00	1.50	2.375	2.375	2.00	2.00	1.875	2.50	2.00	2.00
	1.50	1.625	1.25	2.00	2.50	3.25	2.00	2.00	2.50	1.375	1.625	2.00	1.75	2.375	2.25	1.875	2.625	2.50
	3.125	1.50	2.00	2.125	2.125	2.875	1.75	2.375	2.00	1.875	2.00	2.00	2.00	1.50	2.25	1.50	2.00	1.875
	2.875	1.625	2.50	2.25	3.00	2.375	2.00	1.875	2.00	1.75	1.875	2.50	2.50	2.00	2.00	1.50	2.50	3.125
	1.75	2.00	2.00	2.00	2.375	2.50	2.375	2.00	1.75	1.50	2.50	2.125	1.75	2.375	3.00	2.00	3.00	2.50
	1.625	2.50	2.125	1.75	1.625	3.00	1.875	2.375	2.50	1.50	2.375	2.00	2.125	2.625	2.50	1.625	1.875	3.00
	2.125	2.00	2.25	1.625	1.875	4.125	2.00	2.00	2.00	1.50	2.875	2.00	1.75	2.00	2.50	2.50	2.50	1.75
	2.50	2.25	1.875	2.00	4.00	3.25	1.875	2.75	2.125	1.50	2.375	2.375	1.875	2.50	2.50	1.625	1.875	2.50
	3.00	2.125	2.375	1.625	3.00	3.125	1.875	2.00	2.375	1.50	2.125	2.00	1.75	2.00	2.50	2.375	1.50	2.50
	2.25	2.375	2.50	2.25	2.50	2.375	2.125	1.75	2.00	1.50	2.00	2.00	1.50	2.25	2.00	2.00	2.00	4.00
	2.125	1.50	2.125	1.875	2.375	2.75	2.00	1.50	2.125	1.375	2.00	2.50	2.00	2.00	2.50	1.75	2.875	2.00
	2.75	2.50	2.125	2.125	3.50	2.375	1.75	2.50	2.50	1.75	2.375	2.375	2.00	1.50	2.25	1.875	2.125	2.50
	2.50	2.00	2.50	1.625	2.50	2.875	1.375	2.125	1.875	1.375	2.125	2.375	1.875	2.00	2.875	2.00	2.50	1.875
	2.00	2.50	2.125	2.50	3.125	4.00	2.125	2.00	2.00	1.25	2.375	3.00	1.875	2.50	2.625	2.00	1.875	2.125
	3.00	2.25	2.50	2.375	2.125	4.125	2.125	2.00	2.125	1.75	2.00	2.375	1.75	1.875	2.00	2.125	2.50	1.50
	2.00	3.00	3.00	2.00	2.00	2.375	2.60	1.625	3.00	1.75	2.00	1.625	1.875	2.00	2.00	2.00	2.375	2.875
Totals	107.00	104.625	102.875	108.50	121.00	131.75	100.375	106.625	106.75	93.875	107.875	105.50	100.875	105.125	114.00	100.50	109.025	116.125

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B'	3.125	1.2303	B'	3.50	1.3779	B'	3.00	1.1811	B'	2.50	0.9842	B'	2.75	1.0826	B'	2.50	0.9842
	B''	3.00	1.1811	B''	4.00	1.5748	B''	3.25	1.2795	B''	3.50	1.3779	B''	3.00	1.1811	B''	3.75	1.4763
	B'''	3.00	1.1811	B'''	5.00	1.9685	B'''	2.875	1.1318	B'''	3.00	1.1811	B'''	3.00	1.1811	B'''	4.00	1.5748
Highest	.....	3.125	1.2303	.....	5.00	1.9685	.....	3.25	1.2795	.....	3.50	1.3779	.....	3.00	1.1811	.....	4.00	1.5748
Minimum measurements.	B'	1.25	0.4921	B'	1.375	0.5413	B'	1.375	0.5413	B'	1.25	0.4921	B'	1.50	0.5905	B'	1.25	0.4921
	B''	1.50	0.5905	B''	1.625	0.6397	B''	1.25	0.4921	B''	1.50	0.5905	B''	1.50	0.5905	B''	1.00	0.3937
	B'''	1.125	0.4429	B'''	1.00	0.3937	B'''	1.75	0.6889	B'''	1.50	0.5905	B'''	1.50	0.5905	B'''	1.50	0.5905
Lowest	.....	1.125	0.4429	.....	1.00	0.3937	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.50	0.5905	.....	1.00	0.3937
Average measurements..	B'	2.14	0.8425	B'	2.17	0.8543	B'	2.008	0.7905	B'	1.678	0.6606	B'	2.018	0.7944	B'	2.025	0.7972
	B''	2.492	0.8256	B''	2.42	0.9527	B''	1.325	0.5216	B''	2.158	0.8496	B''	2.103	0.8279	B''	2.198	0.8633
	B'''	2.657	0.8098	B'''	2.635	1.0373	B'''	2.135	0.8405	B'''	2.19	0.8622	B'''	2.28	0.8976	B'''	2.323	0.9145
Average	.....	2.097	0.8255	.....	2.408	0.9480	.....	2.092	0.8236	.....	2.008	0.7902	.....	2.133	0.8397	.....	2.17	0.8543
Measurements above average..	.....	74		.....	64		.....	59		.....	55		.....	63		.....	58	
Measurements below average..	.....	78		.....	86		.....	91		.....	95		.....	87		.....	92	

TABLE I.—*Measurements of fineness of wools*—Continued.

	WISCONSIN.																	
	RAMS, 2 YEARS OLD.																	
Catalogue number of samples..	752.			753.			754.			755.			756.			757.		
Number of section.....	B′.	B″.	B.‴	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	3.50	2.00	1.50	3.50	2.00	2.00	2.25	1.75	2.25	2.75	1.50	2.00	1.625	2.00	2.00	1.50	2.25	2.00
	2.00	1.75	2.00	2.25	3.50	1.50	2.375	2.375	2.00	2.00	1.75	2.50	1.875	1.50	1.75	1.50	3.00	1.75
	2.00	1.875	1.75	1.50	3.25	2.00	1.875	2.25	2.50	2.00	2.00	2.00	1.75	1.75	2.00	2.75	1.875	2.25
	2.375	2.00	1.875	3.375	2.25	2.50	1.75	1.50	2.50	1.875	2.50	2.25	1.875	2.00	2.125	1.75	2.50	2.00
	2.00	1.50	2.00	2.00	2.25	2.00	2.125	1.75	2.25	2.625	2.50	2.00	2.00	2.50	1.875	1.75	1.875	2.00
	1.875	1.50	1.875	2.50	2.50	2.00	1.875	2.00	2.25	2.625	1.50	2.00	1.75	2.50	2.125	1.50	2.00	1.875
	2.00	2.00	2.00	2.25	2.00	1.50	1.75	1.75	2.50	2.00	1.50	1.625	1.875	2.375	1.75	2.00	2.00	2.00
	2.125	1.75	2.00	2.00	2.50	1.875	2.00	1.875	2.25	2.50	1.625	2.50	2.50	2.875	1.25	2.00	1.625	2.50
	2.25	2.625	1.875	2.00	3.00	2.00	2.25	2.25	2.50	2.125	1.75	2.375	2.125	2.00	2.25	1.625	1.875	2.125
	2.00	2.25	1.75	2.375	1.75	2.375	2.125	1.75	2.75	2.125	1.50	2.125	2.00	2.125	2.125	1.50	2.125	2.00
	1.75	2.125	1.50	2.875	2.00	1.50	3.125	2.375	2.125	2.125	1.75	2.00	2.125	2.25	1.875	1.50	2.00	2.375
	2.50	2.375	1.25	3.75	2.50	2.00	1.75	1.625	2.00	2.00	1.875	2.125	2.00	1.75	2.25	2.00	2.00	1.75
	2.00	2.00	2.00	3.25	2.75	1.625	1.50	2.00	2.50	2.00	1.50	2.00	2.00	1.875	2.00	2.00	1.75	2.125
	2.75	2.00	2.125	1.625	3.00	1.625	1.875	2.00	2.00	2.25	1.50	1.875	3.00	2.125	1.625	1.875	1.75	2.375
	2.125	1.75	2.50	2.50	2.875	1.50	2.00	2.125	2.875	2.00	2.25	2.375	1.50	2.25	2.00	1.75	2.50	3.00
	1.75	1.875	2.75	2.00	3.00	1.375	1.50	1.50	2.375	2.00	2.375	2.375	2.50	2.00	1.875	1.875	2.50	2.125
	2.00	2.00	2.25	3.00	2.625	1.50	1.75	1.875	2.625	1.875	1.75	2.50	2.125	1.875	1.875	2.375	2.00	1.875
	2.50	2.875	1.75	3.00	3.25	1.50	2.00	1.375	2.50	2.125	2.50	2.50	2.00	2.00	2.00	1.875	1.75	2.25
	3.00	2.00	2.25	3.125	3.25	1.75	1.875	2.00	2.375	2.625	1.75	2.00	2.00	2.125	2.375	1.50	2.00	2.50
	2.25	2.00	2.50	3.50	2.50	2.00	1.525	1.50	2.00	1.625	1.50	2.25	2.00	2.00	2.00	2.25	2.25	1.625
	1.875	2.125	1.50	3.50	3.00	1.25	1.50	2.00	2.50	2.00	1.375	2.25	2.00	1.75	2.125	2.25	2.00	2.125
	2.00	1.875	2.125	2.00	2.75	1.50	1.875	2.125	3.00	1.75	2.00	2.50	1.50	1.875	1.875	1.875	2.00	1.875
	2.125	2.375	1.75	2.25	1.50	1.75	1.875	1.50	3.00	2.00	2.25	2.75	1.875	2.50	2.00	2.00	2.125	2.125
	2.50	2.25	1.625	2.00	1.125	1.875	2.125	2.50	2.375	2.625	1.75	2.50	2.00	2.00	2.00	2.00	2.00	3.00
	2.50	2.00	1.375	2.125	2.00	2.00	2.00	2.25	2.125	2.00	1.50	2.75	2.00	1.75	1.875	2.00	2.00	2.75
	2.50	2.25	1.50	2.25	2.50	2.25	1.75	2.00	2.625	2.50	2.25	1.75	2.50	1.75	1.75	2.00	2.25	2.00
	2.375	1.875	2.50	2.125	2.75	1.50	1.875	1.75	2.625	1.875	2.00	1.50	2.00	1.875	1.625	2.00	1.50	1.875
	2.00	2.00	2.625	2.25	2.875	1.50	1.75	1.875	2.125	2.50	2.00	1.75	1.75	2.25	1.625	1.75	2.00	1.625
	2.25	2.75	1.875	2.25	2.00	1.75	2.00	2.125	2.50	2.00	1.50	1.50	1.875	1.375	2.00	1.875	1.625	2.375
	2.125	1.875	2.25	2.00	1.50	2.00	1.50	2.25	2.00	2.50	1.375	2.00	2.50	1.25	2.125	1.875	2.25	2.00
	1.875	3.00	2.00	2.00	1.75	1.75	2.25	1.50	3.00	1.75	1.625	1.875	1.875	1.25	2.125	2.00	2.75	1.75
	2.00	2.00	2.00	2.25	1.75	1.50	2.125	1.75	2.50	1.625	1.50	1.625	2.125	1.50	2.00	2.125	2.00	2.00
	2.25	2.00	1.75	2.00	2.00	1.625	1.75	2.25	1.875	1.25	2.25	1.75	2.25	1.625	2.00	1.75	1.50*	2.50
	2.75	2.25	1.875	2.50	2.75	1.375	1.25	2.875	2.125	2.00	2.00	2.25	2.25	1.875	2.125	2.00	2.00	2.00
	1.75	2.125	1.75	2.50	1.875	1.00	1.125	2.375	1.875	2.00	2.00	2.00	2.125	2.00	2.375	1.75	2.25	2.125
	3.00	2.25	2.00	2.00	1.75	2.00	1.50	2.00	2.00	2.375	2.375	1.50	2.50	2.00	2.375	2.375	1.875	2.00
	2.50	1.75	2.125	3.375	3.00	1.50	2.00	2.00	1.50	2.00	2.25	1.875	1.50	1.50	2.50	1.625	2.00	1.50
	1.75	1.875	1.50	3.00	3.00	1.25	2.50	1.875	2.00	1.50	3.25	2.25	2.125	1.625	2.125	1.375	2.50	2.125
	2.00	3.00	2.50	2.75	1.75	1.00	2.25	1.75	2.50	2.375	2.00	2.00	2.125	2.00	2.50	1.50	2.00	1.625
	2.00	2.25	2.625	3.00	2.00	1.50	2.625	2.50	1.875	2.00	2.00	2.125	2.375	2.125	2.25	2.00	2.125	2.00
	1.875	2.50	1.50	2.50	2.75	1.00	1.50	1.625	2.125	2.00	1.875	2.00	1.75	1.25	2.00	2.00	1.875	2.50
	2.125	1.75	1.625	2.75	3.00	1.50	1.625	2.00	3.00	1.50	2.25	2.00	1.50	3.00	2.00	2.00	2.375	1.75
	1.75	2.25	1.75	2.50	2.50	1.75	1.75	1.875	2.00	1.625	1.375	2.25	1.50	2.75	2.375	2.00	2.125	2.125
	2.00	2.00	2.00	2.50	2.00	1.875	1.50	1.75	2.125	1.75	1.50	1.875	1.75	2.00	2.375	1.75	2.00	2.25
	1.75	3.00	1.875	2.50	2.50	1.625	2.00	2.25	2.00	1.50	2.00	2.50	1.875	2.25	2.50	1.50	2.25	1.875
	1.875	2.25	2.125	2.75	2.125	1.875	1.875	1.625	1.875	2.00	2.00	2.00	1.625	1.50	2.00	1.50	2.00	2.50
	2.50	2.50	2.25	2.50	2.625	1.75	2.00	2.00	2.00	2.375	2.25	2.00	2.00	1.625	2.25	1.75	2.50	1.875
	2.25	3.00	1.75	2.50	2.25	2.00	2.125	2.00	1.875	2.50	2.375	1.875	2.50	1.75	1.875	2.50	2.375	2.25
	2.375	2.875	1.875	2.00	2.50	1.50	2.25	1.75	2.00	2.00	1.75	1.75	2.00	1.75	1.75	1.875	1.875	2.125
	2.00	2.50	2.00	2.00	2.50	1.50	2.875	1.50	2.375	2.00	2.00	2.00	2.25	1.50	2.125	1.75	2.00	1.875
Totals.....	109.375	118.75	107.50	122.00	121.125	84.375	96.50	96.25	114.625	103.125	95.50	104.125	103.625	96.00	101.75	93.625	102.75	105.00

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reductions:																		
Maximum measurements.	B′	3.50	1.3779	B′	3.50	1.3779	B′	3.125	1.2303	B′	2.75	1.4763	B′	3.00	1.1811	B′	2.75	1.0826
	B″	3.00	1.1811	B″	3.50	1.3779	B″	2.875	1.1318	B″	3.25	1.2795	B″	3.00	1.1811	B″	3.00	1.1811
	B‴	2.75	1.0826	B‴	2.50	0.9842	B‴	3.375	1.3287	B‴	2.75	1.0826	B‴	2.50	0.9842	B‴	3.00	1.1811
Highest.....	.....	3.50	1.3779	.....	3.50	1.3779	.....	3.375	1.3287	.....	3.25	1.2795	.....	3.00	1.1811	.....	3.00	1.1811
Minimum measurements.	B′	1.75	0.6889	B′	1.50	0.5905	B′	1.125	0.4429	B′	1.25	0.4921	B′	1.50	0.5905	B′	1.375	0.5413
	B″	1.50	0.5905	B″	1.125	0.4429	B″	1.375	0.5413	B″	1.375	0.5413	B″	1.25	0.4921	B″	1.50	0.5905
	B‴	1.25	0.4921	B‴	1.00	0.3937	B‴	1.50	0.5905	B‴	1.50	0.5905	B‴	1.25	0.4921	B‴	1.50	0.5905
Lowest	.....	1.25	0.4921	.....	1.00	0.3937	.....	1.125	0.4429	.....	1.25	0.5905	.....	1.25	0.4921	.....	1.375	0.5413
Average measurements..	B′	2.188	0.8614	B′	2.44	0.9606	B′	1.930	0.7598	B′	2.063	0.8122	B′	2.073	0.8161	B′	1.873	0.7374
	B″	2.375	0.9350	B″	2.423	0.9539	B″	1.925	0.7578	B″	1.91	0.7519	B″	1.92	0.7559	B″	2.055	0.8090
	B‴	2.15	0.8464	B‴	1.688	0.6645	B‴	2.293	0.9027	B‴	2.083	0.8200	B‴	2.035	0.8011	B‴	2.10	0.8267
Average	.....	2.23	0.8779	.....	2.184	0.8598	.....	2.049	0.8066	.....	2.019	0.7948	.....	2.009	0.7909	.....	2.009	0.7909
Measurements above average..	.....	52		.....	60		.....	53		.....	53		.....	54		.....	50	
Measurements below average..	.....	98		.....	81		.....	87		.....	97		.....	[illegible]		.....	100	

TABLE I.—*Measurements of fineness of wools*—Continued.

	WISCONSIN.																	
	RAMS, 2 YEARS OLD.												RAMS, 3 YEARS OLD.					
Catalogue number of samples..	758.			759.			760.			761.			725.			737.		
Number of section	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.
Actual measurement in centimillimeters.	illegible	2.50	1.875	1.875	4.25	2.50	1.50	1.625	2.00	2.125	illegible	1.75	1.625	illegible	2.00	1.50	1.75	1.875
	illegible	illegible	illegible	illegible	2.50	illegible	1.75	illegible	illegible	2.50	1.875	1.50	1.50	1.75	2.125	2.00	1.875	1.75
	2.25	1.375	illegible	1.875	2.25	1.875	2.25	illegible	1.50	2.00	illegible	1.50	1.75	1.75	2.25	illegible	1.75	2.25
	illegible	1.50	2.00	illegible	2.375	2.00	illegible	2.25	1.50	1.75	1.875	1.625	1.875	2.375	2.375	1.75	1.75	illegible
	2.375	2.00	1.75	illegible	1.50	2.25	1.625	1.625	1.875	1.625	1.75	1.625	1.50	2.00	1.875	1.875	1.875	1.50
	2.25	2.00	2.125	illegible	1.625	illegible	illegible	1.875	1.50	2.00	1.625	1.50	1.375	2.75	1.625	illegible	2.50	2.125
	2.875	2.00	1.75	1.75	2.00	2.50	2.25	illegible	illegible	1.50	2.375	2.00	1.50	illegible	1.50	1.50	1.75	illegible
	1.625	illegible	1.75	1.75	2.125	illegible	2.00	2.00	illegible	2.125	2.125	2.125	1.75	1.50	2.25	illegible	2.125	illegible
	1.875	1.875	1.875	2.375	2.50	2.25	illegible	2.25	illegible	2.00	2.00	1.75	2.75	illegible	2.125	1.375	illegible	2.00
	1.625	illegible	1.50	illegible	2.00	1.50	2.50	1.50	illegible	illegible	2.00	illegible	1.50	2.00	2.50	illegible	1.875	illegible
	2.50	2.00	2.00	illegible	2.25	illegible	2.00	2.875	1.75	2.00	2.25	illegible	1.625	2.375	1.75	1.625	2.50	1.125
	1.875	2.50	illegible	1.875	2.125	2.50	illegible	3.00	1.50	illegible	2.50	illegible	1.50	1.50	1.875	1.375	2.25	1.875
	1.625	illegible	2.00	2.00	illegible	illegible	2.125	2.50	illegible	2.25	illegible	illegible	2.625	1.75	2.00	1.75	2.75	1.75
	2.125	illegible	1.875	illegible	1.75	illegible	1.00	illegible	2.125	2.375	1.625	1.875	illegible	2.00	illegible	1.75	illegible	1.50
	1.50	illegible	1.75	illegible	2.375	illegible	2.125	2.75	1.375	1.875	1.50	2.375	2.125	1.50	1.875	1.625	2.125	illegible
	illegible	1.625	illegible	illegible	illegible	1.875	2.25	1.375	1.75	1.625	2.125	1.50	1.75	2.125	1.75	2.25	1.875	illegible
	illegible	1.875	2.125	2.00	2.25	2.50	illegible	1.75	2.00	illegible	2.00	2.375	1.875	1.50	2.125	illegible	1.625	1.75
	2.125	1.875	2.00	1.25	2.75	illegible	1.75	1.375	2.00	1.375	2.00	illegible	illegible	1.50	1.75	2.00	1.625	1.75
	2.00	1.875	illegible	illegible	illegible	illegible	illegible	illegible	illegible	illegible	2.25	1.50	illegible	2.00	1.75	illegible	2.25	1.875
	2.375	1.875	2.25	2.625	2.50	1.875	2.25	1.50	illegible	1.625	2.00	2.25	2.25	illegible	2.25	2.50	2.50	1.75
	illegible	2.50	illegible	illegible	2.00	illegible	illegible	2.50	illegible	illegible	2.50	illegible	illegible	2.25	2.125	1.50	1.625	illegible
	2.00	2.00	illegible	1.50	2.00	2.375	2.375	2.75	2.00	illegible	illegible	illegible	1.50	2.25	1.50	1.75	2.00	1.25
	2.125	2.00	illegible	2.00	2.25	2.50	2.00	2.00	2.125	illegible	1.625	illegible	1.625	2.00	1.50	1.125	2.00	illegible
	illegible	2.00	1.75	1.50	1.50	2.25	1.75	1.375	1.875	illegible	illegible	illegible	1.875	2.75	1.50	1.50	1.875	1.875
	illegible	2.00	2.00	2.25	2.00	2.375	1.875	1.75	illegible	2.375	2.50	1.75	illegible	1.25	2.125	2.00	1.75	1.625
	2.00	2.50	1.875	illegible	2.125	2.50	illegible	1.50	2.25	illegible	2.00	2.125	1.75	2.00	illegible	1.75	1.50	1.50
	2.375	2.00	1.75	illegible	illegible	2.25	1.875	1.625	2.125	2.00	1.75	1.50	illegible	1.50	2.25	1.50	1.75	2.75
	2.50	illegible	1.75	illegible	2.25	illegible	2.125	2.25	2.00	illegible	1.75	2.75	2.25	2.125	1.875	1.50	2.125	illegible
	2.00	2.00	illegible	2.875	illegible	1.75	illegible	1.50	1.75	1.875	illegible	2.25	2.00	1.75	1.75	2.50	2.125	1.50
	illegible	2.00	2.125	1.875	1.375	1.75	1.625	2.375	1.875	2.50	2.50	illegible	1.50	illegible	1.875	2.00	2.00	2.125
	1.875	2.25	2.125	2.375	3.00	1.75	1.375	2.00	2.00	2.00	2.50	2.50	1.50	1.75	illegible	1.25	1.75	1.50
	1.625	1.50	2.50	1.50	illegible	1.625	1.50	1.75	illegible	1.875	2.375	1.625	illegible	1.50	2.375	1.125	1.75	1.75
	1.75	1.50	2.25	illegible	2.375	2.25	2.125	1.875	2.50	illegible	1.625	1.75	1.875	2.00	2.00	1.50	1.875	1.50
	2.625	1.50	2.75	illegible	1.50	illegible	1.50	illegible	1.75	1.625	illegible	1.375	2.25	1.50	1.75	illegible	2.25	illegible
	1.875	1.75	2.25	2.125	3.00	illegible	1.75	2.00	2.00	2.75	illegible	illegible	illegible	illegible	1.50	1.375	2.125	1.375
	1.625	2.125	1.50	2.25	2.50	1.75	illegible	2.00	2.50	2.25	2.625	2.375	2.125	2.125	1.875	1.125	illegible	2.125
	illegible	2.125	1.75	2.50	2.625	1.875	2.00	2.25	1.50	2.50	2.50	2.00	illegible	1.875	1.75	2.25	1.50	1.875
	illegible	2.00	1.625	illegible	2.375	1.625	1.50	illegible	1.75	1.625	illegible	illegible	1.75	2.00	1.75	1.50	illegible	2.00
	2.375	illegible	illegible	1.75	illegible	2.00	2.125	1.50	1.625	2.375	illegible	illegible	1.375	illegible	1.875	2.125	3.00	2.25
	2.25	3.50	1.75	1.875	1.75	2.875	2.25	illegible	1.75	2.125	1.875	1.75	illegible	1.75	1.625	2.25	2.50	2.25
	illegible	2.125	illegible	illegible	2.125	illegible	1.875	2.125	1.50	2.25	illegible	1.875	2.125	1.875	illegible	1.50	2.00	illegible
	illegible	2.00	1.50	3.00	illegible	illegible	1.75	2.00	1.50	2.50	1.50	1.50	1.75	illegible	illegible	2.875	1.75	1.50
	1.75	1.75	1.50	illegible	2.50	1.75	1.50	1.50	illegible	illegible	1.875	2.00	1.50	illegible	2.25	1.125	2.00	illegible
	2.50	illegible	1.25	2.375	2.25	1.875	1.50	1.75	illegible	1.875	2.125	2.25	2.25	2.25	2.25	1.50	3.00	illegible
	illegible	illegible	1.375	illegible	1.50	illegible	1.875	1.875	illegible	1.625	illegible	2.50	2.25	2.00	2.50	illegible	2.00	1.50
	illegible	1.625	illegible	1.875	1.75	2.25	1.75	illegible	2.75	2.00	2.375	illegible	illegible	illegible	2.375	1.75	1.75	illegible
	illegible	1.60	illegible	3.00	1.875	2.25	1.875	illegible	illegible	illegible	2.125	2.375	1.75	illegible	1.75	illegible	1.875	1.50
	illegible	illegible	1.75	illegible	illegible	illegible	1.50	illegible	illegible	illegible	illegible	1.50	1.50	illegible	1.625	illegible	illegible	2.00
Totals	105.50	100.75	92.50	104.125	illegible	105.375	84.25	101.50	illegible	100.75	106.75	101.875	94.50	97.625	98.50	92.50	illegible	illegible
	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reductions:																		
Maximum measurements.	B'	illegible	1.1318	B'	illegible	1.1812	B'	illegible	0.9842	B'	2.75	1.0826	B'	2.75	1.0826	B'	3.625	1.4271
	B''	3.50	1.3779	B''	4.25	1.6732	B''	3.375	1.3287	B''	3.50	1.3779	B''	2.75	1.0826	B''	3.00	illegible
	B'''	illegible	illegible	B'''	2.50	0.9842	B'''	2.75	illegible	B'''	3.00	1.1811	B'''	2.50	0.9842	B'''	2.75	1.0826
Highest		3.50	1.3779		4.25	1.6732		3.375	1.3287		3.50	1.3779		2.75	1.0826		3.625	1.4271
Minimum measurements.	B'	1.625	0.6397	B'	1.25	0.4921	B'	1.375	0.5413	B'	1.375	0.5413	B'	1.375	0.5413	B'	1.125	0.4429
	B''	1.375	0.5413	B''	1.375	0.5413	B''	1.375	0.5413	B''	1.50	0.5905	B''	1.50	0.5905	B''	1.50	0.5905
	B'''	1.25	0.4921	B'''	illegible	0.5905	B'''	1.375	0.5413	B'''	1.375	0.5413	B'''	1.50	0.5905	B'''	1.25	0.4921
Lowest		1.25	0.4921		1.25	0.4921		1.375	0.5413		1.375	0.5413		1.375	0.5413		1.125	0.4429
Average measurements..	B'	2.11	illegible	B'	illegible	0.8268	B'	1.885	0.7421	B'	2.015	0.7933	B'	1.990	0.7440	B'	1.850	0.7283
	B''	2.015	illegible	B''	2.108	0.8053	B''	2.03	0.7992	B''	2.135	0.8405	B''	illegible	0.7638	B''	2.018	0.7944
	B'''	1.85	0.7283	B'''	2.108	0.8299	B'''	1.928	0.7599	B'''	2.038	0.8023	B'''	1.970	0.7755	B'''	1.798	illegible
Average		illegible	0.7834		2.129	0.8381		illegible	0.7637		2.062	0.8118		illegible	0.7629		illegible	illegible
Measurements above average..		illegible			illegible			87			62			81			68	
Measurements below average..		57			82			63			88			69			82	

TABLE I.—*Measurements of fineness of wools*—Continued.

	WISCONSIN.																	
	RAMS, 3 YEARS OLD.									RAMS, 4 YEARS OLD.						EWES, 1 YEAR OLD.		
Catalogue number of samples..	730.			732.			740.			726.			731.			741.		
Number of crimps per inch	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″	B‴.
Actual measurement in centimillimeters.	1.375	1.125	1.50	1.875	2.125	2.25	1.375	2.00	2.00	2.50	2.25	3.50	2.00	2.00	2.25	2.00	2.00	2.00
	1.625	1.75	1.25	1.75	2.00	2.125	2.50	2.00	2.25	2.50	2.625	2.50	1.75	2.00	2.50	1.625	2.25	2.125
	2.125	1.50	1.875	1.625	1.75	2.00	1.00	1.375	2.25	1.75	2.25	3.00	2.125	1.75	2.25	2.50	1.50	1.25
	1.25	1.375	1.25	1.50	1.50	2.25	1.375	1.25	2.00	2.50	2.50	3.25	1.875	1.50	1.50	2.00	1.625	1.50
	1.125	1.125	1.50	1.25	1.375	1.25	2.00	1.50	2.125	3.00	2.375	2.875	2.50	2.25	1.625	4.00	1.875	1.625
	1.25	1.50	1.50	1.375	2.25	1.375	1.875	2.375	2.00	2.875	2.00	2.75	2.75	2.25	2.00	2.125	2.00	1.75
	2.00	1.375	2.00	1.75	2.375	2.125	1.75	2.25	2.00	2.375	1.875	2.50	2.00	1.875	2.25	1.75	2.50	2.125
	1.00	1.00	1.375	1.25	1.50	1.75	2.50	1.75	1.75	2.125	3.00	2.875	1.875	1.375	2.375	2.50	2.50	2.75
	1.375	1.625	1.375	2.00	1.25	1.875	1.50	2.00	1.875	2.00	2.50	2.75	2.00	1.50	2.50	2.50	2.125	2.00
	1.50	1.25	2.00	2.125	1.50	2.00	1.125	2.00	1.75	2.50	1.50	2.25	1.625	2.00	2.625	2.125	2.00	1.875
	1.25	1.25	1.50	1.375	1.625	2.00	1.00	1.875	2.00	1.50	1.875	2.375	1.75	2.125	2.75	2.00	1.875	1.625
	1.125	1.375	1.75	1.25	1.75	1.50	2.00	1.50	2.125	2.75	2.25	2.75	1.625	2.125	2.50	2.50	1.75	2.123
	1.25	1.125	1.50	1.375	2.25	1.875	1.50	1.75	1.75	2.00	2.25	2.00	1.75	1.50	1.75	2.25	1.75	1.125
	1.50	1.375	1.375	1.50	2.00	1.50	1.50	1.375	1.875	1.625	1.25	2.00	2.00	2.00	1.875	2.50	2.00	2.00
	1.875	1.50	1.50	1.50	1.375	1.75	1.375	2.125	1.50	2.125	1.875	2.75	1.75	1.50	1.625	2.00	2.00	1.875
	1.25	1.50	1.75	1.25	1.25	1.875	1.50	2.00	1.50	2.50	3.00	2.25	1.75	1.375	1.75	2.25	1.50	1.25
	1.00	1.50	1.875	1.875	1.50	1.50	1.125	2.25	2.25	2.00	2.25	2.00	2.50	1.50	1.00	2.50	1.75	1.50
	1.375	1.625	1.50	1.75	1.50	1.50	2.00	2.50	2.00	2.50	2.50	2.625	2.25	1.375	1.875	3.00	1.875	2.00
	1.625	1.25	1.50	2.00	1.25	1.75	2.75	2.00	2.125	2.125	2.25	2.875	1.75	2.00	2.00	2.00	2.00	2.00
	1.50	1.625	1.625	1.25	1.25	1.50	2.25	1.75	2.25	2.00	2.375	2.50	1.875	2.00	2.25	1.875	1.875	2.25
	1.875	1.625	2.00	1.375	2.00	1.625	2.00	1.25	2.00	2.50	2.625	2.25	1.50	2.25	2.50	2.00	1.75	2.25
	1.25	1.25	1.75	1.50	1.50	2.00	1.00	1.375	1.875	2.375	2.00	2.25	2.125	2.25	1.875	1.75	2.00	2.125
	1.50	1.375	1.875	1.50	1.625	1.50	1.375	1.25	2.00	2.00	2.00	2.125	1.75	2.00	1.75	1.50	1.875	2.25
	1.125	1.75	1.75	1.625	1.625	2.25	2.25	1.50	1.50	2.00	1.75	2.00	2.25	2.00	1.875	2.00	2.00	2.00
	1.25	1.25	1.375	1.25	2.00	2.375	2.25	1.125	1.50	2.125	1.875	2.625	1.50	1.50	3.00	2.25	1.75	1.75
	1.25	1.25	2.125	2.125	1.375	2.00	1.25	2.00	1.75	2.25	2.125	2.00	1.50	1.625	2.375	2.125	3.00	1.875
	1.875	1.50	1.25	2.00	1.625	1.875	2.50	2.00	2.25	2.125	2.25	1.875	1.75	2.00	2.875	1.375	2.75	1.50
	1.375	1.625	1.625	1.375	1.50	2.00	2.25	1.75	2.00	2.00	2.50	2.25	2.25	1.75	1.75	2.375	2.25	1.50
	1.375	1.50	1.625	1.25	2.00	1.375	2.375	2.625	2.50	2.75	2.25	1.875	2.875	1.50	1.25	1.50	2.00	1.25
	2.00	1.625	1.875	1.125	2.00	2.75	2.25	2.75	2.00	3.00	2.50	2.50	1.50	1.50	2.25	2.25	2.00	1.25
	1.25	1.25	1.875	1.50	1.50	2.00	2.00	2.00	1.875	2.875	2.50	2.875	1.50	2.00	1.50	2.375	1.75	1.50
	1.875	1.75	1.75	1.50	1.625	1.50	2.125	1.75	1.50	3.00	2.75	3.00	2.25	2.125	1.50	2.00	2.00	1.75
	1.25	1.75	2.125	1.375	2.00	2.125	1.125	1.875	1.75	2.25	3.50	2.00	1.50	2.00	2.125	2.25	1.875	2.00
	1.375	1.25	1.75	1.25	2.25	1.375	2.25	2.00	1.375	2.50	2.00	2.125	1.875	1.75	1.25	2.25	1.50	2.00
	1.25	1.375	1.125	1.875	1.25	2.50	1.50	2.50	1.375	2.625	2.125	2.375	2.00	1.25	2.25	1.75	1.25	1.50
	1.50	1.50	2.00	1.25	1.50	1.50	1.375	1.50	1.50	2.25	2.00	2.50	1.50	2.00	2.375	3.00	1.50	2.00
	1.625	1.50	1.50	1.25	1.625	1.375	1.75	1.50	1.625	2.00	2.75	2.625	1.625	2.25	1.25	2.00	1.615	2.00
	1.75	1.125	1.75	1.50	1.50	1.625	1.25	1.375	2.00	2.375	2.50	2.25	2.75	1.50	2.25	1.75	2.00	1.25
	1.625	1.50	1.75	1.375	2.25	2.00	2.00	2.375	2.50	1.875	2.00	3.25	2.00	2.00	2.00	2.75	2.00	1.375
	1.375	1.50	1.50	1.125	2.00	2.125	2.25	2.00	2.00	2.00	2.25	2.25	1.50	1.375	2.00	2.375	2.50	2.00
	1.50	1.625	2.00	1.50	2.375	1.25	1.50	1.75	1.75	2.125	2.125	2.125	1.875	1.375	1.875	2.25	2.125	1.875
	2.00	1.50	1.25	1.625	1.375	1.50	1.50	1.875	1.50	2.00	2.125	2.00	1.25	2.25	1.25	2.25	1.00	1.50
	1.50	1.125	1.375	1.50	1.50	1.625	1.875	1.625	1.625	3.00	3.50	2.25	1.875	1.75	2.125	1.50	2.25	1.75
	1.50	1.75	1.625	1.50	1.375	1.50	2.00	2.375	2.25	2.50	2.625	1.625	1.125	2.125	2.00	2.00	1.50	1.875
	1.75	2.00	1.75	1.50	1.375	2.00	1.25	1.50	1.50	2.00	2.25	1.50	1.625	2.00	1.875	2.00	1.75	1.50
	1.75	1.75	1.50	2.00	1.50	1.375	1.375	2.00	2.25	2.25	2.375	2.00	1.25	1.75	1.75	1.875	2.00	1.375
	1.375	1.375	1.625	1.625	2.00	1.625	2.00	1.75	1.625	2.375	3.00	2.50	1.50	1.50	2.00	1.75	2.00	1.25
	1.50	1.25	1.375	1.375	1.25	2.00	2.875	2.00	2.00	2.00	2.00	1.875	2.25	2.00	2.00	2.00	2.75	1.375
	2.00	1.50	1.75	1.25	1.625	2.25	2.75	2.00	1.50	2.125	2.00	2.00	2.50	1.25	2.125	2.00	1.50	1.50
	1.25	1.125	1.625	1.50	1.50	1.50	2.09	2.125	2.125	2.25	1.75	2.00	2.00	2.25	1.25	2.25	1.75	1.50
Totals	74.25	72.00	81.750	7.6125	84.00	90.25	90.25	93.125	95.375	114.75	114.75	119.25	94.25	90.875	99.50	107.50	107.75	87.375

	RAMS, 3 YEARS OLD.									RAMS, 4 YEARS OLD.						EWES, 1 YEAR OLD.		
	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In thousandths of inch.	In centimillimeters.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements	B′	2.00	0.7874	B′	2.125	0.8366	B′	2.875	1.1318	B′	3.00	1.1811	B′	2.875	1.1318	B′	3.00	1.1811
	B″	2.00	0.7874	B″	2.375	0.9350	B″	2.625	1.0334	B″	3.50	1.3779	B″	2.25	0.8858	B″	3.00	1.1811
	B‴	2.125	0.8366	B‴	2.50	0.9842	B‴	2.50	0.9842	B‴	3.50	1.3779	B‴	3.00	1.1811	B‴	2.75	1.0826
Highest	.....	2.125	0.8366	.....	2.50	0.9842	.....	2.875	1.1318	.....	3.50	1.3779	.....	3.00	1.1811	.....	3.00	1.1811
Minimum measurements.	B′	1.00	0.3937	B′	1.125	0.4429	B′	1.00	0.3937	B′	1.50	0.5905	B′	1.125	0.4429	B′	1.375	0.5413
	B″	1.00	0.3937	B″	1.25	0.4921	B″	1.125	0.4429	B″	1.25	0.4921	B″	1.25	0.4921	B″	1.00	0.3937
	B‴	1.125	0.4429	B‴	1.25	0.4921	B‴	1.375	0.5413	B‴	1.50	0.5905	B‴	1.00	0.3937	B‴	1.125	0.4429
Lowest	.....	1.00	0.3937	.....	1.125	0.4429	.....	1.00	0.3937	.....	1.25	0.4921	.....	1.00	0.3937	.....	1.00	0.3937
Average measurements..	B′	1.485	0.5846	B′	1.523	0.5996	B′	1.805	0.7106	B′	2.295	0.3035	B′	1.885	0.7421	B′	2.15	0.8464
	B″	1.450	0.5708	B″	1.68	0.6614	B″	1.863	0.7334	B″	2.295	0.9035	B″	1.818	0.7157	B″	2.155	0.8484
	B‴	1.635	0.6436	B‴	1.805	0.7106	B‴	1.908	0.7511	B‴	2.385	0.9389	B‴	1.99	0.7834	B‴	1.747	0.6877
Average	.....	1.524	0.5999	.....	1.67	0.6574	.....	1.85	0.7283	.....	2.325	0.9153	.....	1.898	0.7472	.....	2.017	0.7940
Measurements above average..	.....	58		.....	58		.....	84		.....	66		.....	74		.....	44	
Measurements below average..	.....	92		.....	92		.....	66		.....	84		.....	76		.....	106	

TABLE I.—*Measurements of fineness of wools*—Continued.

	WISCONSIN.																	
	EWES, 1 YEAR OLD.						EWES, 2 YEARS OLD.											
Catalogue number of samples	742.			743.			698.			699.			704.			705.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centi millimeters.	2.00	2.50	1.75	2.25	2.00	1.50	2.25	1.75	1.50	1.625	2.75	[illegible]	1.625	2.25	1.50	2.125	1.50	1.50
	2.125	[illegible]	1.50	2.00	2.50	1.875	2.00	1.50	1.375	1.875	2.00	1.875	1.875	2.00	1.375	2.25	2.00	1.50
	2.50	1.625	2.50	2.125	2.00	2.25	1.50	1.625	1.25	1.875	2.00	1.50	1.125	2.375	1.50	1.50	1.50	2.00
	2.00	2.00	2.00	2.25	2.125	2.375	1.375	1.50	2.25	2.00	2.25	1.50	1.625	2.50	1.50	1.75	2.125	1.50
	1.75	2.25	2.125	2.00	2.25	2.50	1.25	1.625	2.125	1.75	[illegible]	[illegible]	1.625	2.50	1.125	1.50	2.00	1.625
	1.625	2.25	2.50	2.00	1.75	1.75	1.875	2.00	1.75	2.25	2.125	2.00	2.00	2.25	2.125	1.375	1.875	1.75
	2.00	2.375	2.75	1.75	1.875	1.75	2.00	1.875	1.25	1.875	1.50	[illegible]	1.875	[illegible]	1.50	1.50	2.125	1.75
	2.25	1.875	1.75	1.875	2.00	1.625	2.125	1.25	2.125	2.125	2.375	1.50	2.00	2.125	[illegible]	2.125	1.875	1.50
	1.75	2.00	1.50	2.50	2.125	1.50	1.875	2.125	2.00	1.875	2.625	1.75	2.375	1.875	1.875	1.50	2.00	2.00
	1.875	2.25	1.625	1.75	2.00	2.50	1.625	2.00	1.125	1.625	2.00	1.875	1.50	2.00	[illegible]	1.25	1.50	1.75
	2.00	1.50	2.125	2.00	2.25	2.75	2.125	1.875	1.75	2.00	2.00	2.25	1.50	2.00	1.625	2.00	1.875	2.125
	1.50	1.75	1.50	2.00	2.00	1.75	1.50	2.00	2.00	2.25	[illegible]	[illegible]	1.625	2.50	1.875	1.50	1.50	1.50
	1.50	2.00	1.75	1.50	2.00	1.75	1.50	2.00	2.25	1.875	2.375	2.125	1.50	1.50	2.00	1.625	2.50	1.625
	1.625	3.00	2.25	1.625	3.00	[illegible]	2.25	1.625	1.25	2.00	2.00	1.75	1.625	2.125	1.50	1.50	1.50	1.75
	1.75	2.00	1.875	2.00	2.25	2.375	2.125	1.375	1.875	2.125	2.25	2.25	2.00	1.50	1.25	1.50	2.625	2.00
	2.125	2.50	1.75	2.25	3.00	2.625	1.375	1.625	2.00	2.375	2.125	2.25	1.375	2.75	1.50	2.375	3.00	2.00
	2.00	2.00	2.00	2.25	2.75	1.25	1.25	2.25	1.375	2.375	1.75	1.75	1.00	1.75	1.75	1.50	1.875	1.50
	1.875	1.625	2.25	1.875	2.125	1.75	2.125	2.00	1.25	1.875	2.00	[illegible]	1.375	1.75	1.375	1.50	3.00	1.50
	1.50	1.75	1.50	2.00	2.25	1.50	2.25	2.00	2.25	1.50	1.875	1.50	1.50	2.00	1.50	1.50	1.75	2.00
	1.75	2.50	1.875	1.50	2.00	2.75	2.00	2.00	[illegible]	1.50	2.125	1.75	1.875	2.50	2.25	1.00	1.50	2.50
	1.625	1.50	1.375	1.875	2.25	2.125	1.50	1.625	1.75	1.375	1.875	[illegible]	2.125	1.625	2.25	1.50	2.25	1.875
	2.00	1.75	[illegible]	2.50	2.50	1.50	1.75	1.75	2.00	1.625	2.00	[illegible]	2.25	1.50	[illegible]	1.50	2.125	1.625
	2.00	1.75	2.00	2.00	2.75	1.75	1.875	2.00	2.00	1.75	3.50	2.25	2.00	1.50	1.50	1.625	1.50	2.00
	2.00	1.875	1.875	2.00	1.75	1.25	2.25	1.875	1.50	1.625	2.25	1.75	2.00	2.50	1.50	2.00	2.00	2.00
	2.375	2.25	1.75	1.50	1.875	1.75	2.125	2.00	1.375	1.625	2.00	1.875	2.00	1.75	1.75	1.50	2.00	2.50
	2.25	1.75	2.00	1.75	1.75	2.00	2.00	2.00	1.125	1.50	2.00	2.25	2.125	2.50	2.25	1.50	1.875	2.00
	2.50	1.625	2.00	2.50	2.00	1.75	1.625	1.875	1.75	1.50	[illegible]	1.75	1.625	2.50	1.75	1.50	2.50	1.625
	2.125	2.00	1.875	2.25	2.125	1.50	1.625	1.875	1.875	1.50	1.50	2.00	1.625	1.50	2.00	2.375	1.875	1.50
	2.25	2.50	1.625	1.50	1.75	[illegible]	1.75	2.00	1.25	1.375	1.50	2.125	2.125	2.50	1.875	2.25	2.25	1.50
	1.75	1.75	1.50	2.25	2.50	1.75	1.50	1.875	1.125	2.00	[illegible]	1.75	2.00	1.625	2.00	2.25	2.00	2.00
	1.875	1.50	2.00	1.75	2.25	1.875	1.75	1.75	1.625	2.25	3.75	1.50	1.375	2.50	2.00	2.00	1.875	1.375
	1.50	[illegible]	1.75	2.00	2.375	1.625	2.125	1.50	1.75	1.625	2.00	2.25	1.50	3.00	2.125	2.25	1.375	1.625
	1.75	2.00	1.875	1.875	3.00	2.50	2.00	1.75	1.50	1.75	2.00	2.50	2.00	2.375	[illegible]	2.125	[illegible]	2.50
	2.00	1.75	1.625	2.25	2.50	2.375	2.50	2.125	1.50	1.50	2.00	2.00	2.25	1.75	2.125	2.375	2.25	1.50
	2.25	1.625	2.125	1.75	2.625	1.625	1.75	1.625	1.50	1.50	1.875	1.875	2.50	1.50	1.875	1.50	2.375	1.50
	2.375	2.00	[illegible]	1.875	2.00	2.50	1.875	1.75	1.75	2.00	2.50	2.00	1.75	2.625	2.25	1.50	1.875	2.00
	1.875	2.125	1.50	1.75	2.25	2.50	1.50	1.75	1.875	1.625	2.25	2.125	1.25	1.625	1.50	2.00	2.25	1.625
	1.50	1.75	2.25	2.625	1.625	2.00	2.00	2.00	1.75	1.375	[illegible]	1.875	1.50	2.375	2.125	2.125	1.875	1.375
	3.00	1.625	2.125	1.50	1.75	1.50	2.125	1.50	2.00	1.50	2.375	2.00	1.50	1.875	1.50	1.50	2.25	1.50
	2.25	1.75	[illegible]	1.25	1.875	1.625	2.00	[illegible]	1.875	1.75	[illegible]	2.125	2.00	2.50	2.25	1.75	2.125	1.50
	2.00	2.125	2.00	1.75	2.00	2.00	2.00	[illegible]	2.25	1.75	2.25	1.75	1.75	2.50	1.625	1.625	2.00	[illegible]
	2.00	3.00	2.125	2.00	2.25	1.50	1.875	[illegible]	2.375	1.875	2.50	2.125	1.875	1.625	1.50	2.00	2.25	2.25
	1.375	2.75	2.25	2.50	2.75	1.50	1.50	1.875	1.50	1.50	2.50	1.025	1.50	[illegible]	1.50	2.00	1.625	1.50
	1.50	1.75	2.125	1.50	1.75	1.25	1.50	2.50	2.00	1.25	[illegible]	[illegible]	1.375	2.00	2.375	2.00	2.00	1.50
	1.25	2.25	1.875	2.375	1.625	1.75	1.75	1.625	1.875	1.375	2.25	2.50	1.50	1.75	[illegible]	2.125	1.50	2.125
	2.375	2.125	2.00	2.25	1.50	1.25	1.625	1.75	1.75	1.625	2.00	2.875	1.25	1.50	2.25	1.375	2.375	2.375
	2.00	2.25	[illegible]	2.00	2.50	1.50	1.75	1.75	1.75	1.75	1.875	2.25	1.50	2.25	1.50	1.50	1.50	2.00
	2.125	2.00	1.50	2.125	2.75	1.375	2.00	2.00	1.50	1.75	1.125	[illegible]	2.00	2.00	1.625	1.75	1.625	2.50
	2.00	2.00	1.625	1.50	3.00	1.50	2.125	1.625	1.50	1.50	[illegible]	[illegible]	1.50	2.50	1.50	1.50	2.00	1.75
	1.375	2.00	1.75	1.625	2.00	2.00	1.875	1.875	1.50	1.625	2.99	2.125	1.625	3.00	1.625	1.625	2.00	1.75
Totals	96.75	101.25	96.625	97.75	109.875	92.75	91.875	92.125	86.625	87.50	[illegible]	[illegible]	86.375	106.50	87.75	87.50	[illegible]	90.25

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	3.00	1.1811	B′	2.625	1.0334	B′	2.50	0.9842	B′	2.375	[illegible]	B′	2.50	0.9842	B′	2.375	0.9350
	B″	[illegible]	1.1811	B″	[illegible]	1.1811	B″	2.50	0.9842	B″	3.75	1.4763	B″	3.00	1.1811	B″	3.00	1.1811
	B‴	2.75	[illegible]	B‴	2.75	1.0826	B‴	2.375	[illegible]	B‴	2.875	1.1318	B‴	2.875	0.9350	B‴	2.50	0.9843
Highest		3.00	1.1811		3.00	1.1811		2.50	0.9842		3.75	1.4763		3.00	1.1811		3.00	1.1811
Minimum measurements.	B′	1.25	0.4921	B′	1.25	0.4921	B′	1.25	0.4921	B′	1.25	0.4921	B′	1.00	0.3937	B′	1.00	0.3937
	B″	[illegible]	0.5905	B″	1.50	0.5905	B″	1.25	0.4921	B″	1.50	0.5905	B″	1.50	0.5905	B″	1.50	0.5905
	B‴	1.375	0.5413	B‴	1.25	0.4921	B‴	1.125	0.4429	B‴	1.50	0.5905	B‴	1.125	0.4429	B‴	1.375	0.5413
Lowest		1.25	0.4921		1.25	0.4921		1.125	0.4429		1.25	0.4921		1.00	0.3937		1.00	0.3937
Average measurements.	B′	1.935	0.7618	B′	[illegible]	0.7626	B′	[illegible]	0.7236	B′	1.75	0.6889	B′	1.728	0.6803	B′	1.75	0.6889
	B″	2.025	0.7972	B″	2.197	0.8649	B″	1.843	0.7255	B″	2.16	0.8503	B″	2.13	[illegible]	B″	1.98	0.7795
	B‴	1.932	0.7606	B‴	1.855	0.7303	B‴	1.733	0.6822	B‴	1.983	0.7807	B‴	1.755	[illegible]	B‴	1.805	0.7106
Average		1.941	0.7641		2.002	0.7881		1.804	0.7118		1.965	0.7736		1.871	0.7366		1.845	0.7263
Measurements above average			83			47			75			83			76			[illegible]
Measurements below average			67			[illegible]			75			[illegible]			74			74

TABLE I.—*Measurements of fineness of wools*—Continued.

	WISCONSIN.																	
	EWES, 2 YEARS OLD.																	
Catalogue number of samples..	709.			710.			744.			745.			746.			762.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.50	2.125	2.00	1.375	2.50	1.50	1.50	1.625	1.625	2.00	1.25	2.375	1.50	1.625	2.00	1.25	1.625	1.75
	2.00	2.50	1.50	1.50	2.50	2.00	1.375	1.50	1.25	2.00	1.625	1.50	1.75	1.50	1.76	1.50	1.875	1.50
	1.50	2.50	2.00	1.375	2.00	2.50	1.50	1.875	1.50	1.625	1.625	2.00	1.50	1.25	1.875	1.75	1.50	2.00
	1.375	1.75	1.50	1.625	2.00	2.125	1.375	1.50	2.00	2.25	1.50	2.50	1.375	2.50	2.50	1.375	2.00	1.875
	1.125	1.625	2.125	1.50	2.375	2.625	1.625	1.625	2.125	2.00	1.75	2.00	2.00	1.75	2.00	1.625	2.00	2.00
	1.50	2.00	2.125	2.125	2.50	1.875	1.50	1.75	1.50	2.50	1.50	1.50	2.00	2.75	2.00	2.00	2.375	1.875
	1.625	2.375	1.875	2.25	3.00	2.00	1.625	1.25	2.125	2.50	1.50	1.50	2.125	1.50	2.125	1.875	1.50	2.00
	1.50	2.125	2.625	2.00	2.00	2.375	2.125	2.25	1.50	1.50	2.00	2.50	1.50	2.50	2.25	1.50	2.375	2.125
	2.125	2.00	1.375	1.50	2.25	1.00	2.375	2.125	2.125	1.50	2.125	1.875	2.00	2.50	2.00	2.125	2.00	2.25
	2.25	1.50	1.50	1.625	2.125	1.50	1.50	2.25	2.25	1.375	2.25	2.00	1.625	2.00	1.75	1.875	1.50	1.75
	1.50	1.625	1.625	2.00	2.50	2.00	1.375	1.00	2.00	1.50	2.00	2.50	2.00	1.50	1.875	1.875	1.025	1.875
	2.00	1.75	1.50	1.625	2.00	2.50	1.50	1.25	2.00	1.50	2.00	1.50	1.875	1.50	1.75	1.75	1.875	1.875
	1.25	1.50	2.00	1.625	2.625	2.50	2.00	1.50	2.00	1.75	2.50	2.25	1.50	1.50	2.125	2.00	1.875	1.625
	2.00	2.125	1.50	2.00	2.00	1.50	2.125	1.50	1.625	2.25	2.50	1.50	1.50	2.00	2.00	2.25	1.875	1.50
	2.50	1.375	2.00	2.25	1.875	1.50	1.00	1.50	1.75	2.50	1.50	1.50	1.50	2.50	2.625	1.50	1.50	1.50
	2.50	1.75	2.125	2.25	3.00	2.00	1.50	1.75	2.125	2.00	2.25	1.625	1.50	1.75	1.75	1.25	1.50	2.00
	2.00	2.125	2.00	1.75	2.00	1.75	1.25	1.875	1.75	1.875	2.00	2.25	1.50	2.125	1.875	1.50	1.625	1.625
	1.50	1.875	1.625	2.00	2.00	2.00	1.375	1.75	2.00	1.50	2.00	1.50	1.625	2.25	2.00	1.625	1.50	1.875
	1.50	1.75	2.625	2.00	2.25	2.00	1.50	1.50	2.00	1.875	2.00	1.625	1.50	2.625	1.625	1.625	1.50	1.375
	2.00	1.75	1.625	2.00	1.875	2.00	1.625	1.625	2.00	2.00	2.00	1.25	1.50	3.00	1.50	1.625	1.875	2.00
	1.50	2.00	1.375	1.75	2.125	2.50	1.00	1.625	1.50	1.50	1.50	1.50	1.625	2.50	2.00	1.50	1.75	1.50
	1.25	1.625	2.00	2.25	2.50	2.375	1.625	1.25	1.50	1.50	2.50	1.50	1.75	3.00	2.00	1.875	2.00	1.625
	2.00	1.625	2.25	2.00	2.25	2.375	1.75	1.25	1.625	1.375	1.75	1.50	3.50	2.125	1.75	1.625	1.875	1.50
	1.00	1.75	2.25	2.00	2.50	2.625	1.00	1.50	2.25	2.75	2.25	1.50	1.50	1.75	2.50	1.875	2.00	1.50
	1.50	2.00	1.25	2.50	2.625	1.50	1.50	1.75	2.125	2.50	1.50	1.625	1.50	3.00	2.00	1.75	1.625	1.625
	1.25	1.875	1.75	1.50	3.00	1.50	1.625	1.25	2.00	2.00	2.50	2.00	1.25	2.75	1.875	1.75	1.50	1.875
	1.50	1.875	2.875	2.00	2.50	1.125	2.00	1.50	1.50	1.50	1.50	2.00	1.375	1.50	2.50	1.50	2.00	1.875
	1.50	2.00	1.75	1.50	1.625	2.50	1.75	1.625	2.00	1.50	1.75	1.50	1.50	2.00	2.00	1.875	1.625	2.00
	1.50	1.875	1.25	1.875	2.125	2.00	1.875	2.00	1.50	1.625	1.50	1.625	1.625	1.50	2.25	1.875	2.00	1.875
	2.00	1.75	2.75	0.875	2.50	2.50	2.00	1.50	1.625	1.50	2.50	2.00	1.50	2.00	1.875	1.375	2.00	2.375
	1.00	2.00	2.25	1.625	2.50	2.50	1.50	1.50	1.75	1.375	1.75	1.50	2.125	2.50	2.25	2.00	2.375	1.875
	1.25	1.75	2.25	2.00	1.75	2.625	1.25	1.50	2.125	1.50	1.50	1.50	2.00	1.50	2.00	1.50	1.50	1.75
	1.625	2.75	1.625	1.625	2.00	1.50	1.875	1.875	2.125	1.50	1.50	1.75	2.00	1.50	1.50	1.50	2.00	2.00
	1.375	1.875	2.25	2.125	2.125	2.125	1.50	1.375	2.00	2.00	2.25	1.50	2.875	2.625	1.75	1.50	2.00	1.375
	1.50	1.25	1.25	2.125	2.25	2.25	2.00	1.50	1.75	1.50	2.50	1.50	2.00	2.00	1.75	1.50	1.375	1.625
	1.50	2.125	1.50	2.00	1.50	2.25	1.375	1.375	1.75	1.50	2.00	1.50	1.625	2.00	1.875	1.50	2.125	1.50
	1.50	1.625	2.25	2.00	2.50	1.50	1.75	1.50	1.75	2.00	1.75	1.50	1.75	2.00	1.875	1.50	1.50	1.75
	1.875	2.00	1.75	2.125	2.50	2.00	1.50	1.50	2.00	2.00	2.00	1.875	1.50	2.625	2.25	1.50	2.00	2.00
	1.75	1.75	2.00	2.00	2.125	2.50	1.625	1.50	2.00	1.625	1.75	2.00	1.50	1.50	2.625	2.00	2.00	1.875
	1.50	1.75	1.50	1.50	2.50	2.625	1.00	1.50	1.50	2.00	2.25	2.125	1.50	1.50	2.00	1.625	2.00	1.75
	1.75	1.75	2.00	1.50	3.00	2.625	1.50	1.375	1.75	1.50	1.75	2.125	2.00	1.625	1.625	1.50	2.125	2.25
	2.00	2.125	1.75	1.625	2.75	2.00	1.75	1.375	1.50	2.00	2.00	2.50	1.25	1.375	1.875	1.50	1.50	1.625
	1.50	2.00	2.50	1.375	2.00	2.00	1.625	2.00	1.50	1.25	1.75	1.50	1.25	1.50	1.75	1.625	1.75	2.25
	2.00	2.00	1.75	1.50	2.25	2.125	1.75	1.00	1.625	1.50	1.50	2.00	1.625	1.50	2.00	1.75	2.375	1.50
	1.50	2.125	1.75	1.50	1.75	3.00	1.875	2.125	1.50	1.75	1.50	2.25	1.50	1.50	1.875	2.50	1.50	2.125
	1.50	1.875	2.375	2.25	2.25	2.00	2.125	1.50	1.50	1.75	1.75	2.25	1.375	1.625	2.125	1.50	1.875	2.00
	1.50	2.00	2.00	2.00	2.50	2.125	2.50	1.50	1.50	1.50	1.625	1.00	1.50	1.75	2.00	2.00	2.125	1.75
	1.75	1.875	2.00	2.00	2.50	2.25	1.50	1.25	1.375	2.00	1.50	1.25	1.625	1.50	1.625	2.00	1.25	1.875
	2.00	2.00	2.125	2.00	2.375	2.50	1.50	1.25	2.00	1.50	2.125	2.00	1.375	2.00	1.50	1.50	1.50	2.50
	1.50	2.00	2.125	2.125	1.75	2.50	1.375	1.375	1.50	2.50	1.50	1.00	1.25	1.375	1.75	1.625	2.00	2.00
Totals	82.125	95.50	95.75	91.625	113.00	105.25	80.75	68.125	90.375	90.00	93.375	88.625	84.125	98.00	98.125	84.50	90.75	93.50

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.50	0.9842	B′	2.50	0.9842	B′	2.275	0.9350	B′	2.75	1.0826	B′	3.50	1.3779	B′	2.50	0.9842
	B″	2.50	0.9842	B″	3.00	1.1811	B″	2.25	0.8858	B″	2.50	0.9842	B″	3.00	1.1811	B″	2.375	0.9350
	B‴	2.875	1.1318	B‴	3.00	1.1811	B‴	2.25	0.8858	B‴	2.50	0.9842	B‴	2.625	1.0335	B‴	2.50	0.9842
Highest.....	.....	2.875	1.1318	.....	3.00	1.1811	.....	2.375	0.9350	.....	2.75	1.0826	.....	3.50	1.3779	.....	2.50	0.9842
Minimum measurements.	B′	1.00	0.3937	B′	0.875	0.3444	B′	1.00	0.3937	B′	1.25	0.4921	B′	1.25	0.4921	B′	1.25	0.4921
	B″	1.25	0.4921	B″	1.50	0.5905	B″	1.00	0.3937	B″	1.25	0.4921	B″	1.25	0.4921	B″	1.25	0.4921
	B‴	1.25	0.4921	B‴	1.00	0.3937	B‴	1.25	0.4921	B‴	1.00	0.3937	B‴	1.50	0.5905	B‴	1.375	0.5413
Lowest	.....	1.00	0.3937	.....	0.875	0.3444	.....	1.00	0.3937	.....	1.00	0.3937	.....	1.25	0.4921	.....	1.25	0.4921
Average measurements..	B′	1.643	0.6468	B′	1.833	0.7216	B′	1.615	0.6358	B′	1.80	0.7086	B′	1.682	0.6621	B′	1.69	0.6653
	B″	1.91	0.7519	B″	2.26	0.8897	B″	1.362	0.5362	B″	1.867	0.7350	B″	1.96	0.7716	B″	1.815	0.7145
	B‴	1.915	0.7539	B‴	2.105	0.8287	B‴	1.807	0.7114	B‴	1.672	0.6582	B‴	1.962	0.7724	B‴	1.87	0.7362
Average	.....	1.823	0.7177	.....	2.066	0.8133	.....	1.595	0.6279	.....	1.779	0.7003	.....	1.868	0.7354	.....	1.79	0.7047
Measurements above average..	.....	86		.....	71		.....	76		.....	66		.....	73		.....	72	
Measurements below average..	.....	64		.....	7[illegible]		.....	74		.....	84		.....	77		.....	78	

TABLE I.—*Measurements of fineness of wools*—Continued.

WISCONSIN.

EWES, 2 YEARS OLD.

Catalogue number of samples	763.			764.			765.			766.			767.			768.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.00	2.00	1.75	2.25	2.25	2.375	2.50	2.00	1.50	1.25	1.50	2.00	1.50	1.75	2.625	1.50	2.00	2.00
	1.50	2.25	2.00	2.00	2.00	1.375	2.00	2.375	1.375	1.875	1.875	2.00	2.125	1.50	1.50	1.50	1.75	1.75
	1.75	2.00	1.50	2.25	2.00	2.50	1.75	1.375	2.00	2.00	1.50	1.875	2.00	1.875	1.25	1.50	2.25	1.875
	2.25	2.125	2.00	1.25	2.25	2.00	2.00	1.625	2.50	2.00	1.875	2.375	2.00	1.625	1.625	2.375	2.00	1.875
	2.125	2.875	2.25	1.875	2.00	2.50	1.25	1.875	1.25	2.125	1.125	2.50	1.875	2.25	1.50	1.50	1.875	1.375
	2.25	2.00	2.375	2.00	2.375	1.25	1.50	1.50	1.25	1.50	1.50	2.50	1.50	2.75	1.75	2.00	1.25	1.50
	2.00	2.00	1.875	2.25	1.875	2.50	1.50	1.75	2.00	1.50	2.00	2.00	1.625	2.00	2.25	1.75	2.00	2.00
	2.125	1.75	1.50	1.875	2.25	2.00	1.625	2.125	2.00	1.75	1.50	1.375	2.50	2.00	1.50	1.375	1.75	2.125
	1.50	1.75	1.50	2.00	2.00	2.00	1.75	1.50	1.875	1.50	1.875	2.00	2.00	1.375	1.75	1.50	2.125	2.25
	1.75	2.125	1.75	2.50	2.25	2.50	2.375	1.50	1.375	1.625	1.625	2.00	1.75	1.50	1.75	1.50	1.50	1.50
	2.00	2.00	1.875	2.50	2.375	1.875	2.00	2.00	2.00	2.00	2.375	1.875	1.875	1.25	1.50	1.375	2.50	1.75
	2.00	2.00	1.75	2.75	2.25	2.50	1.50	1.50	2.125	1.75	1.75	2.00	1.50	2.00	1.50	1.375	2.00	2.00
	2.375	2.375	1.50	2.00	2.00	1.50	1.50	1.375	1.375	1.875	1.625	1.875	2.00	1.50	1.75	2.00	2.37.	2.50
	1.50	1.875	2.00	1.75	2.125	1.25	1.625	2.375	2.00	1.625	2.00	2.00	2.00	2.50	1.625	2.00	2.00	1.50
	1.75	1.75	2.25	1.875	2.25	1.25	1.875	2.125	2.00	2.00	2.00	1.875	1.875	2.00	2.00	2.25	1.875	1.50
	2.00	1.75	1.50	2.50	1.875	2.50	1.875	2.00	2.00	2.00	1.875	2.375	1.75	2.125	2.50	1.50	2.00	1.625
	2.00	1.75	2.25	2.50	2.00	2.25	2.50	2.00	2.25	1.75	2.50	2.25	2.125	1.50	1.75	1.25	2.00	1.50
	2.125	2.00	1.625	2.125	2.00	1.50	1.25	2.00	1.875	1.875	1.875	1.75	2.00	1.25	1.875	2.00	1.25	2.125
	2.00	2.00	2.00	1.875	2.00	1.75	1.50	1.50	2.00	2.00	2.50	2.375	2.125	1.125	1.75	2.50	2.50	2.00
	2.00	2.50	2.00	2.00	2.00	2.00	2.00	2.00	1.875	2.00	1.50	2.375	1.75	2.00	2.25	2.375	2.00	2.25
	2.00	2.00	1.75	2.50	1.875	1.625	1.625	1.875	1.75	1.75	1.625	2.00	1.50	2.50	1.75	1.50	1.375	2.00
	1.75	2.125	1.875	1.25	2.00	2.25	1.875	1.75	1.75	2.00	2.50	3.00	2.00	1.75	1.50	1.875	2.00	2.375
	1.875	2.25	2.00	1.625	2.00	2.75	1.75	2.375	2.125	1.625	2.00	2.50	2.00	2.00	2.25	1.375	1.875	1.75
	2.00	2.00	2.00	1.50	1.75	2.50	1.50	2.00	1.50	2.125	1.50	1.50	2.00	2.00	2.375	1.375	1.75	2.25
	2.00	1.875	2.00	2.00	2.125	2.00	1.50	2.00	2.00	1.875	2.00	1.875	1.875	1.875	1.75	2.75	2.25	1.50
	2.00	2.00	1.875	2.00	1.875	2.25	1.50	2.00	1.875	2.00	2.00	2.00	1.75	2.50	2.00	1.50	1.50	2.00
	1.875	1.875	1.875	1.50	2.00	2.50	2.375	1.50	2.00	2.00	2.00	2.125	2.125	2.125	2.25	1.75	1.75	1.50
	2.00	2.00	1.50	2.50	2.25	2.125	2.00	1.50	1.75	1.75	1.875	2.25	2.00	2.25	2.125	2.00	2.00	1.375
	2.50	2.125	2.50	1.75	2.00	3.00	1.50	2.00	2.50	1.375	2.00	3.00	2.00	2.50	2.00	1.25	1.50	1.25
	2.375	2.00	2.00	1.375	2.50	2.25	2.00	2.375	2.50	1.50	1.75	1.75	1.75	1.875	1.75	1.50	1.75	1.875
	2.00	2.00	2.00	1.50	2.00	2.00	1.875	2.125	2.875	1.50	2.375	3.00	1.625	2.00	1.50	2.00	1.875	2.50
	2.25	2.00	1.75	2.25	2.25	2.375	1.875	1.875	2.375	1.625	1.625	2.00	1.50	1.75	1.50	2.00	2.00	2.00
	2.00	2.125	1.625	2.125	2.25	1.75	1.875	1.75	1.625	2.00	1.875	3.00	2.00	1.875	1.875	1.625	1.50	2.125
	1.75	1.75	1.625	1.625	1.875	2.00	2.50	2.25	2.00	2.00	1.375	2.00	2.00	3.00	1.625	1.75	2.00	1.875
	1.875	2.875	1.50	1.50	2.00	2.125	1.875	1.50	1.50	2.00	1.875	2.50	2.125	2.50	2.00	1.50	2.25	2.50
	1.50	2.50	2.125	2.00	2.25	1.75	1.75	2.00	1.875	2.125	1.875	2.125	2.25	2.375	1.50	1.50	2.375	1.50
	2.00	1.75	1.875	2.00	2.375	2.00	1.75	2.00	2.00	2.00	1.50	2.00	1.75	1.50	2.00	2.50	1.875	1.50
	2.00	1.75	1.50	2.00	2.00	2.00	2.00	2.00	2.125	2.00	2.00	2.00	1.50	1.75	1.75	1.75	2.50	2.00
	2.125	2.00	1.625	2.00	1.875	2.00	1.50	1.00	2.00	2.00	1.50	1.625	1.75	1.625	1.875	2.00	1.50	2.125
	2.00	2.00	1.625	2.00	1.50	2.00	1.50	2.00	1.875	2.50	1.75	1.875	1.75	2.00	1.625	1.50	2.75	2.00
	2.125	1.875	1.50	2.00	1.75	1.75	1.875	1.375	1.875	2.25	1.875	1.625	2.00	1.50	2.00	2.00	2.00	2.125
	2.00	2.00	2.00	2.00	1.375	1.875	1.50	2.00	2.25	2.25	1.625	2.00	1.875	1.625	1.50	1.625	2.00	2.50
	2.375	1.75	2.25	1.875	2.00	2.125	2.00	2.125	2.00	1.50	2.00	2.375	2.00	1.875	2.125	2.00	2.125	1.75
	1.75	2.125	1.625	1.875	2.25	2.25	1.50	2.50	2.00	2.00	2.25	2.25	1.50	1.75	2.25	2.25	1.75	1.50
	2.00	1.25	1.625	2.00	2.375	2.125	2.00	2.00	1.625	2.00	1.875	1.50	1.75	2.00	2.00	2.00	1.625	2.50
	2.00	1.75	2.00	2.25	2.75	2.75	1.50	1.50	1.75	1.875	2.00	2.125	1.625	1.625	1.50	2.375	1.625	2.50
	2.125	2.25	2.125	2.00	1.75	2.00	1.50	1.50	2.50	2.00	2.50	2.00	1.875	1.75	1.25	2.25	1.50	2.375
	2.50	2.00	1.75	2.75	1.875	2.125	2.00	1.75	1.875	1.50	2.00	2.125	2.00	1.50	1.375	1.625	1.50	2.25
	2.375	2.00	2.00	2.125	2.00	2.25	2.125	2.00	2.00	1.625	2.25	1.875	2.25	1.875	1.75	1.75	2.00	2.25
	2.00	2.875	1.75	2.00	2.25	2.00	1.875	1.875	2.00	1.75	1.50	1.00	2.00	1.75	2.125	1.875	2.50	2.00
Totals	103.375	104.125	95.25	103.625	104.75	107.125	90.375	95.00	100.00	94.625	93.75	105.375	94.00	97.00	92.375	89.875	95.50	97.25

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.50	0.9842	B′	3.00	1.1811	B′	2.50	0.9842	B′	2.50	0.9842	B′	2.50	0.9842	B′	2.75	1.0826
	B″	2.50	0.9842	B″	2.50	0.9842	B″	2.50	0.9842	B″	2.50	0.9842	B″	2.75	1.0826	B″	2.75	1.0826
	B‴	2.50	0.9842	B‴	3.125	1.2303	B‴	3.00	1.1811	B‴	3.00	1.1811	B‴	2.625	1.0334	B‴	2.50	0.9842
Highest		2.50	0.9842		3.125	1.2303		3.00	1.1811		3.00	1.1811		2.75	1.0826		2.75	1.0826
Minimum measurements.	B′	1.50	0.5905	B′	1.25	0.4921	B′	1.25	0.4921	B′	1.25	0.4921	B′	1.50	0.5905	B′	1.25	0.4921
	B″	1.25	0.4921	B″	1.375	0.5413	B″	1.00	0.3937	B″	1.125	0.4429	B″	1.125	0.4429	B″	1.25	0.4921
	B‴	1.375	0.5413	B‴	1.25	0.4921	B‴	1.25	0.4921	B‴	1.00	0.3937	B‴	1.375	0.5413	B‴	1.25	0.4921
Lowest		1.25	0.4921		1.25	0.4921		1.00	0.3937		1.00	0.3937		1.50	0.5905		1.25	0.4921
Average measurements.	B′	2.068	0.8141	B′	2.078	0.8181	B′	1.868	0.7118	B′	1.892	0.7452	B′	1.88	0.7401	B′	1.798	0.7078
	B″	2.063	0.8260	B″	2.095	0.8248	B″	1.95	0.7677	B″	1.875	0.7380	B″	1.90	0.7480	B″	1.91	0.7519
	B‴	1.905	0.7499	B‴	2.112	0.8433	B‴	2.00	0.7874	B‴	2.118	0.8338	B‴	1.848	0.7275	B‴	1.913	0.7637
Average		2.02	0.7932		2.103	0.8270		1.902	0.7488		1.96	0.7716		1.876	0.7385		1.88	0.7401
Measurements above average			55			74			71			70			66			76
Measurements below average			95			76			79			71			84			74

TABLE I.—*Measurements of fineness of wools*—Continued.

	WISCONSIN.																	
	EWES, 2 YEARS OLD.												EWES, 3 TO 5 YEARS OLD.					
Catalogue number of samples	769.			782.			783.			787.			709.			701.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.50	2.00	3.50	1.75	1.50	2.375	2.50	2.125	1.875	1.625	1.875	2.00	2.50	1.75	2.00	1.625	2.50	1.50
	1.875	3.00	2.00	1.625	1.875	1.625	2.125	2.25	2.00	1.75	2.00	1.875	2.125	1.50	1.625	1.50	2.00	1.50
	2.00	1.875	2.125	2.00	2.00	1.875	2.25	2.50	2.00	2.00	2.00	1.625	1.50	2.50	2.00	2.25	1.75	1.50
	2.125	2.00	1.875	1.50	1.75	2.00	1.625	2.00	2.00	1.50	1.50	2.125	1.625	2.75	2.00	2.00	2.00	2.25
	1.875	2.00	1.50	2.00	1.50	2.00	1.50	2.00	2.00	2.00	1.50	2.50	1.25	2.375	2.375	1.50	2.00	1.50
	2.00	1.75	2.00	1.75	2.50	1.875	2.00	1.75	2.00	2.125	2.00	1.875	1.625	2.50	2.00	2.00	2.125	1.625
	2.25	1.375	2.00	1.50	1.50	1.625	2.375	1.75	3.00	1.875	2.125	1.875	2.25	2.50	2.50	1.75	2.00	1.375
	2.00	1.375	2.00	2.00	2.75	1.625	2.50	2.50	2.125	1.875	1.75	1.75	1.625	2.00	2.125	1.50	1.875	1.625
	2.25	1.50	2.00	1.625	2.375	2.00	1.50	2.00	2.125	2.00	1.50	1.625	1.375	2.00	2.50	2.25	2.00	1.50
	2.25	1.875	1.50	2.375	2.25	2.25	2.00	2.00	2.00	1.875	1.50	2.125	2.00	2.50	2.625	1.625	2.00	1.625
	1.75	2.00	1.875	1.50	2.00	1.875	2.125	2.50	2.00	1.75	1.625	2.125	2.00	2.25	2.00	2.00	2.00	1.875
	2.00	2.50	2.00	1.50	2.00	2.00	1.875	2.50	2.00	2.125	2.375	1.625	2.00	1.50	1.875	2.00	1.75	1.50
	2.125	1.375	2.00	1.50	1.75	1.75	2.00	2.00	2.50	1.625	1.50	1.875	2.00	1.75	1.50	1.75	1.625	2.25
	2.25	2.00	1.50	1.50	2.00	1.375	2.125	2.00	2.125	1.875	1.625	2.75	1.875	2.50	2.00	1.875	1.375	2.00
	2.00	1.75	2.375	1.375	1.50	1.50	2.50	2.00	2.00	1.75	2.00	2.50	1.50	2.00	1.50	1.125	1.875	2.125
	1.875	2.00	2.00	2.375	1.75	2.50	1.75	2.75	1.875	2.00	1.625	1.625	2.00	2.50	2.00	1.375	2.00	2.00
	1.50	2.375	1.625	2.00	1.50	2.00	1.50	2.00	2.25	2.00	2.50	3.00	1.50	2.50	1.75	1.75	2.125	1.75
	2.00	2.25	1.875	1.50	2.50	2.00	2.00	2.375	2.00	2.25	2.00	2.50	1.75	2.50	1.75	1.625	2.00	1.50
	2.375	1.75	1.50	2.50	2.25	2.00	1.875	2.00	2.25	1.875	1.50	2.00	2.50	1.50	2.00	1.50	2.375	2.00
	2.50	1.50	1.50	2.00	2.25	2.00	2.00	2.125	2.50	1.625	1.625	1.75	1.625	2.50	2.00	1.375	1.875	1.875
	2.25	1.50	1.50	1.75	2.375	2.00	1.50	3.00	2.75	1.625	1.875	2.50	1.75	2.625	1.875	1.50	1.75	1.50
	1.875	1.75	1.875	1.75	1.50	1.875	2.125	2.50	2.50	1.375	1.75	2.125	1.875	2.00	2.125	2.00	2.00	2.00
	2.00	1.75	2.00	1.50	2.125	2.00	2.50	2.25	2.25	1.875	1.625	1.875	2.00	2.50	2.375	2.125	2.125	1.50
	2.50	3.00	2.25	1.50	2.00	2.00	2.00	2.00	3.00	1.625	2.125	1.625	1.50	2.00	2.00	1.50	2.00	1.75
	1.75	2.75	1.875	2.00	2.00	2.00	2.00	2.00	2.125	2.125	1.75	2.00	1.50	2.00	1.875	2.50	2.00	1.75
	2.00	1.875	1.50	2.25	1.50	1.50	2.125	1.875	2.50	2.00	1.75	2.50	2.75	2.00	2.50	1.50	1.75	1.875
	2.375	1.875	1.875	1.50	1.50	1.50	2.00	2.00	2.00	1.875	1.875	2.50	2.00	2.50	2.625	1.50	1.75	1.50
	2.50	2.00	2.25	2.375	2.00	1.50	1.875	2.50	2.25	2.00	1.625	1.875	2.00	2.50	2.00	1.75	1.875	2.00
	2.125	2.50	1.875	1.875	1.50	1.75	2.125	2.50	2.50	2.125	1.625	2.00	1.75	1.875	1.875	1.75	2.25	1.50
	1.875	1.875	2.375	1.50	1.50	1.875	2.00	1.50	3.00	1.50	1.875	2.50	2.00	1.75	1.50	1.50	2.375	2.00
	2.00	1.625	1.375	1.875	1.625	1.875	1.75	1.625	1.625	1.75	2.00	2.00	2.25	3.00	2.00	1.50	2.25	1.625
	2.75	2.50	1.625	2.00	1.50	1.50	1.875	2.50	2.25	1.50	2.00	1.875	1.75	3.75	1.125	1.75	1.875	1.25
	1.875	1.875	1.75	2.00	1.50	1.875	2.50	1.375	2.30	1.875	1.875	2.125	1.50	1.50	1.625	1.50	2.375	1.375
	2.00	1.875	2.00	1.75	1.875	2.00	2.125	2.50	2.50	1.50	2.125	1.875	1.25	1.75	2.00	2.00	1.75	1.75
	2.50	2.00	1.75	1.875	1.50	1.50	2.00	2.00	3.00	1.625	1.625	2.00	1.375	2.00	1.75	2.25	1.50	1.50
	2.75	2.50	2.375	2.00	1.375	1.50	1.875	2.00	2.25	2.25	1.875	1.875	2.50	2.50	2.00	1.50	2.375	2.00
	2.25	3.25	2.00	2.00	1.50	2.00	2.50	2.75	2.125	2.25	1.875	2.375	2.00	2.00	2.50	1.50	2.50	2.125
	2.00	2.75	1.75	2.00	2.00	2.00	1.75	2.375	2.50	1.625	2.00	2.00	1.625	2.50	2.00	1.875	2.50	1.50
	2.125	2.50	1.875	2.125	1.50	2.00	2.00	2.00	2.00	2.00	1.875	3.00	1.75	2.00	2.00	1.50	2.00	2.00
	2.00	2.50	1.75	1.625	2.00	1.50	2.50	2.50	2.00	1.75	2.875	2.125	1.875	1.75	1.75	1.625	2.00	2.00
	2.00	2.75	1.875	1.625	1.375	1.75	2.75	2.00	2.375	1.625	2.00	2.125	2.25	2.50	1.375	1.50	1.625	1.875
	1.875	2.50	2.00	2.00	1.75	1.625	2.00	2.00	2.00	2.00	2.125	2.375	1.75	2.50	1.125	1.75	1.50	2.50
	2.25	2.00	2.00	1.75	1.25	1.50	2.375	2.50	1.875	2.50	1.50	1.50	1.625	1.75	2.50	1.625	2.50	2.00
	2.00	2.125	2.00	2.375	1.625	1.75	2.50	2.00	2.125	2.375	2.125	2.125	2.00	1.50	2.75	1.75	2.00	1.75
	1.75	1.50	2.00	2.00	1.50	1.50	2.50	2.125	2.00	1.75	1.875	2.125	1.875	2.00	1.50	1.25	1.50	2.00
	1.875	2.25	1.875	2.00	2.25	1.875	2.00	2.50	2.50	2.50	2.50	1.875	2.50	2.50	1.875	1.375	2.25	1.75
	2.00	1.375	1.50	2.00	2.00	1.75	2.00	2.50	2.00	1.875	2.00	2.00	3.00	2.00	1.625	1.125	2.50	2.125
	2.375	2.00	2.00	1.75	1.25	1.625	2.00	1.50	1.75	2.625	1.625	1.875	1.50	2.50	1.50	1.25	2.50	2.00
	2.00	2.25	2.00	2.50	2.00	1.50	2.00	2.25	2.125	2.75	2.00	1.875	2.25	1.50	2.00	1.50	1.50	1.75
	2.00	2.50	2.125	1.625	1.50	1.625	1.75	2.00	2.50	2.00	1.625	2.125	1.75	1.50	2.375	2.00	1.375	2.00
Totals	105.125	103.75	95.75	92.75	90.375	90.00	103.125	108.25	112.00	93.75	93.50	103.875	95.125	107.625	99.25	84.125	99.50	89.125

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements	B′	2.75	1.0826	B′	2.50	0.9842	B′	2.50	0.9842	B′	2.75	1.0826	B′	3.00	1.1811	B′	2.50	0.9842
	B″	3.25	1.2795	B″	2.50	0.9842	B″	3.00	1.1811	B″	2.875	1.1318	B″	3.75	1.4763	B″	2.50	0.9842
	B‴	3.50	1.3779	B‴	2.50	0.9842	B‴	3.00	1.1811	B‴	3.00	1.1811	B‴	3.00	1.1811	B‴	2.50	0.9842
Highest	.....	3.50	1.3779	.....	2.50	0.9842	.....	3.00	1.1811	.....	3.00	1.1811	.....	3.00	1.1811	.....	2.50	0.9842
Minimum measurements	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.25	0.4921	B′	1.125	0.4429
	B″	1.375	0.5413	B″	1.25	0.4921	B″	1.375	0.5413	B″	1.50	0.5905	B″	1.50	0.5905	B″	1.375	0.5413
	B‴	1.50	0.5905	B‴	1.375	0.5413	B‴	1.625	0.6397	B‴	1.50	0.5905	B‴	1.125	0.4429	B‴	1.25	0.4921
Lowest	.....	1.375	0.5413	.....	1.25	0.4921	.....	1.375	0.5413	.....	1.50	0.5905	.....	1.125	0.4429	.....	1.125	0.4429
Average measurements	B′	2.103	0.8279	B′	1.855	0.7303	B′	2.063	0.8122	B′	1.875	0.7380	B′	1.903	0.7492	B′	1.683	0.6625
	B″	2.075	0.8169	B″	1.808	0.7118	B″	2.165	0.8523	B″	1.87	0.7362	B″	2.153	0.8476	B″	1.990	0.7834
	B‴	1.915	0.7539	B‴	1.80	0.7086	B‴	2.24	0.8818	B‴	2.077	0.8177	B‴	1.985	0.7814	B‴	1.782	0.7019
Average	.....	2.03	0.7992	.....	1.82	0.7165	.....	2.15	0.8464	.....	1.937	0.7625	.....	2.014	0.7929	.....	1.819	0.7161
Measurements above average	.....	48		.....	74		.....	53		.....	71		.....	49		.....	73	
Measurements below average	.....	102		.....	76		.....	97		.....	79		.....	101		.....	77	

TABLE I.—*Measurements of fineness of wools*—Continued.

WISCONSIN.

EWES, 3 to 5 YEARS OLD.

Catalogue number of samples	702.			703.			705.			706.			707.			711.		
Number of section	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.
Actual measurement in centimillimeters.	1.75	2.25	2.00	1.875	2.00	2.50	2.25	3.00	3.00	1.625	2.00	2.25	1.625	2.50	1.875	2.125	2.00	1.50
	2.00	2.00	2.125	2.25	2.50	2.25	2.50	1.75	2.25	3.00	3.00	2.00	1.50	2.00	1.50	2.00	1.50	1.875
	1.50	1.625	2.00	2.75	1.625	3.00	2.375	1.75	2.125	1.75	2.00	2.50	1.375	2.50	2.00	3.00	1.50	1.50
	1.50	1.50	1.875	2.625	2.50	2.00	2.00	2.75	1.75	1.75	2.125	2.375	1.00	2.00	1.50	2.75	1.50	2.00
	1.75	2.125	2.50	1.50	2.00	1.50	1.75	2.00	1.75	2.00	2.00	2.375	1.50	2.375	1.50	2.125	1.75	1.50
	2.50	2.875	2.00	2.00	1.875	2.25	1.875	3.00	1.75	2.125	2.00	2.75	1.875	2.125	1.625	2.50	1.625	1.50
	2.00	1.625	2.00	1.75	2.50	1.25	2.375	2.00	2.00	1.50	2.25	2.75	1.25	2.00	1.875	1.50	2.00	2.00
	1.75	2.25	1.625	1.75	1.25	2.75	1.625	2.00	2.25	1.375	2.375	1.50	1.625	2.375	1.75	1.50	2.125	1.50
	1.25	2.125	2.25	1.875	1.625	2.50	1.50	2.75	2.50	1.625	2.04	1.50	2.125	2.50	2.25	2.00	2.00	2.00
	2.00	1.50	2.00	1.875	2.00	2.375	1.50	1.875	2.875	2.125	2.25	1.625	1.50	1.875	2.00	2.00	2.50	1.875
	1.75	1.50	1.75	2.00	2.00	1.25	2.50	2.125	2.00	1.875	2.00	1.50	1.50	2.00	1.50	2.50	1.75	2.00
	2.25	1.625	1.875	1.50	1.75	2.25	2.625	2.00	2.875	1.50	2.00	1.50	1.625	2.50	1.75	2.625	2.00	1.75
	2.00	2.00	2.125	1.625	1.875	2.00	1.75	2.375	2.50	1.75	2.50	1.75	1.625	2.375	1.25	2.75	2.00	1.75
	2.00	2.00	2.00	1.75	2.00	1.875	1.50	2.00	2.00	1.25	2.125	2.00	1.50	1.375	2.00	2.125	2.00	2.125
	1.75	1.875	1.875	1.875	3.00	2.375	3.00	1.75	1.875	2.00	2.375	1.375	1.50	2.00	1.50	2.00	2.375	1.50
	1.625	2.00	1.875	1.625	2.00	1.375	2.50	2.375	2.625	1.125	2.125	2.25	1.625	2.125	1.625	2.50	2.50	2.125
	2.50	1.875	1.75	1.75	2.125	1.50	2.50	2.375	2.75	1.00	2.50	1.625	1.75	2.125	1.75	2.125	1.75	2.00
	1.50	2.00	2.125	1.875	2.00	1.50	2.00	2.25	2.50	1.625	1.875	1.625	1.25	2.625	2.25	2.25	2.25	1.875
	2.00	1.50	1.75	1.50	1.625	1.50	2.25	1.625	2.00	1.50	2.00	2.375	2.375	2.75	2.50	2.25	2.00	2.00
	2.00	2.00	2.00	2.625	2.125	2.75	1.25	2.25	1.875	2.25	2.00	1.125	1.50	2.625	1.50	2.875	2.125	1.875
	1.50	1.50	2.00	2.00	2.00	2.00	2.00	2.25	2.00	2.25	1.50	2.00	1.25	2.25	2.00	2.00	1.625	1.50
	1.75	2.125	1.875	1.875	1.875	2.125	2.125	2.50	1.75	1.50	2.00	2.125	1.50	1.625	1.50	2.375	1.50	1.75
	1.25	2.00	2.375	2.00	1.75	2.50	2.50	2.375	1.625	1.625	2.00	1.50	1.75	2.50	1.50	2.125	2.00	2.00
	2.00	1.75	2.00	1.50	1.50	1.50	2.50	2.75	2.00	1.50	2.625	1.50	1.50	2.00	2.125	2.50	2.25	1.625
	1.625	1.875	1.75	1.50	2.00	2.125	2.75	2.50	2.25	1.625	2.375	1.50	1.75	2.00	2.375	2.375	2.00	1.50
	1.875	1.875	1.625	1.50	1.50	3.25	2.875	2.25	1.875	1.75	2.50	1.75	1.25	1.875	1.625	1.625	1.625	2.00
	1.75	2.875	1.50	2.125	1.50	2.25	1.75	2.50	2.00	2.00	2.25	2.25	1.625	2.00	1.125	1.875	2.50	2.00
	2.00	1.75	1.625	2.25	2.00	3.125	1.50	1.50	2.00	1.75	2.125	1.75	1.625	1.50	2.00	2.625	2.00	2.125
	1.50	2.00	1.75	1.50	2.50	2.625	1.50	1.75	2.00	1.50	2.125	1.50	1.75	1.50	1.875	2.50	2.125	2.025
	1.25	2.50	2.00	1.25	1.75	3.00	1.625	2.00	2.375	1.50	2.50	2.00	2.00	2.25	1.375	2.125	2.00	2.025
	2.00	1.875	1.875	1.125	1.50	2.50	2.375	2.00	2.25	2.00	1.875	2.00	1.50	2.00	2.375	3.00	2.125	2.75
	2.75	1.625	1.625	1.375	1.875	1.50	2.00	2.75	2.50	1.50	2.00	1.50	1.50	2.00	1.50	2.00	1.625	2.75
	1.625	2.00	2.00	1.50	2.00	1.50	2.125	2.375	2.625	1.50	2.375	1.625	1.75	2.00	1.125	1.50	2.50	2.00
	2.25	2.00	1.875	1.625	2.375	2.75	2.50	1.50	2.00	1.75	2.375	2.00	1.50	2.25	1.875	1.75	2.50	2.00
	1.75	1.50	1.625	1.25	2.00	2.625	2.375	2.00	1.50	1.50	1.875	2.00	2.00	1.875	1.50	2.00	2.00	2.125
	1.50	1.50	1.75	1.50	2.50	1.875	2.375	2.625	1.625	2.00	1.875	1.00	1.00	1.875	1.625	2.00	2.50	1.625
	2.00	1.75	1.625	1.50	2.50	2.00	2.25	1.50	1.875	2.125	1.875	1.75	1.75	2.75	2.50	2.125	2.25	2.125
	1.75	1.625	1.625	1.625	2.25	1.375	2.375	1.875	1.50	2.375	1.625	1.625	1.625	2.25	1.00	1.50	2.00	2.00
	1.50	2.00	1.50	1.25	2.00	1.75	1.50	3.50	2.00	2.50	2.25	1.50	1.50	3.00	1.875	2.625	2.00	1.625
	2.50	2.50	2.00	1.75	1.50	2.00	1.75	2.50	2.125	2.125	2.125	1.50	1.50	2.50	1.50	2.625	1.75	2.50
	1.50	2.50	1.625	1.875	1.75	2.25	1.625	3.00	2.625	2.125	2.00	1.375	1.375	1.75	2.50	2.50	2.50	2.00
	2.50	1.50	2.00	2.125	1.625	2.25	1.875	3.25	1.50	2.00	1.50	2.56	2.56	2.56	2.125	3.00	2.00	2.00
	2.00	2.00	1.75	1.50	1.875	2.125	1.875	1.75	2.00	2.50	1.375	1.50	1.50	2.00	2.375	2.125	2.50	2.25
	2.25	2.50	1.50	1.50	2.00	2.00	2.00	1.50	1.50	2.25	1.625	1.75	1.75	2.125	1.875	1.625	2.375	2.00
	2.00	2.50	1.375	1.875	2.00	2.375	1.875	2.375	1.75	2.00	1.50	1.50	1.50	2.125	2.25	2.00	2.25	2.00
	1.625	1.75	1.625	2.00	1.75	2.25	2.125	2.50	3.50	2.00	2.00	2.00	2.00	2.25	1.50	2.75	2.375	2.00
	1.75	2.375	2.25	2.50	2.75	1.625	2.00	1.875	2.25	2.00	2.125	1.50	1.50	2.375	2.625	2.125	1.875	2.25
	1.50	2.125	2.125	1.50	1.50	3.25	1.50	3.00	2.75	1.875	1.75	1.75	1.75	2.00	2.375	3.00	2.50	2.00
	2.25	2.00	2.00	1.625	1.75	2.00	1.625	3.00	2.375	1.75	1.50	2.00	2.00	2.00	1.50	2.00	1.50	1.75
Totals	92.875	98.875	94.25	88.625	98.25	100.625	112.875	112.125	107.625	88.00	107.625	90.875	95.375	107.375	91.00	112.00	102.625	97.125

Recapitulation and reduction	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Maximum measurements	B'	2.75	1.0826	B'	2.75	1.0826	B'	3.00	1.1811	B'	3.00	1.1811	B'	2.50	0.9842	B'	3.00	1.1811
	B''	2.875	1.1318	B''	3.00	1.1811	B''	3.50	1.3779	B''	3.00	1.1811	B''	3.00	1.1811	B''	3.00	1.1811
	B'''	2.50	0.9842	B'''	3.25	1.2795	B'''	3.50	1.3779	B'''	2.50	0.9842	B'''	2.625	1.0334	B'''	2.75	1.0826
Highest		2.875	1.1318		3.25	1.2795		3.50	1.3779		3.00	1.1811		3.00	1.1811		3.00	1.1811
Minimum measurements	B'	1.25	0.4921	B'	1.125	0.4429	B'	1.25	0.4921	B'	1.00	0.3937	B'	1.00	0.3937	B'	1.50	0.5905
	B''	1.50	0.5905	B''	1.25	0.4921	B''	1.50	0.5905	B''	1.50	0.5905	B''	1.375	0.5413	B''	1.50	0.5905
	B'''	1.375	0.5413	B'''	1.25	0.4921	B'''	1.50	0.5905	B'''	1.125	0.4429	B'''	1.00	0.3937	B'''	1.50	0.5905
Lowest		1.25	0.4921		1.125	0.4429		1.25	0.4921		1.00	0.3937		1.00	0.3937		1.50	0.5905
Average measurements	B'	1.856	0.7314	B'	1.773	0.6980	B'	2.258	0.8889	B'	1.76	0.6755	B'	1.668	0.6330	B'	2.24	0.8818
	B''	1.978	0.7787	B''	1.965	0.7736	B''	2.243	0.8830	B''	2.153	0.8476	B''	2.148	0.8456	B''	2.053	0.8082
	B'''	1.885	0.7421	B'''	2.133	0.8397	B'''	2.153	0.8476	B'''	1.818	0.7157	B'''	1.820	0.7165	B'''	1.943	0.7649
Average		1.907	0.7507		1.957	0.7704		2.218	0.8732		1.910	0.7519		1.859	0.7318		2.079	0.8185
Measurements above average			71			76			67			81			70			63
Measurements below average			76			74			83			69			72			87

TABLE I.—*Measurements of fineness of wools*—Continued.

	WISCONSIN.																	
	EWES, 3 TO 5 YEARS OLD.																	
Catalogue number of samples	712.			713.			716.			717.			718.			719.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.50	2.50	1.50	1.875	2.25	1.875	2.50	1.625	2.50	2.50	1.625	2.625	2.50	2.75	1.875	2.125	2.50	1.875
	1.50	2.25	2.00	1.50	2.375	2.25	2.125	1.875	2.375	3.75	1.50	1.75	2.125	1.75	2.25	1.875	2.50	2.00
	1.50	2.00	1.50	1.75	1.625	1.875	2.25	2.00	2.00	2.00	1.75	2.00	2.25	2.00	2.50	2.00	2.25	2.50
	2.00	1.875	1.50	1.75	1.75	1.75	2.50	2.00	2.125	2.375	1.625	2.00	2.00	1.625	2.125	1.75	2.75	2.125
	1.50	1.75	1.25	1.50	1.50	2.00	2.00	1.75	2.125	2.25	1.875	1.75	1.875	2.00	1.875	1.50	2.625	1.875
	2.25	2.25	1.50	2.25	1.50	1.75	2.25	1.875	2.75	1.875	1.75	1.875	1.625	1.75	1.75	2.75	2.50	1.625
	2.25	2.00	1.625	2.00	1.50	1.50	2.375	2.25	2.25	1.75	1.875	2.125	2.50	2.50	3.25	2.00	2.00	2.75
	2.375	2.50	2.00	2.00	1.75	3.00	2.50	2.00	2.375	2.25	1.625	2.125	1.875	1.50	2.125	1.375	2.00	2.625
	1.75	2.50	1.50	1.75	1.75	2.00	2.50	2.375	3.25	2.50	1.75	2.75	3.125	2.125	2.00	2.75	2.25	2.125
	1.625	2.50	1.625	1.50	1.50	2.25	2.00	2.00	1.75	2.75	1.75	2.00	3.00	1.50	2.50	1.75	2.125	2.50
	1.50	1.75	1.75	2.00	2.375	1.875	1.875	2.00	2.25	1.875	1.875	1.875	2.125	2.75	2.00	2.00	2.125	2.375
	1.625	2.00	1.25	1.50	2.00	2.75	2.50	1.75	2.375	2.00	1.75	2.00	3.25	2.00	3.125	1.625	2.00	1.75
	1.25	2.25	1.625	2.00	2.00	1.875	2.125	1.50	2.125	1.875	1.875	1.75	1.875	2.00	1.875	1.75	3.00	2.125
	2.125	1.75	1.75	1.875	1.50	1.875	2.00	1.50	2.375	1.875	1.75	1.875	2.00	2.50	1.75	2.00	2.625	2.50
	2.25	2.50	2.00	2.375	2.25	2.125	2.00	1.875	2.25	1.50	1.625	2.50	1.875	1.625	2.625	2.25	1.875	2.125
	1.50	2.50	1.50	1.875	1.50	2.00	2.00	1.75	2.00	2.25	1.75	2.125	1.875	2.50	3.125	2.375	2.00	2.375
	1.50	2.50	2.00	1.50	1.50	2.25	1.875	1.75	2.00	2.00	1.875	2.60	3.00	2.50	2.00	2.00	2.00	2.50
	2.00	2.00	0.50	1.50	1.75	1.75	2.00	1.875	2.50	2.00	1.75	2.00	1.875	2.00	2.50	1.875	2.375	2.375
	2.25	2.00	1.50	2.00	1.875	1.875	2.00	1.50	2.00	1.875	2.75	1.875	2.125	2.00	1.625	2.00	2.25	2.00
	2.625	2.00	1.50	1.50	1.625	2.125	1.50	1.75	2.00	1.875	2.00	2.75	2.00	1.75	2.00	2.50	3.00	1.875
	2.875	1.75	2.125	1.75	1.50	2.00	2.50	2.00	2.875	1.75	1.875	2.375	1.50	3.50	2.375	2.50	1.75	2.00
	2.00	2.25	1.50	1.75	1.875	2.60	2.00	1.50	2.75	2.00	1.625	2.375	1.875	2.25	2.625	2.00	2.00	2.375
	2.00	2.00	1.625	2.00	1.875	2.25	2.50	2.125	3.00	2.00	1.75	2.00	2.75	2.50	2.25	1.875	1.75	2.125
	1.50	1.625	1.125	1.50	1.50	2.125	1.875	2.00	2.25	1.875	1.625	2.00	2.375	2.375	2.50	1.75	2.50	1.875
	1.75	2.125	1.50	2.125	1.75	2.00	2.00	2.50	1.875	1.875	2.50	1.875	2.875	2.00	1.625	1.75	2.00	2.00
	1.00	2.25	1.50	2.125	1.875	1.875	2.50	2.50	3.25	1.75	3.00	2.125	2.50	1.875	2.50	2.00	2.75	1.875
	1.50	2.25	1.375	2.00	1.50	1.625	2.375	1.50	2.00	2.00	2.375	2.25	2.125	1.75	1.75	1.75	2.25	2.375
	1.50	2.50	2.25	1.25	2.00	1.75	2.125	1.75	1.875	1.75	2.00	2.50	2.00	1.75	2.00	1.875	2.00	1.50
	1.50	2.50	1.50	1.50	1.75	2.00	3.00	2.00	2.125	1.875	2.375	2.125	2.25	2.00	1.75	2.00	1.875	2.00
	2.00	2.00	2.125	1.50	1.50	2.50	2.50	1.875	2.25	1.75	3.00	2.00	1.875	2.00	2.50	2.125	2.25	2.375
	2.50	2.00	2.00	1.50	2.00	2.375	2.00	1.625	3.00	2.125	2.25	2.50	2.125	2.50	2.50	1.875	2.00	1.50
	2.00	3.00	1.75	1.75	2.00	2.125	2.00	2.00	2.00	1.75	2.00	2.50	1.375	1.50	1.75	1.375	2.25	2.25
	1.50	2.125	2.375	1.625	1.00	1.875	2.875	1.75	2.125	1.75	2.00	1.75	2.00	2.50	1.50	2.00	2.00	2.375
	2.125	1.75	2.625	2.00	2.00	2.50	2.25	1.875	2.00	1.50	2.00	2.125	2.00	2.25	3.00	2.00	1.875	2.375
	1.50	2.50	2.625	1.50	1.50	2.00	1.875	2.00	2.00	1.875	1.50	2.25	2.00	1.875	2.50	1.50	1.625	2.00
	1.50	2.50	1.875	1.50	1.875	2.375	2.50	2.00	1.50	1.50	2.00	2.00	1.875	1.75	2.125	1.875	1.875	2.00
	1.875	2.00	1.50	1.75	2.00	1.875	2.50	2.125	2.25	2.00	2.375	1.875	1.50	2.00	2.50	2.00	2.00	2.125
	2.00	2.125	1.75	1.75	1.50	1.50	2.375	2.50	2.375	2.00	2.50	2.00	1.625	2.75	1.875	2.375	2.00	2.00
	2.50	1.75	2.00	1.50	1.50	1.875	2.875	2.00	2.50	1.75	2.00	2.375	2.125	1.75	1.50	1.625	2.00	2.50
	1.50	2.00	2.00	1.50	2.00	1.75	2.00	2.00	2.00	2.125	1.625	2.50	2.50	2.00	2.50	2.00	1.50	2.125
	1.50	2.125	1.75	2.125	2.00	2.00	2.50	1.75	2.50	2.25	2.00	2.00	2.00	1.85	2.25	2.375	1.875	2.00
	2.125	1.875	1.75	1.50	2.25	2.00	2.375	2.00	2.00	2.00	2.75	2.375	2.00	2.00	2.375	2.125	2.00	2.375
	2.00	1.75	1.625	2.00	1.875	1.75	2.125	2.00	1.875	2.75	2.25	2.50	2.00	1.75	1.875	2.00	2.50	2.25
	2.00	1.875	2.00	2.00	1.50	2.25	2.50	2.00	2.125	1.75	2.00	2.00	2.00	1.875	2.125	2.375	2.50	2.50
	1.50	2.00	2.125	1.50	2.00	2.00	2.50	3.00	2.25	1.75	2.00	2.50	2.75	2.00	2.25	1.75	2.00	2.00
	1.50	1.75	1.50	1.75	2.00	1.75	2.50	2.00	1.875	2.00	2.50	2.50	2.00	2.25	2.25	1.50	2.50	2.50
	2.50	1.50	1.625	2.00	2.00	2.00	2.375	1.625	2.625	2.25	2.25	2.00	2.00	2.00	1.50	2.25	2.125	2.375
	1.50	2.50	2.00	2.00	2.00	2.375	3.00	1.75	2.50	3.00	2.00	2.00	3.00	1.75	2.00	1.625	2.25	2.00
	2.375	1.75	2.50	1.375	1.50	2.25	1.875	2.125	2.00	2.25	3.00	2.375	1.875	2.00	2.00	1.75	1.75	1.875
	1.75	1.75	1.625	1.00	1.875	2.00	2.00	2.00	2.00	2.00	2.75	2.375	2.125	2.00	1.50	2.50	2.00	2.00
Totals	92.25	105.25	98.00	87.125	89.375	101.50	113.25	94.875	113.125	101.125	101.50	106.875	107.875	104.50	108.625	98.75	107.50	107.625

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reductions:																		
Maximum measurements.	B′.	2.875	1.1318	B′.	2.50	0.9842	B′.	3.00	1.1811	B′.	3.75	1.4763	B′.	3.25	1.2795	B′.	2.50	0.9842
	B″.	3.00	1.1811	B″.	2.375	0.9350	B″.	2.50	0.9842	B″.	3.00	1.1811	B″.	3.50	1.3779	B″.	3.00	0.1811
	B‴.	2.625	1.0334	B‴.	2.50	0.9842	B‴.	3.25	1.2795	B‴.	2.75	1.0826	B‴.	3.25	1.2795	B‴.	2.625	1.0334
Highest		3.00	1.1811		2.50	0.9842		3.25	1.2795		3.75	1.4763		3.50	1.3779		3.00	1.1811
Minimum measurements.	B′.	1.25	0.4921	B′.	1.50	0.5905	B′.	1.50	0.5905	B′.	1.50	0.5905	B′.	1.50	0.5905	B′.	1.375	0.5413
	B″.	1.50	0.5905	B″.	1.00	0.3937	B″.	1.50	0.5905	B″.	1.50	0.5905	B″.	1.50	0.5905	B″.	1.625	0.6397
	B‴.	1.125	0.4429	B‴.	1.50	0.5905	B‴.	1.50	0.5905	B‴.	1.75	0.6889	B‴.	1.50	0.5905	B‴.	1.50	0.5905
Lowest		1.125	0.4429		1.00	0.3937		1.50	0.5905		1.50	0.5905		1.50	0.5905		1.375	0.5413
Average measurements.	B′.	1.845	0.7263	B′.	1.742	0.6858	B′.	2.265	0.8917	B′.	2.022	0.7960	B′.	2.157	0.8492	B′.	1.975	0.7773
	B″.	2.105	0.8287	B″.	1.783	0.7019	B″.	1.898	0.7472	B″.	2.03	0.7992	B″.	2.09	0.8228	B″.	2.19	0.8622
	B‴.	1.96	0.7716	B‴.	2.023	0.7964	B‴.	2.262	0.8905	B‴.	2.137	0.8413	B‴.	2.172	0.8551	B‴.	2.152	0.8472
Average		1.47	0.7755		1.849	0.7279		2.141	0.8429		2.063	0.8122		2.139	0.8381		2.106	0.8291
Measurements above average		75			83			58			55			53			66	
Measurements below average		75			67			92			95			97			84	

TABLE I.—*Measurements of fineness of wools*—Continued.

WISCONSIN.

EWES, 3 TO 5 YEARS OLD.

Catalogue number of samples..	720.			721.			722.			723.			770.			771.		
Number of section.....	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.
Actual measurement in centimillimeters.	2.00	[illegible]	[illegible]	2.50	2.50	[illegible]	[illegible]	2.375	2.00	1.625	2.00	2.00	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.875
	[illegible]	2.25	2.50	2.625	2.25	[illegible]	2.125	2.25	2.00	1.875	1.25	1.875	1.75	1.625	[illegible]	1.75	1.875	2.00
	2.625	2.50	1.875	[illegible]	2.00	2.125	2.375	2.125	2.00	1.375	1.25	2.125	1.875	1.75	1.875	1.875	[illegible]	[illegible]
	2.125	2.50	1.875	2.375	2.25	2.50	2.25	[illegible]	2.00	1.75	1.25	2.25	1.75	1.75	2.125	[illegible]	[illegible]	2.125
	1.875	2.00	1.625	2.00	2.00	2.375	[illegible]	1.875	2.00	1.75	[illegible]	1.75	1.625	2.25	1.75	1.875	2.375	1.75
	1.875	2.75	1.625	2.50	1.75	[illegible]	[illegible]	2.50	2.125	1.625	1.875	1.875	[illegible]	1.875	[illegible]	2.375	2.125	1.875
	[illegible]	2.875	2.50	2.375	1.625	2.00	2.625	2.25	[illegible]	2.375	[illegible]	[illegible]	1.50	2.00	[illegible]	1.625	2.125	2.375
	[illegible]	2.50	2.00	2.625	[illegible]	2.00	[illegible]	2.125	1.875	1.625	2.00	1.625	[illegible]	1.875	2.375	[illegible]	2.25	[illegible]
	1.375	1.50	2.625	2.625	2.125	2.50	[illegible]	[illegible]	2.00	1.75	1.875	1.50	1.75	2.00	2.25	1.875	1.875	1.875
	[illegible]	2.125	2.125	[illegible]	1.75	2.375	2.50	2.25	[illegible]	1.75	1.75	[illegible]	[illegible]	2.375	[illegible]	1.875	2.25	[illegible]
	[illegible]	1.625	2.50	2.50	1.875	[illegible]	2.375	2.50	[illegible]	2.00	1.75	[illegible]	1.75	2.125	[illegible]	1.875	[illegible]	2.50
	[illegible]	1.50	1.875	2.375	[illegible]	[illegible]	1.75	[illegible]	1.875	2.375	[illegible]	[illegible]	[illegible]	2.125	2.00	[illegible]	[illegible]	2.125
	1.625	2.00	2.50	2.50	2.25	2.125	1.875	[illegible]	1.875	[illegible]	1.50	2.125	1.50	2.375	2.25	2.125	1.625	1.875
	[illegible]	2.25	2.50	[illegible]	1.625	2.375	1.75	2.00	[illegible]	2.375	1.50	[illegible]	1.375	[illegible]	1.875	2.50	1.75	2.50
	[illegible]	1.75	1.75	1.625	2.00	2.00	2.50	2.125	2.375	2.50	1.50	[illegible]	1.50	1.875	2.375	1.875	1.875	2.375
	2.125	[illegible]	[illegible]	1.375	1.875	2.00	2.875	2.375	3.25	2.375	1.75	2.25	2.00	1.50	[illegible]	2.50	2.00	1.75
	1.50	[illegible]	1.875	[illegible]	2.25	[illegible]	1.75	[illegible]	2.875	1.875	1.875	1.875	1.375	2.50	[illegible]	1.625	1.875	2.00
	[illegible]	2.50	1.875	2.00	2.50	2.00	[illegible]	[illegible]	[illegible]	2.00	2.00	1.625	1.50	1.875	2.00	1.875	2.00	2.50
	2.125	[illegible]	[illegible]	2.375	[illegible]	[illegible]	1.875	2.25	[illegible]	2.375	1.75	1.875	1.875	1.625	2.00	1.625	2.625	1.875
	[illegible]	1.75	[illegible]	2.125	2.00	1.875	2.00	1.875	2.125	1.625	[illegible]	[illegible]	1.625	2.375	1.875	1.875	1.875	2.75
	1.75	1.75	1.875	2.625	2.125	[illegible]	2.25	1.75	[illegible]	1.875	[illegible]	[illegible]	1.75	1.75	2.375	[illegible]	1.625	1.875
	[illegible]	1.875	[illegible]	2.00	[illegible]	1.50	2.625	[illegible]	2.50	1.75	2.125	1.875	1.50	1.625	2.00	2.375	1.875	1.50
	[illegible]	[illegible]	2.375	2.875	2.00	[illegible]	[illegible]	2.125	2.125	1.75	1.75	[illegible]	1.50	[illegible]	2.50	1.75	2.00	1.75
	2.125	2.00	2.00	2.625	[illegible]	1.875	[illegible]	2.25	2.375	[illegible]	1.75	2.125	1.50	[illegible]	2.375	1.625	2.50	2.00
	[illegible]	2.25	1.875	2.50	2.25	2.50	2.375	[illegible]	[illegible]	1.50	[illegible]	1.875	1.875	1.875	2.375	1.50	2.00	[illegible]
	2.75	2.375	2.00	2.375	2.375	[illegible]	2.125	2.375	2.50	1.875	[illegible]	1.625	[illegible]	1.50	2.00	1.625	2.50	2.00
	[illegible]	1.875	[illegible]	[illegible]	2.25	2.50	2.375	2.50	2.125	[illegible]	2.125	2.00	1.50	1.50	1.75	2.50	2.00	2.00
	1.875	[illegible]	1.625	2.125	[illegible]	2.75	[illegible]	2.125	2.125	2.125	1.625	1.75	1.50	[illegible]	2.00	1.875	1.875	2.25
	[illegible]	2.00	2.125	[illegible]	[illegible]	1.75	2.00	2.00	[illegible]	1.50	[illegible]	[illegible]	1.50	2.125	2.00	1.50	2.625	2.00
	2.125	[illegible]	2.50	2.25	2.375	1.875	2.375	2.00	[illegible]	2.00	[illegible]	2.125	1.875	2.25	1.75	1.625	2.00	[illegible]
	[illegible]	2.375	2.00	2.50	2.375	1.875	[illegible]	2.25	2.375	1.625	[illegible]	[illegible]	1.875	[illegible]	1.50	2.00	2.125	2.25
	[illegible]	2.25	2.375	2.50	1.625	[illegible]	1.875	2.375	2.125	1.75	1.875	2.125	1.625	2.375	2.00	2.125	3.00	1.875
	[illegible]	2.125	2.375	2.375	[illegible]	[illegible]	2.125	2.25	[illegible]	1.50	1.75	1.75	[illegible]	2.125	2.50	1.875	2.50	[illegible]
	2.375	2.75	[illegible]	2.75	2.00	[illegible]	2.875	1.75	1.75	[illegible]	[illegible]	1.875	[illegible]	2.50	2.75	[illegible]	1.625	1.875
	2.50	1.875	1.625	2.00	2.25	2.375	2.125	[illegible]	[illegible]	1.50	1.75	[illegible]	1.75	1.75	2.25	[illegible]	2.00	[illegible]
	2.125	2.00	[illegible]	2.125	2.125	[illegible]	2.00	2.50	[illegible]	[illegible]	1.875	[illegible]	1.75	1.625	2.00	1.875	1.50	[illegible]
	1.375	2.125	2.00	1.875	2.00	2.50	1.50	[illegible]	1.875	[illegible]	2.125	2.50	1.50	1.50	2.875	[illegible]	2.375	[illegible]
	[illegible]	[illegible]	[illegible]	2.125	2.375	[illegible]	2.125	1.75	1.875	2.125	2.125	2.00	1.50	2.375	1.875	1.875	2.00	2.00
	2.50	3.00	3.00	2.50	2.25	1.875	[illegible]	1.75	[illegible]	1.75	1.625	1.625	1.75	1.50	2.125	1.875	[illegible]	[illegible]
	2.125	1.50	2.50	2.50	2.125	[illegible]	1.875	1.50	[illegible]	1.75	1.625	1.625	1.75	1.375	2.00	2.125	2.375	1.875
	1.50	2.125	2.50	2.375	[illegible]	1.875	2.50	3.25	2.125	1.625	1.75	[illegible]	[illegible]	[illegible]	2.00	1.75	2.00	2.125
	[illegible]	2.25	[illegible]	2.00	3.125	[illegible]	[illegible]	2.25	[illegible]	2.00	1.875	1.75	1.625	[illegible]	1.75	[illegible]	1.875	2.50
	[illegible]	2.00	2.125	2.50	[illegible]	2.75	2.00	2.375	1.875	1.625	2.00	1.625	1.50	[illegible]	2.00	2.00	1.75	2.00
	2.25	1.625	[illegible]	2.875	2.50	2.75	2.00	2.125	2.125	[illegible]	[illegible]	[illegible]	2.50	[illegible]	1.50	2.00	2.00	2.50
	2.50	1.75	1.875	2.875	2.125	2.375	2.00	2.375	[illegible]	1.75	1.875	1.50	1.75	2.375	2.00	2.00	2.00	2.50
	2.875	2.25	2.125	2.125	3.00	2.50	2.375	2.00	1.875	2.125	2.125	[illegible]	1.50	2.375	2.50	2.50	1.625	2.00
	1.625	2.00	2.125	2.375	2.50	[illegible]	2.375	[illegible]	2.50	2.50	[illegible]	2.25	2.50	2.375	1.50	1.625	2.00	1.75
	[illegible]	2.25	[illegible]	2.125	2.375	2.375	2.125	2.375	1.875	1.50	2.50	1.625	1.50	[illegible]	1.875	1.875	1.875	2.00
	1.875	2.00	2.00	2.375	[illegible]	2.25	[illegible]	2.125	1.875	1.875	[illegible]	[illegible]	1.50	2.50	2.00	[illegible]	2.375	2.50
	1.50	2.00	2.375	2.875	2.25	[illegible]	2.50	2.25	[illegible]	1.875	1.375	1.375	[illegible]	1.625	2.50	2.00	2.375	1.875
Totals	102.25	105.25	[illegible]	115.625	109.50	109.25	108.025	[illegible]	106.75	94.00	93.875	90.875	86.25	100.50	104.00	97.00	103.25	104.75

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B'.	3.00	1.1811	B'.	2.875	1.1318	B'.	2.875	1.1318	B'.	[illegible]	0.9842	B'.	2.50	0.9842	B'.	2.50	0.9842
	B''.	[illegible]	1.1811	B''.	3.125	1.2303	B''.	3.25	1.2795	B''.	2.50	0.9842	B''.	2.50	0.9842	B''.	3.00	1.1811
	B'''.	3.00	1.1811	B'''.	3.00	1.1811	B'''.	3.25	1.2795	B'''.	2.50	0.9842	B'''.	2.875	1.1318	B'''.	2.75	1.0826
Highest.....	.....	3.00	1.1811	.....	3.125	1.2303	.....	3.25	1.2795	.....	[illegible]	0.9842	.....	2.875	1.1318	.....	3.00	1.1811
Minimum measurements.	B'.	1.375	0.5413	B'.	1.375	0.5413	B'.	1.50	[illegible]	B'.	1.375	0.5413	B'.	1.375	0.5413	B'.	1.50	0.5905
	B''.	1.50	0.5905	B''.	1.625	0.6397	B''.	1.50	0.5905	B''.	1.25	0.4921	B''.	1.375	0.5413	B''.	1.50	0.5905
	B'''.	1.50	0.5905	B'''.	1.50	0.5905	B'''.	1.75	[illegible]	B'''.	1.375	0.5413	B'''.	1.50	0.5905	B'''.	1.50	0.5905
Lowest	.....	1.375	0.5413	.....	1.375	0.5413	.....	1.50	0.5905	.....	1.25	0.4921	.....	1.375	0.5413	.....	1.50	0.5905
Average measurements.	B'.	2.045	0.8051	B'.	2.312	0.9102	B'.	2.173	0.8555	B'.	[illegible]	0.7401	B'.	1.725	0.6791	B'.	1.94	0.7637
	B''.	2.105	0.8287	B''.	2.19	0.8622	B''.	2.188	0.8614	B''.	1.878	0.7393	B''.	2.01	0.7913	B''.	[illegible]	0.8129
	B'''.	2.11	0.8307	B'''.	2.185	0.8602	B'''.	2.135	[illegible]	B'''.	[illegible]	0.7629	B'''.	[illegible]	0.8188	B'''.	2.095	0.8248
Average	.....	2.086	0.8212	.....	2.262	0.8905	.....	2.165	0.8523	.....	1.890	0.7476	.....	1.91	0.7637	.....	2.03	0.7992
Measurements above average..	.....	[illegible]		.....	61		.....	56		.....	72		.....	79		.....	45	
Measurements below average..	.....	88		.....	89		.....	[illegible]		.....	78		.....	71		.....	105	

TABLE I.—*Measurements of fineness of wools*—Continued.

	WISCONSIN.															MINNESOTA.		
	EWES, 3 TO 5 YEARS OLD.									EWES, VERY OLD.						RAMS, 2 TO 3 YEARS OLD.		
Catalogue number of samples..	784.			785.			786.			714.			715.			502.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.50	1.50	1.625	2.50	2.00	1.50	1.875	1.50	1.75	1.875	1.625	2.00	2.00	2.00	2.50	1.75	1.50	2.50
	1.50	2.125	2.00	2.00	2.50	2.375	2.50	2.50	2.00	1.50	2.50	2.00	2.25	2.50	1.625	1.75	2.50	2.50
	1.625	1.875	1.75	2.00	1.875	1.625	1.50	1.875	2.50	1.625	1.75	1.50	1.875	2.25	2.375	2.125	2.375	2.00
	2.00	1.875	2.50	2.00	2.375	2.00	2.50	2.50	2.375	1.50	2.00	2.25	2.00	2.75	2.00	2.00	2.00	2.00
	1.875	1.50	2.00	2.375	1.625	1.625	2.00	2.00	2.375	2.75	2.375	2.375	2.00	2.50	2.50	2.125	1.50	1.875
	2.00	1.625	1.50	2.00	2.00	1.75	1.75	2.125	2.00	2.00	2.00	1.50	1.875	1.875	2.125	2.00	2.375	1.625
	2.00	2.00	2.00	1.625	2.00	2.00	1.50	2.25	1.50	1.75	2.125	2.125	2.00	2.375	2.00	2.25	2.25	2.00
	2.50	1.625	1.875	2.125	2.00	1.50	2.00	2.00	2.00	1.50	2.00	2.50	1.50	2.50	1.875	3.00	1.50	2.00
	2.00	2.00	2.00	2.00	2.00	1.875	1.625	1.50	1.50	1.625	1.75	2.00	1.875	2.50	3.25	2.50	2.25	2.00
	2.00	2.00	2.375	2.00	2.625	2.00	2.50	1.75	2.125	1.875	2.75	2.375	2.00	2.25	2.375	2.25	2.50	2.00
	2.50	2.125	1.75	2.125	1.625	1.625	1.875	1.875	2.00	1.625	2.625	1.625	1.75	2.00	2.50	2.00	2.00	2.00
	1.875	2.00	1.875	2.00	2.00	1.50	2.50	1.875	2.50	2.125	2.00	2.50	2.00	2.00	2.75	1.75	1.875	2.00
	1.75	2.00	1.875	2.375	1.875	2.00	1.75	2.00	1.75	1.875	2.00	1.75	1.625	2.50	3.50	2.25	2.00	2.125
	2.50	1.75	2.125	2.25	1.625	1.875	1.50	2.00	1.75	2.125	2.50	1.875	2.375	2.125	3.00	2.00	2.00	1.75
	2.00	2.00	2.00	1.875	1.625	1.625	1.625	2.00	2.875	2.25	1.875	1.625	2.00	2.125	2.375	3.00	1.875	1.875
	1.625	2.50	1.75	2.00	2.00	1.875	1.75	1.50	2.50	2.00	2.00	1.625	2.00	3.00	3.50	2.00	2.00	1.50
	1.50	1.875	1.875	1.50	2.00	1.375	1.50	2.50	2.00	1.50	2.125	2.50	2.375	2.75	2.00	1.75	2.50	2.375
	2.375	1.875	2.125	2.50	1.625	1.625	2.125	2.25	1.75	1.875	2.00	2.50	2.00	2.00	2.375	1.75	1.50	1.50
	1.875	2.125	2.375	2.00	1.75	1.50	1.875	1.75	2.50	2.00	1.875	2.00	2.375	2.50	3.50	2.25	3.00	2.00
	1.50	1.875	2.00	2.50	1.625	1.625	1.625	1.375	2.125	1.50	1.75	2.25	2.00	2.50	3.00	2.50	2.50	2.00
	2.00	1.50	1.75	2.00	1.875	1.50	2.375	2.125	2.375	2.00	2.50	2.375	1.875	2.75	4.00	1.375	2.00	1.75
	2.50	2.125	2.00	2.50	1.625	1.75	1.50	1.875	1.625	1.625	1.75	2.50	2.25	2.75	2.75	2.00	2.25	2.50
	1.875	1.875	2.125	2.00	2.875	1.875	2.00	1.875	2.00	1.375	1.625	1.875	2.00	2.50	2.50	2.00	1.50	2.25
	1.50	2.50	2.50	2.00	1.75	1.75	1.875	2.00	1.625	1.625	2.50	1.75	1.625	1.75	2.50	1.75	2.00	2.50
	2.50	2.125	1.875	3.25	2.375	2.50	1.75	2.00	3.50	1.50	1.870	1.375	1.875	1.875	3.00	2.50	1.875	2.00
	2.25	2.00	2.00	2.125	1.625	2.00	1.625	1.50	2.00	1.375	1.75	2.00	2.375	2.25	1.875	1.50	2.00	2.25
	1.875	2.50	1.875	2.25	1.625	2.00	1.625	1.50	1.75	1.50	1.75	1.625	1.875	2.00	1.875	2.00	1.75	2.25
	1.875	2.00	2.00	2.00	2.50	1.75	1.50	2.50	2.375	1.625	2.00	2.00	2.00	2.25	1.875	2.00	1.875	2.75
	1.625	1.50	2.125	2.00	1.50	1.625	2.00	1.75	1.625	1.875	2.50	1.875	2.00	2.00	1.875	2.25	2.625	1.875
	2.25	2.375	2.50	1.875	1.625	1.50	1.625	1.625	2.25	1.75	1.75	2.50	2.50	2.00	2.25	2.125	2.00	2.50
	1.50	2.50	2.00	2.75	2.00	1.125	2.00	2.00	2.50	1.50	2.00	1.625	1.875	2.25	2.50	2.00	2.00	2.50
	2.125	2.00	2.00	1.875	2.00	1.50	2.50	1.50	2.00	3.00	2.00	1.875	2.50	2.50	2.625	2.00	1.875	2.125
	2.375	2.00	1.50	1.875	1.50	2.00	1.625	1.625	2.00	2.00	3.00	1.75	2.125	2.50	2.25	2.25	2.25	2.50
	1.75	2.375	2.00	2.00	1.875	1.625	1.625	1.50	2.00	1.875	2.00	2.375	1.875	2.00	2.00	2.00	2.00	2.00
	2.00	1.75	2.00	1.75	1.875	1.50	1.50	1.50	2.375	1.625	2.00	2.00	2.125	2.125	2.50	1.50	3.00	2.50
	1.875	1.50	2.00	3.00	2.625	1.375	1.625	2.50	2.00	1.625	1.75	2.125	1.875	2.00	3.375	1.50	2.50	2.125
	2.00	1.375	2.00	2.50	1.875	1.375	2.125	2.00	1.50	2.25	2.00	2.25	1.875	2.25	2.75	2.50	2.50	2.125
	1.875	2.00	1.875	2.00	2.25	2.00	1.50	2.00	1.75	1.75	1.50	1.625	1.875	2.125	2.75	1.50	2.125	2.00
	1.875	2.125	1.875	1.875	2.125	1.375	1.75	1.75	2.00	1.625	1.75	1.75	2.00	2.00	2.875	1.875	2.25	2.50
	1.50	1.75	2.00	1.50	2.00	1.875	2.00	1.875	2.00	1.50	2.50	2.00	2.00	2.50	2.50	2.00	2.50	2.375
	1.50	2.50	2.50	2.125	1.75	1.25	1.50	1.625	1.625	1.125	1.50	1.875	1.625	2.50	1.875	1.75	1.50	2.00
	1.875	2.25	2.00	2.00	2.00	2.00	1.875	2.00	2.00	1.875	2.00	2.00	2.375	2.00	2.50	2.00	2.00	2.25
	2.25	1.75	1.50	2.125	2.50	1.625	2.00	2.00	2.25	1.625	1.625	2.00	2.00	2.50	2.50	1.75	2.25	2.00
	2.50	2.00	2.00	2.00	2.00	1.50	2.00	2.50	2.00	2.00	1.50	1.75	1.875	2.50	2.375	2.50	2.50	2.00
	2.00	2.00	1.75	1.75	1.75	1.75	2.50	2.00	2.125	1.625	1.625	2.375	2.00	2.75	2.50	2.00	2.25	1.50
	2.125	1.50	2.50	2.00	2.00	1.625	1.375	2.00	2.375	1.75	2.00	1.50	2.00	2.00	2.00	2.50	2.00	2.50
	2.25	1.75	1.50	2.50	1.875	2.50	1.50	2.625	1.50	2.00	1.75	1.625	2.50	2.00	2.375	1.625	2.75	2.00
	1.50	1.875	2.25	2.00	1.50	2.00	1.625	2.375	1.75	1.875	1.75	2.25	2.125	2.50	2.25	2.00	1.50	1.75
	2.00	2.125	1.875	2.125	1.50	1.875	1.875	2.00	2.00	1.375	1.50	2.00	1.875	2.25	2.125	2.625	1.50	2.875
	2.00	1.875	2.00	2.50	2.375	1.375	2.00	1.50	1.75	1.50	1.50	1.875	1.875	2.375	2.50	2.00	2.00	2.00
Totals	97.625	97.75	99.25	106.00	97.50	87.375	92.25	96.75	103.50	88.625	78.875	98.875	100.625	114.25	124.25	102.375	106.125	105.875

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and réduction:																		
Maximum measurements.	B′	2.50	0.9842	B′	3.25	1.2795	B′	2.50	0.9842	B′	3.00	1.1811	B′	2.50	0.9842	B′	3.00	1.1811
	B″	2.50	0.9842	B″	2.875	1.1318	B″	2.625	1.0334	B″	3.00	1.1811	B″	3.00	1.1811	B″	3.00	1.1811
	B‴	2.50	0.9842	B‴	2.50	0.9842	B‴	3.50	1.3779	B‴	2.50	0.9842	B‴	4.00	1.5748	B‴	2.875	1.1318
Highest.....	.....	2.50	0.9842	.....	3.25	1.2795	.....	3.50	1.3779	.....	3.00	1.1811	.....	4.00	1.5748	.....	3.00	1.1811
Minimum measurements.	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.375	0.5413	B′	1.125	0.4429	B′	1.50	0.5905	B′	1.375	0.5413
	B″	1.375	0.5413	B″	1.50	0.5905	B″	1.375	0.5413	B″	1.50	0.5905	B″	1.75	0.6889	B″	1.50	0.5905
	B‴	1.50	0.5905	B‴	1.125	0.4429	B‴	1.50	0.5905	B‴	1.375	0.5413	B‴	1.625	0.6397	B‴	1.50	0.5905
Lowest	.....	1.375	0.5413	.....	1.125	0.4429	.....	1.375	0.5413	.....	1.125	0.4429	.....	1.50	0.5905	.....	1.375	0.5413
Average measurements..	B′	1.953	0.7688	B′	2.12	0.8346	B′	1.845	0.7263	B′	1.773	0.6982	B′	2.013	0.7925	B′	2.048	0.8062
	B″	1.953	0.7696	B″	1.93	0.7677	B″	1.935	0.7618	B″	1.578	0.6212	B″	2.285	0.8996	B″	2.123	0.8358
	B‴	1.985	0.7814	B‴	1.748	0.6881	B‴	2.07	0.8149	B‴	1.978	0.7787	B‴	2.485	0.9783	B‴	2.118	0.8338
Average	.....	1.96	0.7716	.....	1.93	0.7598	.....	1.95	0.7677	.....	1.776	0.6992	.....	2.261	0.8901	.....	2.096	0.8251
Measurements above average..	.....	84		.....	77		.....	79		.....	85		.....	64		.....	62	
Measurements below average..	.....	66		.....	71		.....	71		.....	65		.....	[illegible]		.....	8[illegible]	

TABLE I.—*Measurements of fineness of wools*—Continued.

MINNESOTA.

RAMS, 2 TO 3 YEARS OLD.

Catalogue number of samples..	503.			504.			505.			[illegible]			507.			508.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.50	2.25	2.50	1.75	2.00	2.25	2.00	1.50	2.25	2.00	1.625	2.50	2.125	2.50	3.00	2.00	2.25	2.50
	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.75	2.50	2.00	2.75	2.625	2.00	2.00	2.50	2.50	2.00	2.00
	1.50	2.00	1.50	2.00	2.00	1.75	2.00	2.50	2.25	1.50	1.75	2.50	2.625	2.00	1.75	2.50	2.625	2.00
	2.00	1.50	2.00	2.25	1.75	2.00	2.25	2.50	2.00	2.25	2.75	2.00	2.625	2.25	2.75	1.75	2.375	2.00
	2.00	2.50	2.00	2.00	1.875	2.00	1.75	2.00	2.50	2.00	2.00	2.25	2.50	3.00	2.50	2.00	2.50	2.00
	2.00	2.375	2.25	2.50	2.00	2.00	1.50	1.375	2.25	1.50	2.00	2.00	1.75	2.50	2.25	2.125	2.50	2.00
	2.50	2.375	1.875	2.25	2.00	2.25	2.25	1.625	2.375	2.00	1.75	2.50	2.625	1.75	2.00	2.125	2.00	2.25
	2.50	2.50	2.50	2.00	1.625	2.00	3.00	2.50	2.00	2.50	2.00	2.50	2.75	2.50	2.125	2.375	2.00	2.00
	2.25	2.00	1.75	2.00	1.75	1.75	3.125	2.50	1.75	2.25	1.75	1.50	3.00	2.00	1.875	2.50	2.00	2.00
	2.00	2.25	2.75	2.00	2.25	2.00	3.00	2.25	1.50	2.50	2.25	2.25	2.50	1.875	2.125	2.00	2.00	2.00
	2.00	1.75	2.00	2.50	1.50	2.00	1.75	1.75	1.75	1.50	1.75	2.00	2.00	2.25	2.25	1.625	2.00	1.875
	1.50	1.875	1.50	2.00	1.625	2.00	2.00	2.00	2.00	2.00	1.75	2.375	2.125	2.50	2.25	1.875	3.00	2.00
	2.25	2.00	2.00	2.50	2.00	2.00	2.00	2.50	2.00	2.50	1.75	1.75	2.25	2.50	2.00	2.625	2.00	2.25
	2.25	2.25	1.50	2.00	2.00	2.50	2.50	2.00	2.00	2.00	2.00	1.875	1.50	2.50	2.00	2.00	2.00	2.25
	1.625	2.00	2.25	1.50	2.25	2.00	3.00	2.50	1.50	1.50	1.875	3.25	2.25	2.50	2.125	2.125	1.75	2.00
	2.00	2.50	1.50	1.50	2.25	2.00	3.25	3.00	1.625	2.00	1.75	1.75	2.75	2.00	2.75	2.00	2.00	2.00
	1.875	2.00	2.00	2.25	2.00	2.50	4.50	1.75	2.00	3.50	1.50	1.50	1.50	2.375	1.75	2.00	2.50	2.00
	2.00	2.00	2.25	2.50	1.75	1.875	2.00	2.50	2.25	2.00	2.00	1.75	2.00	2.00	1.75	2.125	2.25	2.25
	2.00	1.50	2.00	2.00	2.00	2.50	2.00	2.00	1.50	2.50	2.00	2.375	2.00	2.25	2.125	2.50	2.00	1.875
	1.625	2.00	1.50	2.00	2.00	2.00	1.875	2.25	2.00	1.50	1.75	3.50	1.75	2.00	2.00	1.75	2.00	2.50
	1.875	2.125	1.75	2.50	2.00	2.00	2.50	1.75	1.25	1.75	2.25	2.00	2.50	2.25	2.25	2.00	3.00	2.50
	1.75	2.00	1.875	2.00	2.00	1.75	2.00	2.00	1.625	2.00	2.25	2.00	2.50	2.00	1.75	2.00	2.50	2.00
	2.125	1.75	2.50	2.00	2.125	2.00	2.50	2.25	1.75	2.00	1.75	2.875	2.50	2.75	2.00	2.50	2.00	2.875
	1.50	1.75	2.25	2.25	2.50	2.00	3.50	3.50	2.50	2.75	2.00	2.00	2.25	2.00	2.00	3.00	2.375	1.875
	1.75	1.625	1.75	2.00	2.00	2.00	2.50	2.50	2.00	2.00	1.50	1.75	2.25	2.75	2.00	2.625	2.00	2.75
	1.50	1.75	2.50	2.00	3.25	1.75	2.25	2.25	2.50	2.00	1.50	1.875	2.00	3.00	2.25	2.00	2.00	2.00
	2.75	2.00	2.50	3.00	2.00	2.25	2.75	1.75	1.75	2.00	2.00	2.00	3.00	2.00	1.75	1.75	2.00	2.50
	2.00	1.50	2.00	2.00	1.75	2.50	2.50	2.25	2.25	2.00	1.75	1.75	2.625	2.00	2.125	2.125	1.50	2.125
	2.375	1.625	1.625	2.375	2.50	1.75	2.25	2.50	1.75	2.00	2.00	2.50	2.25	1.75	2.625	2.00	2.125	2.50
	2.00	2.00	2.50	2.625	2.00	2.00	2.00	2.00	1.75	2.00	2.00	2.00	2.125	2.50	2.00	2.00	2.00	2.25
	1.75	2.25	2.00	2.00	2.25	2.00	2.00	2.50	1.25	2.00	2.00	2.00	2.00	2.25	2.00	2.00	2.50	2.25
	2.00	1.75	2.00	2.50	2.00	2.00	2.50	2.25	2.00	2.25	2.00	2.00	2.00	2.25	2.375	1.75	2.50	2.50
	2.75	2.50	1.50	2.00	2.00	2.50	2.00	2.00	1.50	2.00	2.25	2.50	2.00	3.00	2.00	1.875	2.25	2.75
	2.125	2.50	1.75	2.25	1.75	1.75	2.75	2.25	2.00	1.75	1.75	2.00	2.00	2.75	2.00	1.50	2.50	2.25
	2.25	1.50	2.00	2.50	2.00	1.75	1.75	2.50	2.00	2.50	1.75	1.50	2.00	2.00	2.125	2.50	2.25	2.00
	2.00	2.00	1.50	2.25	1.875	2.00	2.50	1.625	2.00	2.00	1.75	2.00	1.75	2.00	2.50	2.50	1.75	1.75
	2.25	2.00	2.25	2.50	3.00	2.00	2.00	1.75	2.00	2.00	1.75	2.00	1.50	2.50	2.50	2.375	2.00	2.75
	2.00	2.25	2.25	2.00	2.50	2.00	1.75	1.625	1.50	1.50	1.50	2.375	2.50	2.00	2.00	2.125	2.00	2.00
	2.00	1.875	1.50	2.00	2.25	2.00	2.50	1.875	1.75	2.50	1.875	2.00	2.25	2.00	2.50	1.625	2.25	2.00
	2.00	1.625	2.33	2.00	2.25	1.75	2.50	1.75	2.00	2.25	2.00	2.50	2.25	2.00	1.50	1.625	2.00	2.50
	2.00	2.00	2.00	2.50	1.875	1.50	2.25	2.50	2.00	2.00	1.875	2.625	2.25	2.00	2.25	2.50	2.00	1.375
	2.25	2.00	2.00	2.00	2.00	2.00	1.75	1.75	2.00	2.00	2.00	1.50	1.75	2.25	1.875	2.50	3.00	2.00
	2.00	1.50	3.75	2.00	2.50	2.00	2.00	2.75	1.75	2.00	1.625	1.75	1.75	2.25	2.50	2.125	2.00	2.00
	2.00	2.125	2.00	2.50	2.50	2.50	2.00	2.00	1.875	2.50	2.00	1.625	2.00	2.00	2.875	2.50	2.125	1.625
	2.00	2.00	2.50	1.875	2.00	2.00	1.50	1.75	1.50	2.00	1.875	2.375	2.00	2.50	2.125	2.125	2.00	2.50
	1.50	2.25	1.75	2.00	2.75	1.75	2.75	2.38	2.25	2.00	1.625	2.25	2.25	2.00	2.00	2.00	2.125	2.50
	2.00	2.00	2.00	1.75	2.375	2.00	3.50	2.38	1.75	2.50	2.00	2.00	1.75	2.25	2.25	2.00	2.00	2.00
	1.75	1.50	2.00	2.00	2.00	1.50	3.00	2.00	2.50	2.50	2.00	2.00	1.75	2.125	2.50	2.50	2.125	2.50
	3.00	2.00	2.125	3.00	1.50	2.50	2.25	2.00	1.75	2.25	1.75	2.00	2.00	2.25	2.625	1.625	2.00	2.625
	1.50	2.00	2.00	2.00	2.50	1.75	2.50	2.25	2.00	2.00	1.50	2.50	2.00	2.25	2.00	2.00	2.125	2.125
Totals	101.125	98.875	102.50	107.125	104.875	100.625	119.25	107.375	96.25	103.50	94.625	107.50	108.875	113.625	110.625	106.25	110.25	109.625

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	3.00	1.1811	B′	3.00	1.1811	B′	4.50	1.7716	B′	2.75	1.0826	B′	3.00	1.1811	B′	2.625	1.0334
	B″	2.50	0.9842	B″	3.25	1.2795	B″	3.50	1.3779	B″	2.75	1.0826	B″	3.00	1.1811	B″	3.00	1.1811
	B‴	3.75	1.4763	B‴	2.50	0.9842	B‴	2.50	0.9842	B‴	3.50	1.3779	B‴	3.00	1.1811	B‴	2.75	1.0826
Highest		3.75	1.4763		3.25	1.2795		4.50	1.7716		3.50	1.3779		3.00	1.1811		3.00	1.1811
Minimum measurements.	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.50	0.5905
	B″	1.50	0.5905	B″	1.50	0.5905	B″	1.375	0.5413	B″	1.50	0.5905	B″	1.50	0.5905	B″	1.50	0.5905
	B‴	1.50	0.5905	B‴	1.50	0.5905	B‴	1.25	0.4921	B‴	1.50	0.5905	B‴	1.75	0.6889	B‴	1.375	0.5413
Lowest		1.50	0.5905		1.50	0.5905		1.25	0.4921		1.50	0.5905		1.50	0.5905		1.375	0.5413
Average measurements..	B′	2.025	0.7972	B′	2.143	0.8436	B′	2.393	0.9389	B′	2.07	0.8149	B′	2.178	0.8574	B′	2.125	0.8366
	B″	1.978	0.7787	B″	2.098	0.8259	B″	2.148	0.8456	B″	1.893	0.7452	B″	2.273	0.8948	B″	2.205	0.8681
	B‴	2.05	0.8070	B‴	2.013	0.7925	B‴	1.928	0.7578	B″	2.15	0.8464	B‴	2.213	0.8712	B‴	2.193	0.8632
Average		2.017	0.7940		2.127	0.8373		2.152	0.8472		2.037	0.8019		2.22	0.8740		2.174	0.8559
Measurements above average..			44			48			57			43			75			62
Measurements below average..			100			102			83			107			75			88

TABLE I.—*Measurements of fineness of wools*—Continued.

	MINNESOTA.																	
	RAMS, 2 TO 3 YEARS OLD.																	
Catalogue number of samples..	509.			510.			511.			512.			513.			514.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.00	2.25	2.25	2.00	1.75	1.50	2.00	2.50	2.50	2.00	1.875	2.125	2.00	2.25	1.875	1.625	3.50	1.625
	2.00	2.125	1.75	2.50	2.00	2.00	2.25	2.75	3.25	1.50	2.50	2.00	2.75	2.00	2.00	2.50	2.00	1.75
	2.00	1.50	1.375	2.25	2.00	1.875	2.00	1.875	3.625	2.25	1.50	1.75	2.375	2.50	2.25	2.25	2.50	2.00
	1.875	2.00	1.875	2.00	2.00	2.50	2.00	2.00	3.00	2.00	2.125	1.625	2.375	2.375	2.125	2.00	3.00	1.50
	2.00	1.875	2.50	2.25	1.625	2.00	2.00	2.00	2.50	2.00	1.75	1.75	2.00	2.25	2.00	1.875	2.00	2.00
	2.25	2.25	1.75	1.50	2.375	2.00	2.50	2.00	2.50	1.875	2.50	2.00	2.25	2.125	2.125	2.50	1.75	2.00
	2.00	2.125	2.00	2.00	1.875	2.00	2.00	4.00	3.00	2.125	1.50	2.00	2.75	2.00	1.875	2.375	2.375	2.75
	1.50	2.00	2.375	2.375	2.00	2.125	2.00	2.00	2.50	2.25	2.00	1.75	3.00	1.75	2.00	1.875	2.50	2.50
	1.625	2.00	2.00	1.875	2.75	2.25	2.00	2.25	2.875	2.50	2.625	3.75	2.25	2.00	2.50	2.125	1.75	2.00
	2.00	1.375	2.00	2.00	2.25	2.00	2.00	2.50	2.00	2.50	2.375	1.50	1.875	2.125	2.25	2.25	2.00	2.125
	2.00	2.00	2.00	2.125	2.375	2.00	3.50	4.00	2.625	2.125	2.25	1.625	2.25	1.75	2.375	2.00	3.50	2.375
	2.00	2.00	1.875	1.875	2.00	1.50	2.50	2.50	2.00	2.375	2.00	1.50	2.50	2.50	2.125	2.625	2.00	1.75
	1.75	2.125	1.75	2.625	2.375	2.125	3.625	1.625	2.00	2.25	2.25	2.00	1.75	2.50	1.50	2.375	1.50	2.00
	1.75	2.00	1.875	2.25	1.50	2.50	2.875	2.00	3.25	2.375	2.00	2.25	2.125	2.50	2.25	2.125	3.25	2.125
	2.00	2.25	2.00	1.625	2.00	2.25	2.125	2.375	2.50	2.25	1.875	1.75	2.25	2.25	1.875	2.25	2.00	1.875
	1.625	1.875	1.50	2.00	2.125	2.00	1.875	3.50	3.00	2.50	1.75	2.00	2.50	2.375	2.00	2.625	2.00	1.75
	2.00	2.125	2.375	2.00	2.125	2.125	3.00	2.25	2.00	3.25	2.00	2.375	2.50	2.25	2.00	2.00	1.75	2.00
	2.125	1.625	1.875	3.00	2.00	2.00	1.875	2.50	2.00	1.50	1.50	1.875	2.25	2.25	2.375	2.50	1.75	1.75
	1.75	2.00	2.00	2.00	2.50	1.875	2.125	2.50	1.875	2.00	1.50	1.75	2.125	1.75	1.375	1.75	2.00	2.00
	2.00	2.125	1.875	3.50	2.50	1.625	2.00	2.125	3.625	2.00	1.25	2.50	2.875	2.50	2.00	1.875	2.00	1.75
	2.25	1.75	2.00	2.375	2.25	2.375	2.125	2.00	2.875	2.00	2.00	3.00	1.875	2.375	2.50	1.75	2.125	2.00
	2.875	2.00	1.50	2.50	2.125	3.00	1.875	3.125	2.50	1.50	2.375	2.25	1.875	2.50	2.375	3.125	1.875	1.75
	1.75	2.00	2.00	1.625	2.00	2.50	2.50	3.875	2.00	2.125	2.25	2.00	2.25	1.75	1.625	3.00	2.25	2.00
	1.50	1.875	1.75	1.875	2.625	2.125	3.125	2.625	2.625	2.75	2.375	1.75	2.25	2.375	2.00	2.25	2.75	1.75
	2.00	2.50	2.00	2.50	2.50	2.25	2.00	2.00	2.75	1.50	2.375	1.875	2.75	2.375	2.00	2.375	1.625	1.875
	2.00	1.875	1.875	2.00	2.50	2.50	3.125	2.25	3.00	1.50	2.50	1.875	2.00	2.25	2.125	1.25	1.75	1.75
	1.75	1.75	2.00	2.50	2.00	1.875	1.75	2.25	3.00	1.50	2.25	2.00	1.50	1.50	2.125	1.375	1.75	2.00
	1.75	2.00	1.875	2.125	2.125	2.50	2.50	2.50	2.00	1.625	2.50	2.125	1.875	2.50	2.25	2.00	2.00	1.50
	1.875	1.75	1.625	2.25	2.00	2.75	1.75	1.875	3.25	2.00	2.25	2.00	3.00	2.50	1.75	2.00	2.50	1.50
	1.75	1.875	2.375	2.50	2.25	2.125	2.25	2.00	3.00	1.375	2.125	1.875	2.75	1.75	1.875	2.50	2.25	1.625
	2.50	1.50	2.50	2.375	2.00	2.25	2.75	2.00	3.00	2.00	2.00	1.875	2.375	2.00	3.375	1.375	2.00	1.75
	1.75	1.50	2.00	2.25	2.50	2.00	1.875	2.25	2.25	2.00	2.75	3.75	2.50	3.25	2.00	1.375	2.00	1.375
	2.00	1.50	1.875	1.875	1.75	2.50	3.00	2.50	2.375	1.625	4.00	3.50	2.50	1.50	2.25	2.125	2.125	1.50
	2.375	1.75	2.00	2.625	2.00	2.50	2.375	2.00	1.875	1.50	1.50	1.875	2.25	2.25	1.50	2.50	1.875	1.875
	2.50	2.00	2.375	2.25	2.00	1.875	2.00	2.25	1.625	1.00	2.50	2.00	2.50	2.00	1.50	2.25	2.25	2.00
	2.25	1.875	2.125	1.75	2.50	2.00	2.25	2.25	2.125	1.50	2.375	2.00	2.00	1.50	1.50	2.00	2.00	2.00
	1.75	2.00	1.75	1.75	1.875	1.875	3.375	2.75	1.75	1.875	2.25	2.125	2.25	2.00	2.00	1.75	2.00	2.25
	2.00	2.00	2.00	2.00	1.50	2.375	2.625	2.00	2.00	2.00	2.50	2.25	1.50	2.375	2.50	2.00	1.875	2.00
	1.75	2.125	2.125	1.875	2.25	2.125	1.50	2.75	2.125	1.50	2.375	2.00	2.125	2.50	2.625	2.25	2.00	1.75
	1.375	1.50	2.00	2.125	2.125	2.50	2.125	2.00	2.00	1.25	2.25	2.00	2.625	1.75	2.00	2.00	2.00	2.375
	2.00	1.75	2.00	2.25	1.625	1.875	2.375	2.50	1.625	2.00	2.50	2.25	2.00	3.50	2.50	1.625	1.875	2.25
	2.25	2.00	1.75	1.75	2.00	1.875	3.00	3.00	1.875	1.50	2.50	1.625	1.875	2.00	2.875	1.50	2.125	1.75
	2.125	1.75	1.625	2.50	2.00	1.875	1.875	2.25	2.00	2.00	2.625	1.75	1.50	2.00	2.375	2.25	2.125	2.25
	1.875	2.00	1.625	2.25	2.125	2.125	2.75	3.00	2.25	1.75	3.25	1.50	1.50	2.25	2.00	2.25	2.25	1.75
	2.00	1.875	2.00	3.00	2.00	1.875	2.50	2.75	3.00	1.75	1.375	1.875	2.25	2.125	2.00	2.00	1.75	2.00
	1.50	2.00	1.75	1.875	1.375	2.50	1.50	1.625	1.625	2.125	1.50	1.75	2.25	1.875	1.75	2.375	1.75	
	1.50	2.00	1.75	1.875	2.375	2.00	2.50	2.50	2.50	1.50	2.25	1.625	2.00	2.375	1.50	2.25	1.75	2.25
	2.125	2.125	1.875	1.75	1.875	2.125	2.50	1.875	2.50	2.00	1.75	1.50	2.25	1.00	2.00	2.375	1.50	2.00
	1.875	2.25	2.00	2.50	2.50	2.00	2.25	2.50	4.00	2.00	2.25	3.375	2.125	2.50	1.75	2.125	2.875	2.375
	1.875	1.875	1.50	2.00	2.00	2.50	3.00	2.625	2.50	1.75	3.75	1.375	2.00	2.50	1.75	2.25	2.50	1.75
Totals	99.125	96.375	96.625	108.625	104.875	107.00	117.375	120.125	124.625	96.25	110.375	102.625	111.25	111.50	103.375	105.625	107.245	96.40

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.875	1.1318		3.50	1.3779	B′	3.625	1.4271	B′	3.25	1.2795	B′	3.00	1.7811	B′	3.125	1.2303
	B″	2.50	0.9842	B′	2.75	1.0826	B″	4.00	1.5748	B″	4.00	1.5748	B″	3.50	1.3779	B″	3.50	1.3779
	B‴	2.50	0.9842	B″	3.00	1.1811	B‴	4.00	1.5748	B‴	3.75	1.4763	B‴	3.375	1.3287	B‴	2.75	1.0826
				B‴														
Highest.....	.....	2.875	1.1318	.....	3.50	1.3779	.....	4.00	1.5748	.....	4.00	1.5748	.....	3.50	1,3779	.....	3.50	1.3779
Minimum measurements.	B′	1.375	0.5413	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.00	0.3937	B′	1.50	0.5905	B′	1.25	0.4921
	B″	1.375	0.5413	B″	1.375	0.5413	B″	1.625	0.6397	B″	1.25	0.4921	B″	1.00	0.3937	B″	1.50	0.5905
	B‴	1.375	0.5413	B‴	1.50	0 5905	B‴	1.625	0.6397	B‴	1.50	0.5905	B‴	1.375	0.5413	B‴	1.375	0.5413
Lowest	.....	1.375	0.5413	.....	1.375	0.5413	.....	1.50	0.5905	.....	1.00	0.3937	.....	1.00	0.3937	.....	1.25	0.4921
Average measurements..	B′	1.983	0.7077	B′	2.17	0.8543	B′	2.34	0.9212	B′	1.925	0.7578	B′	2.23	0.8779	B′	2.112	0.8314
	B″	1.928	0.7586	B″	2.097	0.8255	B″	2.40	0.9448	B″	2.207	0.8688	B″	2.23	0.8779	B″	2.144	0.8440
	B‴	1.933	0.7598	B‴	2.14	0.8425	B‴	2.49	0.9803	B‴	2.052	0.8078	B‴	2.067	0.8137	B‴	1.928	0.7590
Average	.....	1.948	0.7666	.....	2.14	0.8425	.....	2.41	0.9488	.....	2.06	0.8110	.....	2.18	0.8582	.....	2.061	0.8114
Measurements above average..	.....	83		.....	75		.....	71		.....	60		.....	74		.....	68	
Measurements below average..	.....	67		.....	75		.....	79		.....	90		.....	76		.....	92	

TABLE I.—*Measurements of fineness of wools*—Continued.

MINNESOTA.

RAMS, 2 TO 3 YEARS OLD.

Catalogue number of samples	515.			516.			517.			518.			519.			520.		
Number of section	B′	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.50	1.25	1.875	3.00	1.50	2.00	2.50	1.50	1.50	2.375	3.25	3.00	2.25	2.25	2.50	1.625	2.75	2.00
	3.00	1.875	1.75	2.50	1.50	2.50	1.875	2.50	1.50	2.25	3.375	2.50	3.00	3.00	2.00	1.75	2.50	1.50
	2.25	2.125	1.50	2.25	1.25	1.75	1.625	2.50	1.50	2.125	2.75	2.25	2.125	1.625	2.00	2.00	2.125	1.50
	1.875	2.25	2.00	2.375	2.00	1.50	1.75	2.00	1.875	1.75	2.75	2.375	2.25	2.00	2.125	1.50	2.50	2.00
	2.50	2.00	2.00	2.00	2.25	1.50	1.875	2.75	2.25	1.50	2.50	2.00	2.50	1.75	1.75	1.50	2.50	1.00
	2.75	1.25	1.50	2.00	2.00	1.50	2.00	2.00	1.75	1.50	2.00	2.125	2.50	1.625	1.75	2.00	2.75	1.25
	2.00	2.25	2.25	2.125	1.75	1.75	2.00	2.375	2.00	1.375	2.50	2.25	2.75	1.875	1.75	2.50	1.625	1.50
	2.125	2.50	2.25	2.25	1.25	1.625	2.25	1.50	3.125	1.625	2.25	1.75	2.125	2.00	1.75	3.00	2.75	1.625
	1.875	2.00	1.75	2.875	2.00	1.50	1.75	1.625	2.00	1.50	3.00	1.875	2.50	1.50	1.50	1.625	2.50	2.50
	1.875	2.00	1.625	2.25	1.75	2.00	2.25	2.125	1.50	2.25	1.875	1.75	2.00	2.125	2.25	2.00	1.50	2.00
	2.25	1.75	2.00	2.00	1.50	1.875	2.375	1.50	2.25	2.25	3.00	2.00	1.75	2.25	2.50	1.75	2.375	1.75
	2.375	1.875	1.50	2.125	1.50	3.00	2.00	2.50	2.25	2.375	2.25	1.875	1.875	2.00	2.375	1.50	2.00	2.00
	1.75	2.50	1.75	2.00	1.375	1.50	2.125	2.625	1.50	2.875	2.75	2.00	1.875	3.00	2.125	2.00	2.50	1.50
	2.50	2.25	2.00	2.00	2.125	2.50	1.75	2.875	2.375	2.25	2.375	2.375	1.75	1.875	1.50	2.00	2.00	1.50
	2.375	1.750	2.375	2.125	2.00	2.00	1.75	2.75	2.25	2.375	3.00	2.00	2.00	1.875	3.00	2.00	2.00	1.75
	2.25	2.00	2.00	1.875	2.00	1.75	1.875	1.875	2.375	2.00	1.875	2.00	2.25	2.375	2.25	1.50	2.00	2.00
	2.00	2.00	2.00	2.00	1.625	1.50	1.50	1.50	1.50	1.75	3.00	2.125	1.625	2.375	2.00	1.50	2.00	2.00
	1.75	1.50	1.75	2.25	1.50	1.50	1.50	2.00	1.50	1.875	2.00	2.25	2.00	2.25	2.375	1.50	2.00	1.50
	1.50	2.75	1.875	2.50	3.00	2.00	1.625	2.625	1.625	2.00	1.75	2.375	1.75	2.375	1.625	2.00	2.25	1.50
	1.75	2.00	1.75	2.75	1.25	2.75	1.625	2.125	1.50	2.00	2.375	1.875	2.25	2.50	1.75	1.75	2.125	1.75
	2.25	1.875	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.25	1.50	2.00	1.625	1.875	1.875	1.50	2.00	2.00
	2.375	1.25	2.00	2.125	2.00	2.75	2.00	2.00	2.25	1.75	2.00	2.00	2.50	2.25	1.875	1.25	2.50	2.00
	1.75	1.75	2.125	2.00	2.00	2.00	2.00	2.25	2.00	2.00	3.125	2.125	2.25	1.50	1.75	1.00	2.125	2.00
	2.00	2.00	2.00	2.50	1.875	2.25	1.50	1.625	2.125	1.50	1.50	2.75	2.125	1.75	2.25	1.25	1.50	2.00
	2.00	2.50	2.00	2.25	2.125	2.375	1.75	2.75	1.75	1.50	2.00	2.75	1.75	1.875	2.50	1.50	2.00	2.125
	1.50	2.00	2.75	2.125	1.50	1.50	1.50	2.375	2.00	2.00	2.25	1.75	2.25	2.00	2.00	1.50	2.00	2.50
	2.00	2.00	2.00	2.25	1.50	1.75	1.75	1.75	1.75	1.375	1.50	1.25	2.125	1.50	2.00	1.00	2.00	1.875
	2.375	1.50	2.25	2.50	2.25	2.125	1.50	2.00	2.00	1.50	2.50	1.25	2.00	2.00	2.00	1.50	2.25	1.50
	2.00	2.00	1.875	2.00	2.50	2.00	1.50	2.00	2.00	1.50	1.50	1.50	2.25	1.50	2.25	1.75	2.00	1.75
	2.125	2.00	1.875	2.00	2.25	2.25	1.75	2.25	1.875	1.75	1.375	2.25	2.375	2.75	2.125	1.50	2.25	1.875
	1.875	2.75	2.25	2.00	2.00	1.50	1.50	1.50	1.625	2.25	2.00	2.375	2.00	2.125	1.50	1.625	2.125	2.00
	1.75	2.00	2.375	2.50	2.50	1.625	1.75	1.50	2.50	2.25	1.50	2.00	2.25	2.00	1.50	1.25	1.75	2.00
	2.50	2.00	2.00	2.625	1.50	2.00	2.00	2.00	2.50	1.875	2.125	1.50	2.25	2.00	2.00	1.50	2.125	1.50
	2.00	1.875	2.25	2.00	1.25	2.25	2.25	1.875	2.625	3.00	2.00	2.00	2.00	1.75	2.125	2.50	2.25	1.75
	2.375	2.875	1.875	2.25	2.25	1.50	2.75	1.875	1.75	3.125	1.25	2.00	4.25	2.25	1.75	2.00	1.875	1.50
	2.25	1.375	1.75	1.50	1.375	1.75	2.875	2.25	2.125	2.50	1.625	2.125	2.375	1.50	1.625	1.75	1.75	1.50
	1.50	2.50	1.875	2.375	3.25	2.75	2.625	1.875	2.00	1.50	2.00	2.00	2.00	2.00	1.875	2.00	1.875	2.50
	1.50	1.75	2.125	2.75	2.00	2.00	2.50	2.50	2.50	1.50	2.25	1.75	2.00	2.50	2.50	2.00	2.00	3.00
	1.625	1.625	2.25	2.50	1.00	2.25	2.00	2.25	1.50	1.75	1.50	1.50	2.25	2.375	2.125	1.75	1.875	2.00
	1.75	1.75	2.00	2.00	1.375	1.875	2.125	1.75	1.625	1.125	2.75	1.75	2.00	2.00	1.75	2.00	2.00	1.50
	1.625	3.50	2.00	2.875	1.75	2.50	1.50	2.50	1.75	1.25	2.75	2.50	2.00	1.75	1.875	1.25	2.00	1.50
	2.25	2.50	2.25	2.25	2.25	2.25	1.50	2.25	1.50	3.00	2.00	2.125	1.875	1.875	2.00	1.50	2.00	2.50
	2.25	3.00	1.875	2.375	3.375	2.50	1.875	4.50	1.75	1.50	2.00	2.50	1.75	1.50	2.50	1.75	2.00	2.50
	2.375	3.25	2.25	2.50	1.50	2.625	2.00	2.25	2.00	1.50	1.75	2.25	2.50	2.00	2.00	2.00	2.50	2.50
	2.50	2.375	1.75	2.50	2.125	1.75	2.25	2.50	1.75	1.50	2.00	2.125	1.75	2.125	2.00	1.625	2.00	2.50
	2.125	2.25	2.50	1.75	2.25	1.50	1.50	1.75	2.00	1.50	1.75	2.50	2.00	2.25	2.25	2.00	2.00	2.25
	1.50	2.00	2.25	1.875	2.00	1.625	2.125	2.125	2.00	1.625	1.50	2.00	2.00	2.375	2.125	1.625	2.00	2.00
	2.50	1.875	2.00	1.50	2.125	2.00	1.875	1.875	1.75	2.375	1.50	2.50	1.875	2.00	1.875	2.00	2.25	2.25
	2.25	1.75	1.75	1.50	1.50	1.75	2.00	2.375	1.625	2.00	1.50	2.25	2.00	1.875	1.75	1.00	1.75	2.25
	2.00	2.00	1.50	2.00	1.625	1.875	1.75	2.625	1.50	1.875	1.75	1.75	2.25	2.00	2.00	1.125	2.00	2.00
Totals	107.375	106.500	101.75	118.625	95.750	99.625	85.00	107.00	94.25	97.125	108.875	104.375	104.75	103.375	101.625	82.50	105.00	95.25

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements	B′	3.00	1.1811	B′	3.75	1.4763	B′	2.875	1.1318	B′	3.25	1.2795	B′	2.75	1.0826	B′	3.00	1.1811
	B″	3.75	1.4763	B″	3.375	1.3287	B″	4.50	1.7716	B″	3.50	1.3779	B″	2.75	1.0826	B″	2.75	1.0826
	B‴	3.00	1.1811	B‴	3.00	1.1811	B‴	2.625	1.0334	B‴	3.00	1.1811	B‴	2.00	1.1811	B‴	3.00	1.1811
Highest		3.75	1.4763		3.75	1.4763		4.50	1.7716		3.50	1.3779		3.00	1.1811		3.00	1.1811
Minimum measurements	B′	1.375	0.5413	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.125	0.4429	B′	1.625	0.6397	B′	1.00	0.3937
	B″	1.25	0.4921	B″	1.00	0.3937	B″	1.50	0.5905	B″	1.375	0.5413	B″	1.50	0.5905	B″	1.50	0.5905
	B‴	1.50	0.5905	B‴	1.25	0.5905	B‴	1.50	0.5905	B‴	1.25	0.4921	B‴	1.50	0.5905	B‴	1.00	0.3937
Lowest		1.25	0.4921		1.00	0.3937		1.50	0.5905		1.125	0.4429		1.50	0.5905		1.00	0.3937
Average measurements	B′	2.147	0.8452	B′	2.372	0.9338	B′	1.70	0.6692	B′	1.942	0.7645	B′	2.095	0.8248	B′	1.65	0.6496
	B″	2.13	0.8385	B″	1.915	0.7539	B″	2.14	0.8267	B″	2.178	0.8574	B″	2.008	0.7905	B′	2.100	0.8267
	B‴	2.035	0.8011	B‴	1.992	0.7842	B‴	1.885	0.7421	B‴	2.087	0.8216	B″	2.073	0.8160	B‴	1.905	0.7499
Average		2.104	0.8283		2.093	0.8240		1.908	0.7511		2.069	0.8145		2.045	0.8051		1.851	0.7592
Measurements above average			67			71			52			65			100			90
Measurements below average			83			79			97			85			50			60

TABLE I.—*Measurements of fineness of wools*—Continued.

	MINNESOTA.																	
	RAMS, 2 TO 3 YEARS OLD.	EWES, 2 TO 3 YEARS OLD.																
Catalogue number of samples..	521.	482.			483.			484.			485.			486.				
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.25	2.125	1.50	2.00	2.00	2.375	1.625	2.125	2.00	1.625	1.50	2.125	2.00	2.00	2.25	2.00	2.25	2.00
	1.50	2.00	2.25	1.50	2.50	1.875	1.625	2.00	2.125	1.625	2.00	1.75	1.875	2.00	1.875	2.50	1.75	2.125
	1.50	2.25	2.00	2.125	1.50	2.125	2.50	2.125	2.75	1.50	1.75	2.50	1.625	1.50	1.625	1.875	2.25	2.625
	1.75	1.50	1.25	1.50	2.125	1.625	1.75	2.25	2.00	2.00	1.50	1.875	1.50	1.625	2.00	1.875	2.00	2.00
	2.50	2.125	1.50	2.00	2.50	2.50	2.00	2.00	2.00	1.875	1.75	2.50	1.75	2.125	2.00	2.00	2.00	2.125
	1.50	2.625	2.00	1.875	1.25	1.125	1.75	2.25	2.00	1.75	1.75	2.50	2.00	1.50	2.00	2.25	1.75	1.75
	2.00	2.75	1.50	3.00	2.00	2.00	1.50	2.50	2.125	2.00	2.125	1.875	1.875	2.00	2.375	1.625	2.25	2.50
	1.25	2.00	1.50	2.50	2.00	2.00	2.00	2.00	2.50	1.875	2.00	1.50	3.00	2.125	1.75	1.75	2.00	2.25
	1.75	1.75	1.75	1.875	1.50	2.50	1.875	2.125	2.00	2.00	2.00	2.00	2.00	2.125	1.875	1.25	2.50	2.50
	2.00	1.50	1.50	1.75	2.50	2.875	1.50	3.00	2.125	1.75	1.875	2.00	1.375	1.625	1.75	2.375	2.00	2.00
	1.75	2.50	1.75	1.25	1.75	2.00	1.75	1.625	2.00	2.00	2.00	2.00	1.375	1.50	2.25	2.00	1.75	1.50
	2.00	1.625	2.00	1.75	2.50	2.375	2.00	2.00	2.375	2.00	2.375	2.00	1.75	1.375	2.125	2.125	2.00	2.00
	2.00	1.50	1.50	1.875	2.25	1.875	1.875	1.75	1.75	2.125	2.50	3.00	1.50	1.125	1.75	2.25	2.25	2.50
	1.50	2.00	1.625	1.625	2.625	2.00	1.75	1.875	1.875	2.00	2.50	1.375	2.00	2.50	1.875	1.875	2.50	2.50
	1.625	2.00	2.00	2.25	1.50	2.125	1.875	2.50	2.50	1.75	2.50	2.125	2.50	2.50	1.875	2.00	2.00	1.625
	2.00	2.00	1.50	1.875	2.50	1.50	1.75	1.875	2.00	1.50	1.50	2.25	1.875	2.75	2.25	2.00	2.50	2.00
	2.50	1.50	1.75	2.00	2.25	2.50	1.875	2.50	1.875	1.75	1.75	2.00	2.875	1.625	3.125	2.00	2.00	2.50
	1.50	2.00	1.75	1.875	2.00	2.25	1.50	2.00	2.875	2.00	2.125	2.00	1.875	2.25	3.00	2.125	1.50	2.00
	2.25	2.50	2.50	1.625	2.375	1.875	1.625	1.75	2.00	2.50	2.00	2.125	2.00	2.00	1.50	2.375	1.50	2.125
	1.50	2.00	2.50	2.00	1.75	1.625	1.625	2.00	2.00	2.125	1.625	2.375	1.625	1.75	2.125	2.00	1.50	2.50
	2.25	2.00	1.25	1.75	1.875	1.50	2.375	2.00	2.00	2.375	2.25	1.625	1.50	2.125	2.00	1.875	2.00	2.00
	2.125	2.00	1.375	1.50	1.50	1.75	1.625	1.875	2.00	2.00	2.125	2.25	1.50	2.00	1.50	1.875	2.50	2.00
	2.00	2.00	2.00	2.00	1.875	2.875	2.375	2.25	2.00	2.25	2.25	2.00	1.625	1.50	2.125	2.00	2.00	1.875
	1.50	2.50	1.75	2.375	1.75	2.50	2.50	2.00	2.00	2.125	1.75	1.625	2.00	1.875	1.625	2.25	1.50	2.00
	2.00	2.50	1.625	1.50	2.625	2.125	1.50	1.875	2.00	1.75	1.75	1.50	2.00	1.625	2.00	1.875	2.00	1.75
	1.50	3.25	2.00	2.25	2.625	2.375	1.875	2.125	3.00	2.00	2.00	1.75	2.125	1.625	1.50	2.125	2.00	1.375
	1.625	3.25	2.25	2.25	2.50	2.75	2.375	1.875	2.50	2.25	2.00	2.375	1.875	2.25	1.625	1.625	1.50	2.00
	1.50	2.00	1.75	2.00	1.75	2.625	1.625	2.125	2.00	2.125	2.00	3.00	2.00	1.875	2.375	1.625	1.50	2.00
	1.50	2.00	1.50	1.375	2.50	1.50	1.625	1.75	2.00	2.125	2.00	1.50	1.625	1.50	1.875	2.00	2.50	2.50
	2.50	1.875	1.50	1.75	2.25	1.875	2.50	2.00	3.00	2.125	2.00	2.375	1.75	2.00	1.75	1.625	2.50	2.50
	2.00	1.50	2.00	1.875	1.875	2.00	1.625	1.875	3.50	1.50	1.75	2.00	2.375	2.00	1.50	1.625	2.00	2.00
	1.50	1.75	1.875	2.00	1.875	2.375	1.625	1.75	2.00	1.50	1.75	1.875	1.625	1.625	1.75	1.50	2.75	2.125
	2.50	2.00	1.75	2.125	1.875	1.875	1.50	2.00	1.175	2.125	1.75	1.50	2.00	2.00	1.625	1.75	2.75	2.125
	2.00	2.00	1.625	1.875	2.375	1.75	1.50	2.00	2.25	2.00	2.00	2.50	2.00	1.75	2.375	1.375	2.50	1.875
	1.25	2.125	2.25	1.375	2.50	2.125	1.875	2.25	2.00	3.00	1.625	2.625	2.125	2.125	1.875	1.375	2.50	2.125
	1.75	2.50	2.00	2.00	2.625	2.00	2.875	2.00	2.00	2.50	2.00	1.375	1.875	2.375	2.375	1.875	2.00	2.125
	2.00	1.875	2.00	1.25	1.75	1.50	2.00	1.50	1.625	2.125	2.00	2.00	2.375	1.875	2.00	1.50	2.00	1.75
	1.50	2.00	2.50	2.375	2.50	2.75	1.875	1.75	2.125	2.625	2.50	1.00	1.875	2.125	2.50	1.25	2.00	2.00
	2.50	1.625	1.50	2.00	1.625	1.625	2.375	2.00	1.50	3.00	1.50	1.75	1.875	1.625	1.75	2.375	2.00	2.125
	2.50	2.00	1.625	2.00	2.25	2.00	1.875	1.75	2.50	2.50	1.625	2.125	1.50	2.00	2.875	2.125	2.00	2.25
	1.75	2.125	2.00	1.375	2.75	2.00	2.00	1.875	1.75	2.00	2.00	2.125	1.50	2.00	1.875	1.75	2.00	2.50
	1.875	2.125	1.50	3.25	2.50	1.625	1.875	1.875	2.625	2.25	2.375	2.125	1.875	1.875	1.50	1.875	3.00	2.375
	1.50	1.625	1.25	2.125	2.125	2.625	2.00	1.625	1.75	2.125	1.50	1.875	1.75	2.00	2.875	1.875	2.00	1.75
	1.375	1.75	1.50	1.50	2.25	2.00	1.75	1.75	1.50	2.25	1.625	1.75	1.875	1.875	2.00	2.00	2.00	2.50
	2.00	1.875	1.50	2.00	2.50	2.25	2.125	1.75	2.375	1.75	1.875	1.75	2.375	1.875	2.375	2.25	2.50	2.25
	1.25	1.75	1.625	1.50	2.50	2.00	1.625	1.875	2.375	2.00	2.00	1.75	1.875	2.00	1.50	1.375	1.50	1.625
	2.00	3.00	2.125	2.00	2.00	2.00	2.00	2.00	2.125	1.50	1.50	1.875	2.25	1.875	2.00	1.875	2.00	1.75
	1.25	1.625	2.25	2.00	2.00	2.00	1.75	2.00	2.00	2.125	1.625	1.875	2.375	1.875	2.00	2.125	2.25	2.00
	1.50	2.00	1.50	3.125	2.50	1.875	1.75	2.00	2.50	2.00	1.50	1.875	1.375	2.125	2.25	2.00	2.375	1.75
	1.50	1.50	2.00	1.875	2.25	2.125	1.75	1.75	2.625	2.00	2.125	1.875	2.50	1.625	2.00	1.625	2.375	2.00
Totals.....	89.625	102.375	89.00	96.875	107.25	100.125	94.875	99.50	107.375	99.75	95.875	100.50	95.75	96.00	100.75	94.375	104.75	102.625

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.50	0.9842	B′	3.25	1.2795	B′	2.875	1.1318	B′	3.00	1.1811	B′	3.00	1.1811	B′	2.50	0.9842
	B″	3.25	1.2795	B″	2.75	1.0821	B″	3.00	1.1811	B″	2.50	0.9842	B″	2.75	1.0826	B″	3.00	1.1811
	B‴	2.50	0.9842	B‴	2.875	1.1318	B‴	3.50	1.3779	B‴	3.00	1.1811	B‴	3.125	1.2303	B‴	2.625	1.0334
Highest.....	.....	3.25	1.2795	.....	3.25	1.2795	.....	3.50	1.3779	.....	3.00	1.1811	.....	3.125	1.2303	.....	3.00	1.1811
Minimum measurements.	B′	1.25	0.4921	B′	1.25	0.4921	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.375	0.5413	B′	1.25	0.4921
	B″	1.50	0.5905	B″	1.25	0.4921	B″	1.50	0.5905	B″	1.50	0.5905	B″	1.25	0.4429	B″	1.50	0.5905
	B‴	1.25	0.4921	B‴	1.125	0.4429	B‴	1.50	0.5905	B‴	1.00	0.3937	B‴	1.50	0.5905	B‴	1.375	0.5413
Lowest	.....	1.25	0.4921	.....	1.125	0.4429	.....	1.50	0.5905	.....	1.00	0.3937	.....	1.125	0.4429	.....	1.25	0.4921
Average measurements..	B′	1.793	0.7059	B′	1.93	0.7598	B′	1.89	0.7440	B′	1.99	0.7834	B′	1.92	0.7559	B′	1.88	0.7401
	B″	2.048	0.8062	B″	2.14	0.8425	B″	1.99	0.7834	B″	1.91	0.7519	B″	1.92	0.7559	B″	2.09	0.8228
	B‴	1.78	0.7007	B‴	2.00	0.7874	B‴	2.14	0.8425	B‴	2.01	0.7915	B‴	2.01	0.7915	B‴	2.05	0.8070
Average	.....	1.874	0.7377	.....	2.02	0.7952	.....	2.00	0.7874	.....	1.97	0.7755	.....	1.95	0.7677	.....	2.00	0.7874
Measurements above average..	.....	78		.....	62		.....	43		.....	[illegible]		.....	73		.....	55	
Measurements below average..	.....	72		.....	88		.....	76		.....	61		.....	77		.....	[illegible]	

TABLE I.—*Measurements of fineness of wools*—Continued.

	MINNESOTA.																	
	EWES, 2 TO 3 YEARS OLD.																	
Catalogue number of samples..	487.			488.			489.			490.			491.			492.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.75	2.00	2.00	2.00	2.50	2.25	2.00	1.50	2.00	1.50	2.875	2.375	2.25	1.875	1.50	2.00	2.00	2.375
	2.50	2.00	1.25	2.50	2.125	2.375	1.625	1.625	2.375	1.75	1.875	2.50	2.375	2.375	2.25	2.125	1.75	2.50
	2.375	2.125	2.00	2.00	2.625	2.00	1.50	2.00	2.00	2.00	1.75	2.25	2.00	1.625	2.00	2.25	2.125	2.75
	2.00	1.875	2.00	2.25	2.00	2.125	2.00	2.50	1.75	2.50	2.50	2.50	1.50	2.50	2.25	1.75	2.25	2.00
	2.00	1.875	1.75	2.75	2.50	1.875	2.75	2.00	2.50	1.50	1.625	2.125	2.125	2.00	2.25	2.00	2.00	1.25
	1.875	1.75	2.00	2.125	2.00	2.00	2.50	2.00	2.00	1.50	2.00	2.25	2.375	2.50	1.50	2.00	1.25	1.75
	2.00	2.00	2.00	2.00	1.625	2.00	1.75	2.00	2.25	1.625	2.25	2.00	2.875	2.50	2.00	1.75	1.75	2.00
	2.00	1.75	2.00	2.00	1.75	2.25	2.875	2.25	1.875	1.625	1.25	2.375	2.00	2.25	2.25	1.625	1.875	2.25
	1.875	2.00	2.25	2.00	2.25	2.00	1.50	1.625	2.50	2.00	2.50	2.375	2.125	2.375	1.75	1.875	2.00	2.125
	1.50	2.00	1.75	2.00	2.00	2.00	1.875	1.75	3.00	2.00	1.625	1.625	3.00	2.50	2.00	2.50	2.75	2.00
	2.00	2.00	2.00	2.125	3.00	2.375	1.50	3.00	2.00	2.375	2.00	2.00	2.50	1.875	2.50	2.50	3.00	2.00
	2.00	2.00	2.75	2.25	2.25	1.75	2.00	1.75	2.25	2.00	2.00	2.00	1.875	1.625	1.875	2.00	1.875	2.125
	2.00	1.625	2.125	2.375	2.00	2.125	1.75	2.00	2.50	1.875	2.125	2.00	2.625	2.625	1.75	2.50	1.50	1.50
	2.00	2.00	1.375	2.00	2.00	2.00	2.00	2.125	2.00	1.50	1.50	2.125	1.875	2.00	2.00	2.375	2.00	2.50
	1.875	1.875	1.625	3.00	2.125	2.50	2.125	2.25	2.00	2.00	2.375	2.375	2.50	2.00	1.75	2.875	2.00	2.625
	1.625	1.625	2.00	1.875	2.00	2.00	2.375	2.00	2.50	2.50	2.125	1.625	2.00	1.875	2.25	2.625	2.375	2.125
	2.00	1.625	2.00	2.00	2.75	2.25	1.625	2.00	2.00	1.50	2.375	1.50	1.50	2.125	2.25	2.00	2.50	3.00
	2.00	1.50	2.125	2.00	2.50	2.125	2.00	2.00	2.00	1.625	2.00	2.375	2.125	1.75	1.625	1.75	2.00	2.00
	2.00	1.875	2.25	1.875	2.50	2.00	1.50	2.00	2.125	1.50	2.625	2.125	2.00	1.625	1.75	1.50	2.25	1.50
	2.25	1.50	1.875	2.125	2.50	2.125	1.625	1.875	1.875	2.00	2.00	2.00	2.00	2.00	1.875	2.00	2.25	2.00
	1.875	2.00	2.00	2.375	2.625	2.625	1.625	2.00	2.00	2.00	1.625	1.625	2.00	1.875	2.00	1.625	2.50	1.50
	2.50	1.75	2.00	1.875	2.00	2.25	2.00	2.125	2.125	1.50	2.00	2.00	2.50	2.00	2.125	1.75	2.00	1.75
	2.25	1.75	1.75	2.00	2.25	2.125	2.00	2.00	2.00	2.125	2.125	1.75	1.875	2.00	1.50	2.00	1.875	2.375
	2.50	1.75	1.25	2.00	2.50	2.00	1.75	1.875	2.00	1.625	1.875	2.125	2.50	2.125	2.00	2.50	2.00	2.375
	2.00	2.00	1.75	2.25	2.00	2.50	1.50	2.00	2.00	2.125	2.00	2.00	1.75	2.25	2.25	2.75	1.75	2.00
	2.125	2.25	1.625	2.00	2.25	2.00	2.00	1.625	2.50	1.50	2.00	1.50	2.50	2.50	1.50	1.625	1.50	1.625
	1.75	2.00	2.50	2.50	2.00	2.00	2.125	2.00	2.375	2.625	1.875	1.75	2.50	2.25	2.125	1.125	2.50	2.125
	2.00	1.75	2.00	1.625	1.625	2.00	1.50	2.125	1.875	2.00	2.25	2.00	2.375	2.375	1.75	1.75	2.00	2.00
	2.625	2.00	1.75	2.125	2.125	3.00	1.625	1.375	2.00	1.875	2.50	2.00	3.375	1.875	2.00	2.00	2.25	2.375
	2.50	1.50	1.875	1.75	2.00	2.125	2.00	2.00	2.125	1.875	1.50	2.00	1.875	2.00	2.25	2.50	1.75	2.00
	2.50	1.50	2.00	2.00	2.50	3.00	1.625	2.00	2.125	2.00	1.625	1.875	1.75	2.50	1.75	2.50	2.00	2.00
	2.25	2.00	1.625	2.375	2.00	1.75	2.00	2.125	2.125	1.875	1.875	2.50	2.125	1.875	2.00	1.625	2.25	2.00
	2.125	1.875	1.50	2.00	2.50	2.00	1.50	2.00	2.375	1.625	2.00	1.875	1.625	1.875	2.00	2.00	1.625	2.00
	1.625	1.50	2.125	2.375	2.50	2.75	2.00	2.00	4.00	2.00	2.00	2.00	2.125	2.00	2.50	1.50	2.25	2.50
	2.00	1.75	2.00	2.00	2.25	1.75	2.00	1.625	2.25	1.50	1.625	2.00	2.25	1.875	3.00	1.625	1.75	1.75
	2.125	1.375	1.75	2.00	2.00	2.00	2.00	1.75	2.125	2.00	1.625	2.375	2.00	2.125	3.00	1.875	1.875	2.125
	2.375	1.625	2.50	2.50	2.25	1.75	1.875	1.75	2.00	2.00	1.875	2.25	2.00	1.875	2.50	2.00	2.00	2.00
	2.00	1.625	2.00	2.00	3.00	2.50	1.25	1.625	2.25	2.00	1.875	1.50	1.50	2.00	1.50	1.875	2.00	2.125
	1.75	1.50	2.125	2.25	2.50	3.00	2.00	2.00	2.00	1.75	3.375	2.125	1.50	2.00	1.75	1.875	2.125	1.75
	1.50	2.00	2.25	2.125	2.125	1.875	1.75	2.00	1.875	2.50	2.00	2.125	1.25	1.875	1.75	1.75	2.25	2.50
	2.125	2.00	2.50	2.00	2.125	2.00	1.875	2.00	2.00	2.125	1.625	2.375	2.00	1.875	2.50	1.125	1.75	2.00
	2.00	1.625	2.125	2.50	2.25	1.50	1.875	2.00	2.00	2.25	2.125	2.375	2.00	2.25	2.00	2.00	1.50	2.50
	1.875	2.00	1.75	2.00	2.625	2.50	1.50	2.00	1.75	2.00	2.00	2.25	2.375	2.00	2.00	2.00	1.75	2.125
	2.125	2.125	1.75	2.25	2.00	3.00	2.00	2.00	2.00	1.875	2.00	2.375	1.50	1.875	1.875	2.00	2.75	2.125
	2.00	2.125	2.00	2.25	2.375	2.50	1.50	1.625	2.00	1.875	2.00	2.50	2.00	2.50	2.00	1.875	2.625	2.50
	2.125	2.50	1.875	2.375	3.00	3.00	2.50	2.00	1.50	1.625	1.875	2.25	1.875	2.00	2.25	2.50	2.375	2.00
	2.00	2.00	1.75	2.25	2.375	2.00	1.75	2.00	1.25	2.00	2.375	2.00	2.625	2.00	1.75	1.50	1.75	2.50
	2.00	1.875	1.75	2.00	2.125	2.50	2.00	1.50	2.00	1.625	1.875	2.25	1.625	2.00	2.00	2.00	2.50	1.50
	1.75	2.00	2.00	2.50	2.00	2.50	1.75	1.875	2.00	1.75	1.75	2.00	1.75	1.75	2.00	1.50	2.25	1.25
	2.00	1.875	1.75	2.25	2.50	3.00	1.75	2.125	1.50	1.875	2.50	2.00	2.00	1.875	2.125	1.875	1.625	1.75
Totals	103.50	92.125	90.75	110.00	112.250	112.625	95.00	94.375	107.625	97.125	103.375	105.250	104.875	103.625	101.125	97.625	103.125	104.50

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.625	1.0334	B′	3.00	1.1811	B′	3.00	1.1811	B′	3.00	1.1811	B′	3.375	1.3287	B′	2.875	1.1318
	B″	3.00	0.9842	B″	3.00	1.1811	B″	2.50	0.9842	B″	2.375	1.0287	B″	3.625	1.0334	B″	3.00	1.1811
	B‴	2.75	1.0826	B‴	3.00	1.1811	B‴	4.00	1.5748	B‴	2.875	1.1318	B‴	3.00	1.1811	B″	3.00	1.1811
Highest	.....	2.75	1.0826	.....	3.00	1.1811	.....	4.00	1.5748	.....	3.375	1.3287	.....	3.375	1.3287	.....	3.00	1.1811
Minimum measurements.	B′	1.50	0.5905	B′	1.625	0.6397	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.25	0.4921	B′	1.125	0.4429
	B″	1.375	0.5413	B″	1.625	0.6397	B″	1.375	0.5413	B″	1.25	0.4921	B″	1.625	0.6397	B″	1.25	0.4921
	B‴	1.25	0.4921	B‴	1.50	0.5905	B‴	1.25	0.4921	B‴	1.50	0.5905	B‴	1.50	0.5905	B‴	1.25	0.4921
Lowest	.....	1.25	0.4921	.....	1.50	0.5905	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.125	0.4429
Average measurements..	B′	2.07	0.8149	B′	2.20	0.8661	B′	1.90	0.7480	B′	1.943	0.7649	B′	2.098	0.8259	B′	1.953	0.7688
	B″	1.84	0.7244	B″	2.24	0.8818	B″	1.92	0.7559	B″	2.068	0.8141	B″	2.073	0.8161	B″	2.063	0.8122
	B‴	1.93	0.7598	B‴	2.25	0.8858	B‴	2.15	0.8464	B‴	2.105	0.8287	B‴	2.073	0.7691	B‴	2.09	0.8228
Average.....	.....	1.94	0.7639	.....	2.23	0.8779	.....	1.99	0.7834	.....	2.038	0.8027	.....	2.06	0.8110	.....	2.035	0.8011
Measurements above average..	.....	89		.....	69		.....	98		.....	57		.....	58		.....	55	
Measurements below average..	.....	61		.....	81		.....	52		.....	93		.....	92		.....	93	

TABLE I.—*Measurements of fineness of wools*—Continued.

	MINNESOTA.																	
	EWES, 2 to 3 YEARS OLD.																	
Catalogue number of samples..	493.			494.			495.			496.			497.			498.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.00	2.00	2.00	1.875	1.625	2.25	2.25	1.75	1.75	3.25	3.00	3.50	1.50	1.625	1.50	2.00	1.50	2.00
	2.00	2.25	2.75	1.50	1.625	1.50	2.00	2.875	2.00	2.50	2.75	2.00	1.25	1.50	2.50	1.75	1.50	2.00
	2.25	2.375	1.625	1.625	1.50	1.625	1.50	3.00	2.625	2.50	2.00	2.625	2.50	1.75	1.75	1.50	1.375	1.75
	1.75	2.125	2.00	1.50	1.75	1.50	1.50	2.25	2.375	2.75	2.375	2.25	1.25	1.875	2.25	1.75	1.50	1.50
	1.75	2.25	3.00	1.625	1.50	1.25	1.875	2.375	3.50	2.375	2.50	1.50	1.25	1.625	1.50	2.00	1.75	1.50
	1.50	2.125	2.25	2.50	1.50	2.25	2.25	2.25	3.00	2.50	2.25	2.50	1.75	1.875	2.00	2.50	1.75	1.75
	2.00	2.125	2.50	2.00	1.875	2.625	2.00	2.00	2.50	1.625	2.375	2.625	1.75	2.00	1.625	3.25	1.75	2.00
	2.00	2.125	2.25	1.75	1.75	1.50	2.625	2.75	2.25	3.25	2.375	2.375	2.00	2.125	2.25	2.00	1.875	1.375
	1.75	2.25	2.00	2.375	1.875	2.00	3.00	2.00	2.375	2.50	2.25	2.25	3.00	2.25	2.50	1.375	1.625	1.25
	1.75	2.25	2.00	2.00	2.25	1.50	3.75	1.75	2.50	2.00	2.00	2.125	1.375	1.50	1.625	2.00	1.625	1.50
	2.125	2.125	1.625	1.25	2.00	1.75	2.00	2.50	2.625	2.00	2.50	2.00	1.50	1.875	1.75	2.00	1.75	2.25
	1.75	2.00	2.00	1.25	1.50	2.125	2.125	2.50	2.75	1.875	2.375	2.50	1.50	1.75	1.375	2.25	1.75	1.50
	1.50	2.00	2.25	2.50	1.75	1.875	2.25	2.50	3.00	2.50	2.125	2.875	1.375	2.25	1.75	1.50	2.00	1.75
	2.00	2.00	3.50	2.00	1.375	1.50	1.875	2.00	1.75	1.50	2.25	2.00	1.25	1.375	1.875	1.75	1.50	1.50
	2.00	2.25	1.75	2.50	1.50	1.50	2.00	2.25	1.75	1.75	2.50	1.75	2.50	1.50	2.125	3.00	1.875	1.625
	2.00	2.125	3.875	1.50	1.875	1.75	1.75	2.125	1.75	1.875	2.50	2.125	2.00	1.50	1.50	1.50	1.25	1.25
	2.125	2.00	2.00	1.625	1.75	2.00	1.875	2.00	2.00	1.50	2.375	2.625	1.375	1.50	3.00	1.75	1.50	1.75
	2.00	2.00	1.75	1.50	2.00	1.00	2.00	2.75	2.125	1.00	2.00	2.25	1.50	1.375	1.50	1.75	1.50	1.125
	2.125	1.75	2.50	1.75	1.75	1.875	1.50	1.50	3.50	2.00	1.75	2.25	1.50	1.50	2.875	1.75	1.75	2.25
	2.25	1.875	2.50	2.75	1.75	1.875	3.50	2.00	2.875	2.375	1.875	2.50	1.50	2.00	2.00	1.375	1.50	1.375
	2.25	2.125	1.875	2.00	1.375	1.75	3.00	1.875	2.00	2.00	2.00	1.75	1.625	2.375	2.00	2.125	1.625	2.25
	1.625	2.00	2.00	1.75	2.00	2.00	2.00	2.00	1.75	2.00	1.75	2.25	1.375	1.375	2.625	2.00	2.00	2.00
	1.75	1.875	1.00	1.625	1.75	2.00	2.00	1.375	1.75	1.875	2.50	2.125	1.50	1.50	2.50	2.25	2.00	2.75
	2.25	2.00	2.75	2.00	1.875	2.00	1.875	1.50	1.75	1.50	2.00	2.125	1.625	1.75	2.00	1.75	1.625	1.50
	2.25	2.125	2.25	1.50	1.75	1.75	2.125	3.00	2.00	1.50	1.75	1.50	1.75	2.50	2.125	2.375	1.625	2.25
	2.50	1.875	2.25	1.625	2.25	1.875	1.375	2.125	3.00	2.125	1.875	1.375	1.50	2.25	1.75	1.50	1.50	2.375
	2.375	2.25	1.625	2.25	2.375	2.00	2.50	1.75	3.00	2.125	2.00	2.75	1.625	2.00	1.75	2.25	1.625	1.75
	2.625	1.875	2.00	2.125	1.50	2.125	1.50	1.50	2.00	3.00	3.00	2.25	1.50	2.00	2.25	2.25	1.50	2.375
	2.00	2.25	2.00	2.75	1.75	1.00	2.25	2.125	1.875	2.50	2.00	2.125	2.875	2.00	2.50	2.375	2.00	1.25
	1.50	2.00	2.125	1.50	1.875	2.00	2.125	2.00	2.00	2.125	2.375	3.50	2.125	2.25	2.00	2.125	1.375	1.25
	1.875	2.375	1.25	1.75	1.625	1.625	1.75	1.375	2.125	2.25	2.375	1.75	2.50	1.50	2.375	1.625	1.375	1.50
	1.625	2.00	1.625	1.875	1.625	1.75	3.00	2.125	2.25	1.125	2.50	2.125	2.375	1.625	1.75	2.25	1.50	2.00
	1.875	2.50	1.625	2.00	2.00	1.75	2.00	2.00	2.00	2.125	1.50	2.375	1.50	1.375	3.00	2.125	1.50	1.50
	2.25	1.625	1.75	1.50	1.75	2.00	1.50	2.25	2.25	3.00	1.75	2.25	1.75	1.50	2.50	2.25	2.00	1.75
	2.25	2.125	2.00	1.50	2.75	2.125	1.875	2.375	2.125	1.50	1.875	3.00	1.50	2.00	2.00	2.00	1.75	2.00
	2.00	2.25	2.00	1.50	1.75	2.50	2.50	2.125	1.625	2.00	2.00	1.625	2.25	2.00	1.50	2.00	2.50	1.50
	1.25	2.375	1.75	1.50	1.625	2.00	2.125	2.375	3.00	2.00	3.50	2.50	1.375	1.875	2.25	2.25	2.00	1.50
	1.875	2.00	1.625	2.25	2.00	2.25	2.25	1.50	2.00	2.00	2.625	2.00	1.50	2.125	2.50	2.375	1.75	1.375
	2.00	2.00	2.50	2.00	1.50	2.125	1.50	2.00	2.50	1.375	2.00	2.625	2.50	2.25	2.25	1.50	1.875	2.00
	1.875	1.75	2.00	2.00	1.75	1.75	1.875	2.00	2.125	2.00	2.25	2.00	1.375	2.25	2.875	1.50	1.50	1.75
	2.00	1.875	2.00	1.75	2.00	2.00	2.00	3.00	2.375	3.375	2.375	2.50	2.125	2.00	2.625	2.00	1.50	1.125
	2.50	1.75	1.50	1.50	1.50	1.75	1.75	1.50	2.50	2.375	2.25	2.75	1.50	1.50	2.125	2.375	1.75	1.375
	2.625	2.50	2.00	1.625	1.50	1.625	1.875	1.625	2.125	2.50	1.75	3.00	2.00	2.00	1.50	2.25	1.875	1.50
	2.00	2.00	2.25	1.50	1.875	1.25	2.00	2.00	2.25	1.625	1.875	3.50	1.75	2.75	1.875	2.875	2.00	2.00
	2.50	2.00	3.00	2.00	1.75	2.50	1.50	2.00	2.375	2.625	2.50	4.00	1.50	2.25	2.25	2.125	2.125	1.375
	2.623	1.875	2.50	2.50	2.25	1.50	2.00	1.50	2.50	1.75	2.25	3.125	1.50	2.375	3.50	2.25	2.125	1.25
	2.125	1.875	1.75	1.50	1.875	1.50	2.875	1.75	2.875	2.00	2.375	2.50	2.00	1.50	3.00	2.00	2.00	1.50
	1.625	2.00	1.625	1.50	1.875	1.625	2.00	2.00	2.625	1.375	1.50	2.375	1.375	1.50	2.50	1.75	1.875	1.50
	2.625	1.75	2.00	1.25	1.50	1.75	2.25	1.875	1.50	2.00	1.625	2.25	1.625	1.625	2.00	2.00	1.625	1.50
	2.25	1.75	2.25	1.50	1.75	2.00	1.75	1.875	2.125	2.125	2.00	2.00	2.50	2.00	2.125	1.50	1.625	1.25
Totals	100.50	103.250	107.00	89.00	89.250	91.125	103.75	103.625	114.375	104.50	100.25	118.625	88.625	92.75	106.25	100.750	85.750	81.95

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.625	1.0334	B′	2.75	1.0826	B′	3.75	1.4763	B′	3.375	1.3287	B′	3.00	1.1811	B′	3.25	1.2795
	B″	2.50	0.9842	B″	2.75	1.0826	B″	3.00	1.1811	B″	3.50	1.3779	B″	2.75	1.0826	B″	2.50	0.9842
	B‴	3.875	1.5255	B‴	2.625	1.0334	B‴	3.50	1.3779	B‴	4.00	1.5748	B‴	3.50	1.3779	B‴	2.75	1.0826
Highest.....		3.875	1.5255		2.75	1.0826		3.75	1.4763		4.00	1.5748		3.50	1.3779		3.25	1.2795
Minimum measurements.	B′	1.00	0.3937	B′	1.25	0.4921	B′	1.375	0.5413	B′	1.00	0.3937	B′	1.25	0.4921	B′	1.375	0.5413
	B″	1.625	0.6397	B″	1.375	0.5413	B″	1.375	0.5413	B″	1.50	0.5905	B″	1.375	0.5413	B″	1.25	0.4921
	B‴	1.00	0.3937	B‴	1.00	0.3937	B‴	1.50	0.5905	B‴	1.375	0.5413	B‴	1.375	0.5413	B‴	1.125	0.4429
Lowest		1.00	0.3937		1.00	0.3937		1.375	0.5413		1.00	0.3937		1.25	0.4921		1.25	0.4921
Average measurements..	B′	2.01	0.7913	B′	1.78	0.7007	B′	2.075	0.8169	B′	2.09	0.8228	B′	1.773	0.6980	B′	2.015	0.7933
	B″	2.065	0.8129	B″	1.785	0.7027	B″	2.073	0.8161	B″	2.005	0.7893	B″	1.855	0.7303	B″	1.715	0.6751
	B‴	2.14	0.8425	B‴	1.823	0.7177	B‴	2.287	0.9003	B‴	2.373	0.9342	B‴	2.125	0.8366	B‴	1.639	0.6452
Average		2.072	0.8157		1.796	0.7070		2.145	0.8444		2.156	0.8488		1.917	0.7547		1.786	0.7031
Measurements above average..		61			65			56			70			71			63	
Measurements below average..		89			85			94			74			79			87	

TABLE I.—*Measurements of fineness of wools*—Continued.

	MINNESOTA.									ILLINOIS.								
	EWES, 2 TO 3 YEARS OLD.									RAMS, 1 YEAR OLD.								
Catalogue number of samples..	499.			500.			501.			447.			448.			449.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.375	2.00	2.00	2.25	1.50	3.00	2.75	1.75	2.00	2.25	2.00	1.875	1.75	2.00	1.50	2.50	2.00	1.50
	2.125	2.25	2.125	2.50	1.25	3.00	3.00	1.875	2.00	1.50	1.50	1.75	1.75	1.75	1.75	1.875	1.875	2.50
	2.00	2.00	1.50	2.25	2.375	2.75	2.00	2.00	1.75	2.00	1.50	2.625	1.50	1.875	1.875	2.50	1.625	2.25
	1.50	2.00	2.25	2.00	2.00	2.875	1.75	2.00	2.00	2.00	2.00	2.00	2.00	1.75	1.75	1.50	2.375	2.00
	1.75	1.875	2.375	1.50	1.50	2.00	2.00	2.00	1.875	2.00	1.50	1.50	1.50	1.875	1.50	2.00	2.00	2.00
	2.25	2.00	1.875	1.75	1.875	2.00	2.25	2.125	2.00	1.50	2.00	1.50	1.50	2.00	1.50	1.875	2.375	1.875
	2.50	1.50	2.125	1.75	2.00	2.375	1.625	2.00	2.00	1.50	2.25	1.875	1.75	1.75	2.00	2.50	2.50	1.875
	2.125	2.00	1.50	2.00	1.50	2.00	1.75	2.50	1.50	2.50	1.50	2.00	1.875	1.625	1.50	1.875	2.00	3.00
	1.75	1.875	1.75	2.25	2.00	2.25	2.50	1.875	1.75	2.00	1.75	2.00	1.50	1.625	2.00	2.00	2.00	2.00
	2.00	1.875	1.875	2.125	1.50	2.00	2.875	1.75	1.75	1.625	1.50	2.00	1.50	2.00	1.50	1.625	2.625	2.00
	1.75	2.00	2.00	1.875	2.00	2.25	2.00	1.75	2.125	2.00	1.75	2.00	2.00	2.25	2.50	2.00	2.00	2.50
	1.875	2.125	2.25	2.50	1.50	2.125	2.00	1.75	2.125	2.00	1.75	2.00	1.625	2.00	2.50	2.125	2.00	2.125
	1.50	2.25	2.375	2.00	1.75	1.75	2.25	1.50	1.50	1.875	2.00	2.375	1.50	1.50	2.50	1.625	2.00	2.25
	2.25	1.75	2.00	2.125	2.25	1.875	1.75	2.25	1.50	1.875	1.75	1.50	1.50	1.50	1.50	2.00	2.375	3.00
	2.00	2.00	1.75	1.75	2.00	1.50	2.00	1.75	1.50	2.00	1.50	2.00	1.50	1.50	1.50	1.625	2.00	2.125
	1.50	2.75	1.875	1.875	1.875	1.50	2.375	1.375	1.75	1.625	2.00	1.50	2.00	2.00	1.50	1.875	1.375	2.125
	1.50	2.50	1.75	1.75	1.50	1.625	2.25	1.75	1.875	2.00	1.50	2.00	1.625	1.50	1.50	2.50	2.125	2.00
	2.00	1.50	2.00	1.50	2.25	2.00	2.00	2.00	2.25	2.00	2.125	1.75	1.75	1.50	1.50	2.375	2.00	1.50
	2.125	2.25	2.00	2.00	2.75	2.00	2.00	1.75	2.25	2.00	1.50	2.00	2.00	1.50	1.75	2.00	2.50	2.50
	2.375	2.125	2.00	1.75	3.00	1.75	1.75	1.875	2.375	1.25	1.50	1.50	2.25	1.50	1.50	2.00	2.75	1.75
	2.00	1.875	1.875	1.875	2.75	1.75	2.125	2.125	2.375	1.50	1.50	1.50	2.00	1.50	1.50	2.125	1.875	2.125
	1.50	1.50	1.75	2.00	2.125	1.50	2.50	2.00	2.125	1.50	2.25	2.00	1.75	1.50	1.50	1.75	1.50	2.25
	2.25	1.875	1.875	2.00	2.25	1.875	2.00	2.25	2.25	1.875	2.50	1.625	1.75	1.75	2.50	2.00	2.00	2.00
	2.00	2.00	2.25	3.00	2.375	1.75	1.875	1.875	2.50	2.125	1.50	2.625	2.00	1.75	2.00	2.125	2.625	1.875
	2.00	1.50	2.375	2.50	2.50	1.50	2.125	2.375	2.25	1.75	2.00	2.50	1.50	2.00	1.875	2.375	1.625	2.50
	2.00	1.75	1.75	2.75	1.875	2.00	1.875	1.50	2.125	3.00	1.50	1.75	1.50	1.50	1.875	1.875	2.625	2.00
	2.25	2.00	1.75	2.875	2.00	1.75	2.25	1.50	1.50	1.75	2.00	1.625	1.50	1.625	2.00	2.125	2.00	2.375
	2.50	2.00	1.875	1.50	1.75	1.875	1.125	1.25	1.875	2.00	1.25	1.875	2.00	1.75	1.875	2.00	2.50	2.50
	2.00	1.875	2.25	2.00	1.75	2.00	2.00	2.375	2.00	1.375	2.25	2.25	1.875	1.75	1.75	2.00	1.875	2.125
	2.125	1.875	2.50	1.50	2.00	2.125	2.125	2.25	2.00	1.50	1.875	1.75	2.00	2.00	2.00	2.375	3.00	1.75
	2.00	2.00	2.125	1.75	2.125	2.25	2.50	1.50	2.25	2.00	1.50	1.50	1.50	2.00	2.00	2.00	2.00	2.50
	2.75	2.50	2.00	1.875	2.00	2.125	2.00	2.25	2.50	1.875	2.375	1.875	2.00	2.00	2.00	1.875	1.75	2.00
	1.875	1.75	2.125	1.75	1.875	2.00	2.25	2.125	2.625	1.625	1.125	1.75	1.50	1.50	1.875	1.875	1.50	2.50
	2.00	1.50	2.25	1.75	1.75	2.00	3.00	2.00	1.50	1.50	1.125	2.50	1.50	2.00	2.00	1.875	1.875	2.00
	2.125	2.00	2.00	2.00	1.875	2.25	2.00	2.00	1.75	1.50	1.125	2.00	2.00	1.50	1.375	1.625	2.25	3.00
	1.875	2.125	1.75	2.50	2.00	2.375	2.625	2.25	2.00	1.50	1.50	1.875	1.50	2.00	1.50	2.00	2.00	1.875
	1.75	2.00	1.875	2.00	2.25	2.00	2.50	3.00	1.50	1.75	1.50	2.00	1.50	2.00	2.25	2.125	2.125	1.625
	2.00	2.25	2.00	1.875	2.125	1.50	2.00	1.50	2.25	1.50	2.00	1.75	1.50	1.875	1.50	2.25	2.00	2.00
	2.25	2.50	1.75	1.875	2.00	2.00	1.75	2.375	2.00	1.625	1.125	1.875	2.00	1.625	1.50	1.50	2.375	2.00
	2.50	2.375	1.50	2.00	1.75	1.75	1.875	2.50	2.50	1.625	1.375	2.00	1.50	1.625	1.50	1.875	2.50	2.25
	2.25	2.00	2.00	1.75	2.50	1.50	2.00	1.75	1.75	2.00	1.50	2.00	1.50	1.75	1.25	2.00	2.25	1.50
	1.75	1.875	2.00	1.75	1.75	2.25	2.50	2.00	1.875	1.625	1.25	2.50	1.50	1.625	1.75	2.00	1.75	3.00
	2.375	1.75	2.125	2.00	1.50	2.25	2.375	2.00	2.00	1.75	1.625	1.75	1.50	2.125	2.00	2.00	2.50	2.00
	2.00	2.00	1.875	2.50	1.50	1.875	2.50	2.25	2.00	1.625	1.50	2.50	1.50	1.75	1.75	1.875	2.00	2.50
	2.875	2.25	1.75	3.25	1.25	1.75	2.25	1.875	2.25	1.50	2.00	2.00	1.625	1.75	1.50	2.00	2.00	2.25
	2.00	2.00	1.75	2.25	1.75	2.25	2.125	1.75	2.00	1.50	1.50	1.75	1.50	1.50	1.375	1.75	2.125	2.375
	2.125	1.875	1.50	2.25	2.00	2.375	2.50	1.75	2.00	1.50	1.75	1.75	1.75	2.00	1.50	2.125	2.00	2.00
	1.875	2.00	1.875	3.50	2.50	2.00	2.25	1.50	1.50	2.00	1.50	2.25	1.50	2.00	1.50	2.00	1.875	2.00
	2.00	3.00	2.00	1.75	1.50	1.75	2.00	1.75	1.50	2.50	1.50	2.00	1.75	2.00	1.625	2.00	1.50	2.00
	2.25	3.00	1.75	2.00	2.375	1.875	2.375	2.125	1.625	2.00	2.25	1.50	1.50	2.00	2.50	1.875	2.50	2.00
Totals.....	102.50	101.625	97.125	105.875	99.000	102.625	108.25	97.125	98.625	90.875	84.625	97.75	87.75	90.375	91.00	100.125	105.00	105.75

	MINNESOTA.									ILLINOIS.								
	EWES, 2 TO 3 YEARS OLD.									RAMS, 1 YEAR OLD.								
	499.			500.			501.			447.			448.			449.		
	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.875	1.1318	B′	3.50	1.3779	B′	3.00	1.811	B′	3.00	1.1811	B′	2.25	0.8858	B′	2.50	0.9842
	B″	3.25	1.2795	B″	3.00	1.1811	B″	3.00	1.1811	B″	2.50	0.9842	B″	2.50	0.9842	B″	3.00	1.1811
	B‴	2.50	0.9842	B‴	3.00	1.1811	B‴	2.625	1.0334	B‴	2.625	1.0334	B‴	2.50	0.9842	B‴	3.00	1.1811
Highest		3.25	1.2795		3.50	1.3779		3.00	1.1811		3.00	1.1811		2.50	0.9842		3.00	1.1811
Minimum measurements.	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.125	0.4429	B′	1.25	0.4921	B′	1.50	0.5905	B′	1.50	0.5905
	B″	1.375	0.5413	B″	1.25	0.4921	B″	1.25	0.4921	B″	1.125	0.4429	B″	1.50	0.5905	B″	1.375	0.5413
	B‴	1.375	0.5413	B‴	1.50	0.5905	B‴	1.50	0.5905	B‴	1.50	0.5905	B‴	1.25	0.4921	B‴	1.50	0.5905
Lowest		1.375	0.5413		1.25	0.4921		1.125	0.4429		1.125	0.4429		1.25	0.4921		1.375	0.5413
Average measurements..	B′	2.05	0.7992	B′	2.117	0.8334	B′	2.165	0.8523	B′	1.818	0.7157	B′	1.755	0.6909	B′	1.98	0.7874
	B″	2.033	0.8070	B″	1.98	0.7795	B″	1.943	0.7649	B″	1.692	0.6661	B″	1.807	0.7114	B″	2.18	0.8267
	B‴	1.943	0.7649	B‴	2.053	0.8082	B‴	1.972	0.7763	B‴	1.955	0.7696	B‴	1.82	0.7165	B‴	2.175	0.8563
Average.....		2.008	0.7905		2.05	0.8070		2.03	0.7992		1.821	0.7169		1.79	0.7047		2.09	0.8228
Measurements above average..		53			54			60			75			81			87	
Measurements below average..		97			96			90			75			81			83	

TABLE I.—*Measurements of fineness of wools*—Continued.

ILLINOIS.

RAMS, 1 YEAR OLD.

Catalogue number of samples	450.			451.			452.			453.			454.			455.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.00	1.625	1.75	2.375	2.50	1.50	2.00	2.125	1.125	2.125	2.00	2.00	2.00	2.00	1.50	1.50	2.00	1.875
	1.375	1.50	1.50	1.625	2.50	1.75	1.50	1.25	1.375	2.50	2.50	1.50	2.50	2.00	1.75	1.75	1.625	1.75
	1.375	1.50	2.00	1.75	2.25	2.25	1.50	1.50	1.375	2.00	3.00	3.00	2.00	2.00	1.50	1.50	1.50	1.50
	2.00	2.00	1.50	1.50	2.375	1.50	1.375	1.625	1.375	2.50	2.50	2.25	1.50	2.00	2.25	1.50	2.125	1.625
	2.00	1.625	1.75	1.50	2.00	2.25	1.75	2.00	1.625	2.625	2.00	2.375	2.00	1.75	2.00	1.50	1.625	1.50
	1.875	1.875	2.00	2.00	2.125	2.125	1.875	1.375	1.25	2.75	2.75	2.50	1.625	2.00	2.00	1.625	2.00	1.875
	2.00	1.625	1.75	1.50	1.875	2.125	1.50	1.50	1.50	2.00	2.00	2.125	1.50	1.625	2.25	1.625	2.00	1.625
	1.75	1.625	1.50	2.00	2.25	2.00	1.25	1.50	1.875	2.25	2.125	2.50	2.00	2.00	2.25	1.875	1.875	1.625
	1.625	1.375	1.50	2.125	2.25	2.00	1.875	1.50	1.50	2.00	2.25	2.625	1.625	1.75	2.50	1.875	1.875	1.875
	1.75	2.00	2.00	2.125	2.00	2.125	1.50	1.25	1.125	2.00	2.25	2.375	1.875	2.50	1.50	1.50	1.875	2.50
	1.50	1.875	2.00	2.00	2.00	2.00	2.00	1.50	1.00	2.50	2.375	2.375	1.50	2.25	1.75	2.00	1.875	1.875
	2.00	1.875	1.50	2.125	2.00	1.625	1.50	1.625	1.50	2.375	1.875	2.50	1.50	1.625	2.00	2.00	1.875	1.25
	1.50	1.625	1.50	2.00	1.875	1.625	1.875	1.875	1.875	2.375	2.50	2.50	2.00	2.00	2.50	2.00	1.875	1.50
	1.375	1.50	2.00	2.125	2.75	1.50	1.875	1.50	1.625	2.125	3.00	2.00	1.50	2.00	2.00	2.25	2.00	2.50
	1.50	1.625	1.50	2.125	2.375	2.50	1.375	2.00	1.50	2.00	2.00	2.375	2.00	1.50	2.00	2.00	2.125	1.50
	1.75	1.50	1.625	2.125	2.00	1.875	2.50	1.375	1.25	1.75	2.375	3.00	1.50	2.00	1.50	2.00	1.50	1.25
	2.00	1.625	1.625	2.25	1.75	3.375	1.875	1.50	1.375	2.00	2.00	2.50	1.50	2.50	1.625	2.50	2.00	1.50
	2.00	2.00	1.50	1.875	2.50	2.375	1.50	1.50	1.50	2.00	1.625	2.00	1.50	1.625	1.75	2.25	1.50	1.75
	1.25	1.50	2.125	1.75	1.875	1.375	2.00	1.875	1.375	2.00	2.50	2.75	1.875	1.625	1.625	2.625	2.00	2.00
	1.50	1.625	2.00	2.25	2.50	2.75	1.375	1.375	1.625	2.00	1.75	2.00	1.50	2.00	1.50	2.00	1.625	1.625
	2.00	2.00	2.00	1.625	2.25	2.00	1.625	1.50	1.50	2.00	2.00	2.50	1.50	1.75	2.625	1.50	1.625	1.625
	1.625	2.125	1.875	2.00	1.75	2.00	1.50	1.50	1.50	2.50	1.875	2.25	1.625	2.00	2.625	2.00	2.00	1.875
	1.75	2.00	1.75	2.50	1.875	1.75	1.125	1.00	1.50	2.625	2.50	2.00	2.25	1.75	2.00	1.50	1.625	1.125
	1.50	2.00	1.75	1.875	1.625	2.00	2.00	1.625	1.625	2.00	1.875	2.00	1.75	2.50	2.00	1.75	1.50	1.25
	2.50	2.00	1.75	2.125	2.875	2.25	1.625	1.625	2.50	2.00	1.75	2.00	1.875	2.00	1.625	1.50	2.00	2.00
	1.75	1.50	2.00	2.50	2.00	2.125	2.00	1.50	1.125	1.75	2.00	2.00	2.00	2.50	1.625	1.875	1.625	1.875
	1.75	1.75	1.50	2.00	2.50	2.125	2.00	1.50	1.625	2.00	2.50	2.25	1.75	2.00	3.00	2.00	1.50	1.375
	1.625	1.50	1.50	1.25	2.25	2.125	1.875	1.50	2.00	2.50	3.00	1.75	2.00	2.00	2.50	1.50	2.00	1.875
	1.375	2.00	1.50	2.00	1.875	1.75	2.00	1.25	1.625	2.25	2.625	2.00	2.375	2.75	1.50	2.50	1.50	1.375
	1.75	1.75	2.00	2.25	2.375	2.00	1.50	1.625	1.375	2.00	2.50	2.50	2.50	1.625	1.50	2.00	1.875	1.375
	1.375	1.25	1.50	1.375	1.625	1.25	1.50	1.125	1.50	2.625	2.50	2.25	1.625	2.50	1.75	2.25	1.875	2.125
	1.75	1.375	2.00	1.50	2.00	2.00	1.875	1.25	1.50	2.50	3.00	2.00	1.625	1.75	1.875	1.625	2.00	1.75
	1.875	1.375	2.00	1.50	1.875	1.875	2.00	1.50	1.875	3.00	3.00	2.875	1.825	1.625	1.875	2.50	1.625	1.50
	1.625	1.625	1.875	1,125	1.50	2.125	1.50	1.75	1.50	2.625	2.00	2.25	2.375	2.00	2.00	2.00	1.375	1.375
	1.375	2.00	2.50	2.25	1.875	1.50	1.625	1.50	1.50	1.75	2.50	2.00	2.125	2.00	2.50	2.00	1.50	2.00
	1.50	1.625	1.75	3.00	2.875	2.50	1.50	1.50	1.625	2.50	3.00	2.50	2.00	2.25	2.00	1.50	1.50	2.00
	1.625	1.50	1.50	2.00	1.625	2.00	1.50	1.875	1.375	2.00	2.50	2.50	1.625	1.625	1.50	1.75	1.50	1.75
	1.875	1.625	1.50	2.00	1.50	2.00	1.50	1.875	1.875	2.625	2.00	2.50	1.75	1.75	2.00	1.50	1.625	1.75
	1.50	1.50	1.75	2.25	2.50	2.125	2.125	1.375	1.50	2.00	2.00	2.00	1.875	2.25	2.00	1.50	1.875	1.75
	1.875	1.50	1.75	2.00	2.125	2.875	2.00	1.625	1.50	2.00	2.00	2.00	2.00	2.75	2.00	1.50	2.125	1.75
	2.50	1.50	1.50	2.00	2.125	2.375	2.00	1.875	1.875	2.25	2.00	2.00	2.00	2.00	1.625	1.75	1.625	1.50
	1.75	1.625	1.50	1.50	1.75	2.00	2.00	1.375	1.625	2.50	1.75	2.25	1.25	2.00	2.125	2.125	2.125	2.00
	1.00	2.00	1.875	1.50	2.25	1.625	1.50	1.125	1.50	2.50	2.50	2.625	1.50	1.75	2.00	1.75	1.50	2.125
	1.375	1.50	1.875	2.375	2.00	2.00	2.00	1.625	1.625	2.00	2.375	1.75	1.875	1.75	2.25	2.375	1.25	1.375
	1.75	2.00	1.75	2.00	2.00	1.875	1.625	1.50	1.875	2.50	2.75	2.75	1.75	2.00	1.625	2.50	2.00	1.50
	2.00	2.125	1.50	2.00	1.75	2.50	1.50	1.875	1.125	2.50	2.00	2.375	1.875	1.50	2.50	1.375	1.50	1.75
	1.75	1.50	2.00	2.00	2.00	2.00	1.50	2.00	1.625	2.50	1.625	3.00	1.75	2.00	2.00	2.00	1.875	1.625
	1.875	1.50	2.00	1.50	1.875	2.50	1.50	1.50	1.375	2.50	2.50	2.00	2.50	1.50	2.00	1.625	1.50	1.75
	2.00	2.00	1.75	2.50	2.25	2.00	1.50	1.50	2.00	2.00	2.375	2.50	2.375	2.375	1.875	2.00	1.50	2.00
	1.125	1.375	1.50	1.50	1.75	2.50	2.00	1.00	1.625	2.50	2.00	2.25	1.50	2.00	2.25	1.75	1.50	1.125
Totals	85.25	84.625	87.125	97.125	104.125	102.375	85.00	77.125	77.125	112.875	114.375	114.875	91.875	99.00	98.50	93.375	87.50	85.50

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of an inch.
Recapitulation and reduction:																		
Maximum measurements	B′	2.50	0.9842	B′	3.00	1.1811	B′	2.50	0.9842	B′	3.00	1.1811	B′	2.50	0.9842	B′	2.625	1.0334
	B″	2.125	0.8366	B″	2.875	1.1318	B″	2.125	0.8366	B″	3.00	1.1811	B″	2.75	1.0826	B″	2.125	0.8366
	B‴	2.50	0.9842	B‴	3.375	1.3287	B‴	2.50	0.9842	B‴	3.00	1.1811	B‴	3.00	1.1811	B‴	2.50	0.9842
Highest		2.50	0.9842		3.375	1.3287		2.50	0.9842		3.00	1.1811		3.00	1.1811		2.625	1.0334
Minimum measurements	B′	1.00	0.3937	B′	1.125	0.4429	B′	1.125	0.4429	B′	1.75	0.6889	B′	1.25	0.4921	B′	1.375	0.5413
	B″	1.25	0.4921	B″	1.50	0.5905	B″	1.00	0.3937	B″	1.625	0.6397	B″	1.50	0.5905	B″	1.25	0.4921
	B‴	1.50	0.5905	B‴	1.25	0.4921	B‴	1.00	0.3937	B‴	1.50	0.5905	B‴	1.50	0.5905	B‴	1.125	0.4429
Lowest		1.00	0.3937		1.125	0.4429		1.00	0.3937		1.50	0.5905		1.25	0.4921		1.125	0.4429
Average measurements	B′	1.705	0.6712	B′	1.943	0.7649	B′	1.70	0.6692	B′	2.258	0.8889	B′	1.838	0.7236	B′	1.868	0.7354
	B″	1.693	0.6665	B″	2.083	0.8200	B″	1.543	0.6074	B″	2.288	0.9007	B″	1.98	0.7795	B″	1.75	0.6889
	B‴	1.743	0.6862	B‴	2.048	0.8062	B‴	1.543	0.6074	B‴	2.298	0.9047	B‴	1.97	0.7791	B‴	1.71	0.6732
Average		1.71	0.6732		2.03	0.7992		1.595	0.6279		2.28	0.8976		1.93	0.7598		1.77	0.6968
Measurements above average			74			64			64			61			78			67
Measurements below average			76			86			86			89			72			83

TABLE I.—*Measurements of fineness of wools*—Continued.

	ILLINOIS.																	
	RAMS, 1 YEAR OLD.																	
Catalogue number of samples	456.			457.			458.			459.			460.			461.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.50	1.50	1.75	1.75	2.00	2.00	2.50	2.375	2.375	1.75	3.00	3.125	1.50	3.50	2.25	1.50	2.00	2.125
	2.125	1.875	2.00	1.75	2.00	2.00	2.00	1.75	2.00	2.50	1.625	2.25	2.25	2.50	1.625	1.75	1.50	2.00
	1.00	2.25	1.50	2.00	1.625	1.50	2.50	2.00	2.00	2.50	2.50	2.125	2.00	2.00	2.50	2.00	1.75	2.00
	2.00	1.875	1.50	1.50	2.00	1.625	1.75	2.25	1.625	2.00	1.50	2.00	1.50	2.50	1.50	1.75	2.00	3.00
	1.125	1.875	1.50	1.75	2.00	1.75	1.875	2.375	2.00	2.00	2.00	2.00	1.75	2.00	3.375	2.00	2.25	2.00
	1.50	1.875	1.875	1.875	1.75	1.875	1.625	2.625	3.00	2.375	2.50	2.125	1.875	3.00	2.50	1.25	1.75	2.00
	1.50	1.75	1.75	2.00	1.50	2.125	1.75	2.00	3.00	2.50	2.50	2.125	1.875	2.25	2.50	1.25	1.50	1.75
	1.50	1.625	1.375	1.75	2.125	1.375	2.50	1.875	2.50	2.00	2.50	2.375	3.25	2.50	2.00	1.50	2.00	1.875
	2.00	1.875	2.375	2.75	2.50	1.375	2.00	2.50	2.50	2.50	2.50	2.50	2.00	2.50	2.00	2.00	2.375	2.75
	2.375	1.00	1.375	2.00	2.00	1.75	2.00	1.50	1.75	2.00	2.50	2.00	1.875	2.00	2.50	1.375	2.00	1.875
	1.875	1.50	2.00	1.50	2.00	1.75	1.625	1.50	2.125	1.75	2.00	1.50	2.00	1.75	1.50	1.625	2.00	2.00
	1.50	1.50	2.00	1.50	2.25	2.00	2.50	2.375	1.75	1.50	2.125	2.00	2.00	2.50	2.25	1.875	2.00	1.25
	1.50	2.00	1.375	1.75	1.50	1.50	2.00	2.25	2.00	1.625	1.50	3.375	2.375	2.00	2.125	1.625	2.00	1.75
	2.25	1.50	3.00	2.00	2.00	2.00	1.50	2.50	2.50	1.375	1.625	2.50	2.50	2.25	2.00	2.00	2.00	1.875
	1.50	2.50	1.875	2.00	2.50	1.625	2.00	2.50	2.25	1.75	2.50	2.25	2.00	2.00	1.50	1.875	1.50	2.375
	2.50	2.50	1.50	2.00	2.00	1.50	2.25	2.25	2.50	1.75	2.50	1.625	1.75	3.00	2.125	2.00	2.00	2.50
	2.00	2.25	1.25	1.625	2.00	1.50	2.25	2.50	3.00	1.75	3.00	2.00	1.50	3.00	2.50	2.375	1.50	2.375
	2.00	2.50	1.625	1.50	2.00	1.875	1.50	2.00	1.625	2.00	2.50	2.00	3.00	2.00	2.00	2.00	2.25	2.125
	1.875	2.00	1.625	1.75	2.00	1.50	2.125	2.00	2.875	2.00	1.50	1.50	3.50	2.00	2.625	1.75	2.00	2.00
	1.875	2.125	1.875	2.00	2.375	3.00	1.50	2.125	1.75	1.75	2.00	2.875	1.75	1.75	3.00	1.75	1.75	2.00
	1.75	1.625	2.125	1.50	2.00	1.75	1.50	1.25	3.00	2.00	2.00	2.375	1.50	2.25	2.75	2.00	1.875	2.125
	1.50	1.625	1.25	1.75	2.375	1.75	1.625	1.75	2.00	2.375	1.75	1.50	2.375	1.75	2.00	2.25	1.50	1.625
	1.75	2.625	2.00	1.50	2.00	2.00	2.50	1.875	2.50	2.25	2.50	2.00	2.00	2.375	3.00	2.00	1.75	1.50
	1.375	1.75	1.625	1.625	2.00	1.625	1.625	2.875	2.00	2.00	2.00	2.00	2.50	2.75	2.75	2.50	2.00	1.75
	1.625	1.875	1.125	1.625	2.50	2.25	2.50	2.00	2.00	1.625	2.50	1.50	2.50	2.50	1.125	1.75	2.25	2.125
	2.625	1.375	2.00	1.75	2.50	1.125	1.50	1.625	1.50	3.125	2.00	1.50	2.50	1.75	2.50	1.625	1.50	1.75
	1.625	1.50	2.00	2.375	1.875	1.875	1.50	2.00	1.75	1.75	2.00	1.75	2.00	2.00	1.75	2.00	1.625	1.75
	1.50	1.50	1.625	2.00	2.00	2.00	2.00	2.50	2.125	1.50	2.00	1.875	3.00	2.25	1.375	2.00	1.875	2.00
	1.875	1.50	1.625	2.00	1.50	1.625	2.00	2.50	1.875	1.50	2.50	1.625	2.00	3.00	2.125	2.00	1.75	1.50
	2.25	1.75	1.50	2.00	2.00	1.75	1.50	1.25	2.50	1.50	2.50	2.25	2.00	2.00	2.00	2.50	1.375	1.50
	1.375	1.875	2.00	2.50	2.375	2.00	2.00	2.25	2.00	2.00	2.00	1.50	2.50	2.25	2.50	1.75	2.00	1.75
	2.00	1.125	2.00	2.25	2.00	2.00	1.50	1.50	1.75	1.50	2.75	2.00	2.00	2.00	2.00	2.00	1.75	1.875
	1.75	1.50	2.00	2.25	1.50	1.75	1.75	1.875	2.50	3.00	2.50	2.375	1.50	2.50	2.00	2.00	2.00	1.75
	1.375	1.375	1.375	1.50	2.00	1.875	1.75	2.625	2.00	1.625	1.50	2.75	3.00	2.00	1.75	1.375	1.50	1.625
	1.50	1.25	2.25	1.50	1.875	1.50	2.00	2.25	2.375	1.50	2.50	1.75	2.50	2.50	2.50	1.75	1.875	1.625
	1.50	2.375	1.50	2.00	2.00	2.00	2.125	2.50	1.875	1.50	2.50	2.375	1.50	1.75	2.00	1.50	1.375	2.00
	2.00	2.00	1.375	2.00	2.00	2.00	2.00	1.625	1.875	2.00	1.50	1.50	1.875	2.75	2.625	2.00	1.375	1.75
	2.75	1.875	1.25	2.00	1.50	2.00	1.875	2.00	2.875	2.00	2.50	2.75	1.50	2.625	2.50	1.875	2.00	2.875
	1.375	1.625	2.125	1.75	1.75	1.625	2.375	1.75	1.50	2.125	2.50	1.50	2.25	2.50	2.50	2.00	2.00	1.75
	2.375	2.00	2.50	1.50	1.50	2.00	2.375	1.625	2.00	2.00	2.625	2.25	2.375	2.125	2.00	2.00	1.50	1.50
	1.75	1.50	2.50	1.50	2.125	1.50	2.50	2.00	1.50	1.50	1.625	2.75	2.25	2.125	2.125	1.875	2.00	2.00
	1.375	2.00	2.25	2.00	1.50	1.375	2.25	2.375	2.75	2.50	1.75	2.125	3.00	2.25	2.375	1.50	2.25	2.00
	1.50	2.375	1.25	1.875	1.50	1.50	1.625	2.00	1.75	1.75	2.125	1.75	1.875	2.625	3.00	2.00	2.375	2.00
	1.625	1.875	2.25	2.00	2.00	1.625	1.50	2.50	1.875	2.25	1.625	1.50	2.50	2.75	1.50	2.00	2.00	2.00
	1.875	2.125	2.75	1.625	1.75	1.625	2.50	1.50	2.50	1.50	1.75	1.25	3.00	2.00	2.00	2.00	1.75	2.50
	1.625	1.375	1.50	2.25	2.00	1.75	1.75	3.00	2.00	2.50	2.50	2.375	2.25	3.00	2.375	2.00	1.875	2.50
	1.875	2.00	2.00	1.875	2.25	1.75	2.125	1.25	2.25	2.125	2.50	2.75	2.25	1.875	2.25	1.625	2.25	2.00
	1.625	1.50	2.00	1.50	2.125	1.875	1.50	2.625	2.125	2.00	1.25	2.125	1.50	2.375	3.00	1.75	2.00	2.00
	1.625	1.625	1.50	1.50	2.00	2.25	1.875	2.00	2.00	1.00	1.25	1.625	2.00	2.50	2.00	1.875	1.875	1.75
	1.875	2.375	1.625	1.625	1.50	2.25	2.50	2.00	2.00	1.75	1.625	1.25	2.25	2.125	2.00	1.625	2.00	2.00
Totals	88.125	90.75	90.00	91.875	93.125	88.625	92.375	104.125	107.875	97.125	107.50	102.625	108.375	117.125	110.75	92.375	93.375	98.50

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements	B′	2.75	1.0826	B′	2.75	1.0826	B′	3.375	1.3287	B′	3.125	1.2303	B′	3.50	1.3779	B′	2.50	0.9842
	B″	2.625	1.0337	B″	3.00	1.1811	B″	3.00	1.1811	B″	3.50	1.3779	B″	3.50	1.3779	B″	2.375	0.9350
	B‴	3.00	1.1811	B‴	2.25	0.8858	B‴	3.00	1.1811	B‴	3.375	1.3287	B‴	3.375	1.3287	B‴	3.00	1.1811
Highest		3.00	1.1811		3.00	1.1811		3.375	1.3287		3.50	1.3779		3.50	1.3770		3.00	1.1811
Minimum measurements	B′	1.00	0.3937	B′	1.50	0.5905	B′	1.375	0.5413	B′	1.00	0.3937	B′	1.50	0.5905	B′	1.25	0.4921
	B″	1.00	0.3937	B″	1.50	0.5905	B″	1.25	0.4921	B″	1.25	0.4921	B″	1.75	0.6890	B″	1.375	0.5413
	B‴	1.25	0.4921	B‴	1.125	0.4429	B‴	1.50	0.5905	B‴	1.25	0.4921	B‴	1.125	0.4429	B‴	1.25	0.4921
Lowest		1.00	0.3937		1.125	0.4429		1.25	0.4921		1.00	0.3937		1.125	0.4429		1.25	0.4921
Average measurements	B′	1.773	0.6980	B′	1.838	0.7236	B′	1.967	0.7744	B′	1.094	0.4307	B′	2.168	0.8535	B′	1.847	0.7271
	B″	1.815	0.7145	B″	1.983	0.7807	B″	2.082	0.8196	B″	2.15	0.8464	B″	2.342	0.9220	B″	1.867	0.7350
	B‴	1.80	0.7086	B‴	1.773	0.6980	B‴	2.157	0.8492	B‴	2.052	0.8078	B‴	2.215	0.8720	B‴	1.97	0.7755
Average		1.796	0.7070		1.86	0.7322		2.07	0.8149		2.05	0.8070		2.241	0.8822		1.89	0.7440
Measurements above average		72			80			62			58			77			78	
Measurements below average		78			70			88			[illegible]			73			72	

TABLE I.—*Measurements of fineness of wools*—Continued.

ILLINOIS.

	RAMS, 1 YEAR OLD.			RAMS, 2 YEARS OLD.									RAMS, 3 YEARS OLD.					
Catalogue number of samples..	462.			442.			445.			446.			440.			441.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.875	2.00	2.125	1.50	2.125	2.00	2.00	1.75	2.00	1.875	2.00	2.00	2.625	2.00	1.75	2.50	2.25	2.125
	1.625	2.375	1.50	2.375	1.75	2.25	2.00	1.75	1.75	1.375	2.00	1.50	2.125	2.625	2.00	2.25	2.50	2.625
	2.50	2.25	2.00	1.50	2.375	2.00	2.00	2.00	1.625	1.875	1.50	1.75	1.50	1.75	2.125	3.00	2.25	2.625
	2.50	2.50	1.625	1.50	2.00	2.125	2.00	1.875	2.00	1.625	1.625	2.00	1.625	2.00	1.875	2.25	1.875	2.50
	1.75	2.00	2.00	1.50	2.50	1.75	1.875	1.50	1.625	2.00	2.00	2.00	2.875	2.125	1.875	2.25	2.50	2.00
	1.875	2.25	2.00	2.50	2.00	1.875	2.00	1.625	1.50	2.25	2.00	1.75	1.875	2.25	2.00	3.00	2.00	2.50
	1.875	2.50	2.00	2.00	2.50	1.875	2.00	2.50	1.50	2.125	2.50	2.00	2.50	2.00	1.75	2.50	2.50	2.50
	2.125	2.25	2.50	1.375	1.875	2.00	2.25	2.00	2.375	2.00	1.50	1.75	1.50	2.125	1.50	3.00	2.00	2.50
	1.75	2.00	2.00	2.50	2.50	1.75	1.875	1.625	2.00	1.50	2.50	2.50	2.25	2.25	2.00	2.75	1.75	2.375
	2.00	1.75	2.25	2.00	2.125	1.75	2.125	1.75	1.50	2.00	2.50	1.50	2.00	2.00	1.50	3.00	2.50	2.75
	2.50	2.00	2.00	2.00	2.50	2.50	2.00	2.00	1.50	1.375	1.875	2.50	2.00	2.125	1.625	2.75	2.50	2.00
	1.25	2.00	2.375	2.375	3.00	1.25	1.75	1.50	2.125	1.50	1.875	1.875	2.00	2.00	2.00	1.75	2.00	1.625
	2.00	2.00	2.375	1.50	1.625	1.875	2.50	2.00	2.00	1.625	2.00	2.00	1.50	2.00	2.50	1.75	2.125	2.375
	2.25	2.00	2.375	1.75	2.625	2.25	2.125	1.50	1.75	2.00	1.875	1.50	2.00	2.00	2.125	1.75	2.00	2.125
	1.50	2.375	2.375	1.625	2.50	2.25	2.125	1.125	2.50	1.50	1.25	1.50	1.625	2.50	2.50	2.00	2.50	3.00
	1.75	1.50	1.75	1.50	1.75	2.125	1.75	2.00	2.25	1.25	2.125	1.50	2.00	1.75	1.50	1.75	2.75	1.75
	2.00	2.00	1.50	1.75	1.50	1.75	1.625	2.125	1.875	1.50	2.00	1.50	2.50	2.00	2.125	1.50	2.25	2.00
	2.00	2.25	2.50	2.00	1.50	1.75	2.625	1.50	1.75	2.125	2.00	2.00	2.50	2.00	1.50	2.75	2.375	2.125
	2.00	2.375	2.50	2.125	1.875	2.50	2.50	2.00	2.00	2.00	2.125	1.25	1.625	1.875	2.50	2.50	1.625	2.00
	1.50	2.50	2.00	1.50	1.625	2.50	1.875	1.625	2.125	2.00	1.625	2.00	2.50	1.75	2.125	2.00	2.00	2.50
	2.00	1.50	2.00	1.50	1.875	1.875	1.625	2.00	2.125	2.125	2.50	2.00	2.00	1.875	1.875	2.00	2.00	2.00
	2.375	2.00	2.25	1.50	2.625	2.125	2.00	2.25	2.00	1.75	1.875	2.00	2.125	2.25	2.125	2.50	2.00	2.00
	1.75	2.50	1.50	1.50	1.625	2.00	1.875	1.625	2.25	1.25	1.50	2.00	2.00	2.50	2.125	3.00	2.00	2.00
	2.00	1.50	2.125	3.00	2.50	1.75	2.00	2.00	2.00	2.00	1.75	2.00	2.375	2.125	2.00	2.25	2.00	1.875
	2.00	2.00	2.125	1.875	1.50	2.25	1.75	1.375	1.75	2.125	2.00	1.75	2.50	2.50	2.00	2.25	2.00	1.875
	2.125	1.50	2.875	2.25	2.50	1.50	2.00	1.625	2.00	1.75	1.50	2.00	1.375	2.50	2.25	2.00	2.00	3.25
	2.00	2.00	1.75	1.50	1.25	1.50	2.00	1.25	2.00	2.00	1.50	1.75	2.50	2.50	1.75	2.00	2.00	2.50
	1.50	1.50	2.125	1.875	2.00	1.375	2.125	1.625	1.875	1.625	1.375	2.00	2.125	2.875	2.00	2.50	2.00	2.75
	2.00	2.50	2.00	3.00	2.50	2.125	1.50	1.875	2.00	2.00	1.625	2.00	2.00	2.625	2.50	3.00	2.50	2.125
	2.25	2.00	2.50	1.875	2.125	1.50	2.00	1.625	2.00	1.50	2.125	1.00	2.25	1.625	2.50	2.00	2.625	2.50
	2.00	1.50	2.00	2.00	2.00	3.50	2.125	1.875	2.50	2.50	2.00	1.50	1.50	2.625	1.375	2.00	2.00	1.25
	2.00	2.00	2.25	1.625	2.50	2.50	1.875	1.875	1.75	2.00	1.75	1.25	1.50	2.00	2.00	1.875	2.125	2.00
	2.50	2.00	1.50	2.00	2.125	2.50	2.00	1.875	1.75	2.00	1.50	1.25	3.00	3.00	2.00	2.50	2.25	4.125
	2.00	1.50	2.375	1.50	2.00	1.25	2.00	1.50	2.375	1.875	1.625	2.25	1.50	2.50	2.375	2.00	1.875	2.50
	1.75	2.00	2.00	2.25	3.00	1.625	1.875	1.625	2.50	2.125	1.875	2.00	2.25	2.00	2.50	2.00	2.00	2.625
	2.00	1.75	2.00	1.50	2.625	1.25	1.875	1.875	2.00	2.125	2.00	1.50	1.625	2.50	2.50	2.25	2.125	1.875
	1.875	2.00	2.00	1.50	2.00	1.625	1.875	2.00	3.00	2.00	1.75	1.50	2.00	2.00	2.125	2.00	1.875	2.125
	2.50	2.00	2.00	1.75	1.875	2.625	1.75	1.50	3.125	1.875	1.75	1.50	1.50	2.00	1.625	2.00	2.00	2.25
	2.375	1.875	2.50	2.50	2.50	2.00	2.00	2.00	2.00	2.00	2.00	2.00	1.50	2.375	2.50	2.25	2.00	2.625
	2.00	2.125	2.00	1.50	2.00	1.625	1.875	1.875	2.375	2.25	1.375	2.00	2.00	2.00	2.50	2.00	1.75	2.375
	1.875	1.75	2.00	2.00	1.625	1.50	2.375	1.50	2.50	1.50	2.00	2.00	2.00	2.00	1.625	2.00	2.75	2.625
	2.375	1.625	2.50	2.50	1.875	1.875	1.875	2.00	2.00	2.00	1.75	2.00	2.00	2.25	1.75	2.50	2.50	3.00
	2.00	1.50	2.00	1.75	2.00	3.25	1.875	1.75	2.50	1.50	1.375	1.875	2.125	2.50	2.00	2.00	2.00	2.125
	1.50	2.375	2.50	2.50	2.50	1.75	1.625	1.50	2.25	2.125	1.50	1.50	2.50	2.125	1.875	2.00	2.00	2.00
	2.50	1.75	2.50	1.75	2.00	2.00	2.375	1.50	2.50	2.125	2.375	2.50	2.00	2.00	2.375	2.50	2.25	2.00
	2.00	2.00	2.00	1.75	2.50	1.75	2.00	3.125	1.625	1.875	1.625	2.00	1.50	2.50	2.50	1.875	2.50	3.125
	2.50	2.25	1.75	1.625	1.625	1.625	1.50	2.00	2.00	2.50	1.50	1.50	1.375	1.50	2.625	2.00	1.75	2.50
	2.00	1.75	1.50	1.50	1.50	2.125	2.125	1.50	1.75	1.50	2.375	1.50	2.00	2.00	1.625	2.50	2.00	2.50
	2.00	1.75	2.375	1.875	2.375	2.125	1.875	1.75	2.00	1.625	2.00	2.125	1.50	2.50	2.375	2.50	2.00	2.50
	1.75	1.75	2.00	1.75	1.50	2.00	2.00	1.75	2.125	1.625	2.125	2.00	2.125	1.75	2.125	2.00	1.75	3.75
Totals.....	100.125	99.125	104.75	94.125	104.75	98.625	98.25	89.375	102.375	92.75	92.875	92.125	99.875	108.625	102.375	113.25	106.875	117.375

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.50	0.9842	B′	3.00	1.1811	B′	2.625	1.0334	B′	2.50	0.9842	B′	3.00	1.1811	B′	3.00	1.1811
	B″	2.50	0.9842	B″	3.00	1.1811	B″	3.125	1.2303	B″	2.50	0.9842	B″	3.00	1.1811	B″	2.75	1.0826
	B‴	2.875	1.1318	B‴	3.50	1.3779	B‴	3.125	1.2303	B‴	2.50	0.9842	B‴	2.50	0.9842	B‴	4.125	1.6240
Highest.....		2.875	1.1318		3.50	1.3779		3.125	1.2303		2.50	0.9842		3.00	1.1811		4.125	1.6240
Minimum measurements.	B′	1.25	0.4921	B′	1.375	0.5413	B′	1.375	0.5413	B′	1.25	0.4921	B′	1.375	0.5413	B′	1.50	0.5905
	B″	1.50	0.5905	B″	1.25	0.4921	B″	1.125	0.4429	B″	1.25	0.4921	B″	1.50	0.5905	B″	1.625	0.6397
	B‴	1.50	0.5905	B‴	1.25	0.4921	B‴	1.50	0.5905	B‴	1.00	0.3937	B‴	1.375	0.5413	B‴	1.25	0.4921
Lowest		1.25	0.4921		1.25	0.4921		1.125	0.4429		1.00	0.3937		1.375	0.5413		1.25	0.4921
Average measurements..	B′	2.003	0.7885	B′	1.882	0.7409	B′	1.965	0.7736	B′	1.855	0.7303	B′	1.997	0.7862	B′	2.265	0.8917
	B″	1.983	0.7807	B″	2.095	0.8248	B″	1.788	0.7039	B″	1.857	0.7311	B″	2.172	0.8551	B″	2.137	0.8413
	B‴	2.095	0.8248	B‴	1.972	0.7763	B‴	2.047	0.8059	B‴	1.842	0.7251	B‴	2.047	0.8059	B‴	2.347	0.9240
Average		2.03	0.7992		1.98	0.7795		1.93	0.7598		1.85	0.7283		2.072	0.8157		2.24	0.8818
Measurements above average..		51			76			78			87			67			72	
Measurements below average..		99			74			72			63			83			78	

TABLE I.—*Measurements of fineness of wools*—Continued.

ILLINOIS.

	EWE, LAMB.	EWES, 1 YEAR OLD.											EWES, 2 YEARS OLD.		
Catalogue number of samples..	481.	477.			478.			479.			480.			463.		
Number of section.....	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.
Actual measurement in centimillimeters.	1.875	1.625	1.625	2.50	1.75	2.00	2.50	1.50	1.50	1.75	2.00	1.50	2.375	2.50	3.875	1.50	2.25	2.375
	2.25	1.75	2.125	2.25	1.75	2.375	1.875	1.625	1.75	2.00	1.625	1.875	2.375	1.50	2.50	1.875	1.50	2.25
	2.00	2.00	1.50	1.75	2.00	1.75	2.75	1.75	2.375	2.25	2.00	2.375	2.00	1.875	1.75	1.75	2.00	2.00
	1.625	1.625	2.375	1.50	1.50	2.375	2.00	2.50	2.25	1.875	2.50	1.50	2.00	1.625	2.00	2.375	2.25	1.625
	1.75	1.625	2.25	2.00	2.00	2.00	1.50	2.375	2.00	2.00	2.375	1.625	1.50	2.00	1.75	2.00	2.00	2.25
	1.625	1.875	1.875	1.50	2.00	2.00	1.625	1.625	1.875	1.875	2.00	1.625	1.625	1.75	1.625	1.50	1.75	3.00
	2.00	1.50	1.50	2.25	2.50	1.50	1.875	1.75	2.25	1.50	1.625	1.50	1.50	2.00	2.25	2.375	1.75	1.50
	1.75	2.25	2.125	1.625	1.75	1.75	1.50	2.375	2.00	1.50	1.50	1.625	2.25	1.625	2.00	1.875	2.00	2.00
	1.50	1.75	1.875	2.00	2.00	2.00	2.00	1.75	2.375	1.50	1.50	1.50	2.00	1.875	1.75	2.025	1.75	3.00
	2.00	2.125	2.00	2.00	1.625	1.625	2.00	1.50	2.00	2.125	2.125	2.125	1.50	2.25	2.00	1.50	2.25	2.00
	1.75	1.50	2.25	1.25	1.50	1.75	2.00	2.00	1.875	1.75	1.875	2.00	2.125	1.875	1.75	2.00	2.375	2.25
	1.625	1.625	1.75	1.75	1.75	2.25	2.25	1.75	2.00	1.75	2.50	2.25	1.75	2.625	1.75	2.375	2.25	1.875
	1.875	1.50	2.75	1.25	1.50	1.50	1.625	2.50	1.75	2.25	2.00	2.375	2.00	2.125	1.625	2.00	2.00	2.00
	2.375	2.25	1.875	1.625	2.00	2.00	2.75	2.00	1.875	2.00	2.375	2.00	1.875	2.00	2.375	2.00	1.75	1.875
	1.625	1.50	1.50	1.50	1.50	2.00	2.875	1.75	2.75	2.00	2.00	1.875	2.00	1.50	1.625	2.375	1.875	2.50
	1.50	1.75	2.00	1.625	1.875	2.00	2.25	2.00	2.00	1.625	1.50	2.00	2.125	2.00	1.75	1.75	2.50	2.00
	2.00	1.50	1.875	1.625	2.125	1.875	2.125	1.75	2.375	1.50	2.00	2.00	2.125	1.75	1.50	1.50	2.25	1.50
	1.625	1.75	2.25	1.625	1.50	2.00	1.75	2.25	2.375	1.50	2.00	2.00	1.625	1.50	1.75	2.50	2.50	1.625
	1.50	1.50	1.50	1.75	1.50	1.75	2.25	1.625	1.25	1.75	2.50	1.875	2.00	1.375	1.50	1.75	1.625	1.75
	1.625	1.50	1.625	1.875	1.50	1.50	1.75	1.50	1.875	1.50	2.00	1.50	1.875	2.00	2.625	1.50	1.50	1.50
	2.00	2.375	1.50	1.50	1.50	2.00	2.375	1.875	1.875	1.875	1.625	2.25	2.50	1.875	2.125	2.25	2.25	1.50
	2.00	1.50	2.00	2.00	1.50	1.50	2.25	1.75	2.50	1.75	2.00	1.75	2.00	1.50	3.00	1.75	1.625	2.00
	1.75	2.00	1.875	1.875	2.00	1.50	2.25	2.125	1.375	1.625	1.50	1.50	2.00	2.875	2.50	2.50	1.375	1.50
	1.50	1.875	1.875	2.50	1.75	1.50	2.00	0.75	2.00	2.00	1.625	2.00	1.50	2.00	2.00	1.75	2.00	3.00
	1.25	1.75	2.375	1.75	3.00	1.50	1.625	1.25	2.00	2.125	1.375	2.00	1.50	2.125	2.50	1.625	2.00	2.00
	1.50	1.625	2.25	2.50	2.00	2.00	1.625	1.875	2.00	3.00	1.75	1.625	2.25	2.00	2.50	2.50	1.50	3.00
	1.50	2.00	1.375	1.625	3.375	1.375	2.125	1.875	1.875	1.50	1.50	2.00	1.625	1.875	2.00	2.25	2.25	2.00
	1.375	1.50	1.75	2.375	1.50	1.875	1.875	1.375	2.00	2.00	1.50	2.00	2.00	2.375	2.00	2.50	2.50	2.00
	1.50	1.875	1.875	1.125	2.00	1.75	1.625	2.25	1.75	2.25	2.50	2.375	1.75	2.625	1.50	1.75	2.00	3.00
	1.625	1.50	2.125	1.75	1.50	1.50	1.625	1.50	2.875	2.00	1.50	2.25	2.00	1.50	2.00	2.00	1.75	1.75
	1.75	1.875	1.375	1.25	1.50	2.00	2.50	2.00	1.50	1.75	2.125	2.125	1.75	1.625	2.00	2.50	2.25	3.00
	1.50	2.125	1.25	2.25	1.875	1.50	1.625	1.875	2.125	2.25	2.00	2.125	1.75	1.75	2.50	2.00	2.50	3.00
	1.75	1.75	1.375	1.75	2.00	2.25	2.25	1.875	1.625	1.75	2.50	2.50	2.50	1.875	1.875	2.50	2.25	2.25
	1.50	2.00	2.00	2.00	2.00	2.00	2.00	1.875	1.625	2.00	1.75	2.375	1.625	1.50	2.00	2.25	2.125	1.75
	1.875	2.00	1.25	1.75	2.00	2.00	2.375	2.375	1.50	1.75	1.875	1.75	1.875	1.75	2.00	2.25	2.50	2.00
	2.00	1.75	1.75	1.50	1.875	1.75	2.00	1.625	1.50	1.50	2.50	2.00	2.00	1.75	1.75	2.00	2.50	2.625
	2.00	2.00	1.625	2.00	1.50	2.00	1.75	1.75	2.00	2.00	2.00	1.50	1.625	2.25	1.75	1.75	2.00	1.75
	1.625	1.625	1.25	1.75	2.125	1.50	1.75	2.125	1.875	2.50	1.75	2.25	1.875	1.75	2.125	2.00	2.25	2.125
	1.00	1.50	1.75	1.375	1.625	1.75	2.00	1.875	1.50	1.50	1.50	1.625	1.625	1.50	1.625	2.625	2.375	1.625
	2.00	2.00	2.25	1.75	1.75	2.00	1.75	2.125	2.25	2.50	1.875	1.75	2.00	1.75	2.125	2.50	2.25	2.00
	2.00	1.875	1.75	1.625	1.75	1.75	1.75	1.625	1.50	1.75	2.00	1.75	1.50	1.50	2.125	2.00	2.25	1.875
	1.625	2.00	1.75	1.75	2.00	1.75	2.00	2.25	1.875	1.75	2.00	2.125	1.625	1.625	3.00	2.00	2.00	2.50
	1.75	2.00	1.50	2.00	2.625	2.00	1.50	1.75	1.75	2.00	1.75	1.625	2.00	2.00	1.875	1.625	2.00	1.75
	1.875	1.50	1.75	2.25	1.875	2.00	2.00	1.75	2.25	2.25	1.625	1.75	1.75	2.50	1.875	1.75	2.25	2.00
	1.50	1.75	1.50	2.00	1.75	2.50	2.375	1.50	1.50	1.125	1.625	2.625	2.875	2.00	2.375	2.375	2.25	2.00
	1.625	1.625	2.00	2.00	2.00	1.625	2.125	2.125	1.75	1.75	1.50	2.125	1.50	2.00	2.375	1.875	2.00	1.875
	1.875	1.625	1.50	1.50	2.00	1.875	2.00	1.625	2.00	1.50	1.75	1.75	1.025	1.50	2.75	2.00	2.25	2.00
	2.125	2.00	2.00	2.00	2.50	2.00	2.00	2.00	1.50	3.00	1.50	1.625	1.50	1.50	2.25	2.375	1.50	1.75
	1.625	1.875	1.875	1.875	1.75	1.625	2.375	1.375	2.25	2.00	1.50	1.75	1.625	2.50	1.625	2.125	1.625	1.625
	2.50	1.625	2.00	1.50	1.50	1.75	2.00	1.625	2.00	1.75	1.625	2.375	1.50	2.125	1.625	2.875	2.00	1.50
Totals	86.375	89.00	92.125	89.50	95.00	92.875	100.25	90.875	96.625	94.50	93.375	90.375	93.875	92.75	103.375	103.875	102.75	103.625

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B'	2.50	0.9842	B'	2.50	0.9842	B'	2.75	1.0826	B'	3.00	1.1811	B'	2.875	1.1318	B'	2.875	1.1318
	B''	2.375	0.9350	B''	3.375	1.3287	B''	2.50	0.9842	B''	2.50	0.9842	B''	2.875	1.1318	B''	2.50	0.9842
	B'''	2.75	1.0826	B'''	2.375	0.9350	B'''	2.875	1.1318	B'''	2.625	1.0334	B'''	3.875	1.5255	B'''	3.00	1.1811
Highest.....	.....	2.75	1.0826	.....	3.375	1.3287	.....	2.875	1.1318	.....	3.00	1.1811	.....	3.875	1.5255	.....	3.00	1.1811
Minimum measurements.	B'	1.00	0.3937	B'	1.125	0.4429	B'	1.375	0.5413	B'	1.125	0.4429	B'	1.50	0.5905	B'	1.50	0.5905
	B''	1.50	0.5905	B''	1.50	0.5905	B''	0.75	0.2953	B''	1.375	0.5413	B''	1.375	0.5413	B''	1.375	0.5413
	B'''	1.25	0.4921	B'''	1.375	0.5413	B'''	1.25	0.4921	B'''	1.50	0.5905	B'''	1.50	0.5905	B'''	1.50	0.5905
Lowest	.....	1.00	0.3937	.....	1.125	0.4429	.....	0.75	0.2953	.....	1.125	0.4429	.....	1.375	0.5413	.....	1.375	0.5413
Average measurements..	B'	1.73	0.6811	B'	1.79	0.7047	B'	2.063	0.7993	B'	1.89	0.7440	B'	1.88	0.7401	B'	2.077	0.8181
	B''	1.78	0.7007	B''	1.90	0.7480	B''	1.82	0.7165	B''	1.86	0.7322	B''	1.86	0.7322	B''	2.005	0.8090
	B'''	1.84	0.7244	B'''	1.86	0.7322	B'''	1.93	0.7598	B'''	1.93	0.7518	B'''	2.16	0.8508	B'''	2.072	0.8157
Average	.....	1.78	0.7007	.....	1.85	0.7283	.....	1.938	0.7581	.....	1.89	0.7440	.....	1.93	0.7598	.....	2.07	0.8146
Measurements above average..	.....	66		.....	71		.....	73		.....	70		.....	75		.....	59	
Measurements below average..	.....	84		.....	79		.....	77		.....	85		.....	73		.....	61	

TABLE I.—*Measurements of fineness of wools*—Continued.

	ILLINOIS.																	
	EWES, 2 YEARS OLD.																	
Catalogue number of samples..	464.			465.			466.			467.			468.			469.		
Number of section	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.
Actual measurement in centimillimet	1.50	2.125	1.625	1.50	1.50	1.375	2.00	2.00	2.00	1.875	2.00	1.50	1.375	2.00	1.875	2.125	2.00	2.00
	1.50	1.50	2.00	1.375	1.50	1.375	3.125	1.50	2.00	1.875	1.625	2.125	1.25	2.50	1.50	2.875	2.125	1.50
	2.00	2.00	2.00	1.375	1.50	1.00	1.625	2.00	2.25	1.875	1.50	2.50	1.375	1.50	1.875	1.75	2.375	2.00
	2.00	1.875	1.50	1.375	1.625	1.00	2.50	2.00	2.25	1.625	2.50	1.50	2.50	1.50	1.50	1.75	2.00	1.50
	1.125	1.875	2.00	1.625	1.50	1.50	2.25	1.50	1.75	2.00	1.75	1.50	1.875	1.375	1.75	1.375	1.625	1.50
	1.375	1.50	2.00	1.375	1.50	1.50	2.375	2.125	1.625	1.625	1.50	1.50	1.50	1.625	1.625	1.625	2.125	2.00
	1.50	1.75	1.75	1.625	2.00	1.75	1.50	1.625	1.875	1.50	1.50	2.625	1.875	1.375	1.125	2.375	1.75	1.625
	1.50	2.00	2.00	1.625	1.75	1.375	2.00	2.50	2.00	1.75	1.75	2.125	1.75	1.50	1.50	1.875	2.25	1.875
	1.625	2.00	2.00	1.75	1.625	1.875	1.875	1.50	1.50	1.875	1.75	2.00	1.625	2.50	2.50	2.25	2.75	1.375
	1.375	1.75	2.00	1.50	1.50	1.875	1.00	2.00	1.375	1.375	1.625	1.625	1.375	1.125	1.50	2.00	2.625	2.50
	1.50	1.75	2.125	2.00	1.375	2.375	1.75	2.25	1.50	1.75	2.50	2.375	1.875	1.125	2.125	2.25	1.50	2.00
	1.50	2.00	1.75	1.875	1.375	2.125	1.875	1.75	1.625	1.875	1.50	1.625	1.50	1.375	2.00	2.25	1.625	1.50
	1.25	2.00	2.00	1.75	1.50	1.50	1.625	2.00	1.375	1.875	1.625	1.75	1.875	1.50	2.50	1.875	3.00	1.50
	1.875	2.00	1.75	1.625	1.50	1.75	1.625	1.25	1.50	1.50	1.875	1.375	2.25	1.50	1.75	1.75	1.625	2.00
	1.75	2.00	1.50	1.375	2.00	1.50	1.50	2.00	1.50	1.875	2.375	2.875	1.50	2.50	1.50	1.75	2.125	2.00
	1.50	1.75	1.625	2.00	1.625	1.50	1.625	1.875	1.50	1.75	1.50	1.625	1.125	1.25	1.50	1.875	1.875	1.50
	1.625	2.00	1.50	1.25	1.50	1.625	1.375	2.00	1.875	1.75	1.875	1.875	1.25	1.875	2.125	2.00	2.00	1.375
	1.50	1.875	1.50	1.375	1.375	1.375	1.50	2.625	2.00	1.625	1.25	2.00	1.125	2.00	1.50	1.50	2.625	1.375
	1.125	1.75	1.875	2.00	1.25	1.25	2.125	2.00	2.625	1.625	1.875	1.50	1.375	1.50	1.125	1.625	2.375	1.125
	1.25	1.625	1.50	1.50	1.50	1.75	1.75	1.625	1.75	1.50	1.25	2.125	1.50	1.50	1.875	1.625	1.625	2.00
	1.50	2.00	2.00	1.625	1.625	1.50	1.875	1.50	3.625	1.375	2.125	1.50	1.50	2.00	2.25	2.875	2.00	2.25
	1.75	1.75	2.00	1.50	2.25	1.25	2.375	2.00	1.50	1.75	1.375	1.75	1.375	1.50	1.50	2.125	3.25	2.00
	1.25	2.50	1.50	1.50	1.50	1.75	1.75	2.00	2.125	1.375	1.125	1.875	1.50	1.50	1.75	1.875	2.875	1.375
	1.625	2.50	2.375	1.50	2.00	1.50	1.25	2.00	2.375	1.625	2.00	2.60	2.375	1.625	1.125	2.375	2.625	1.50
	1.125	1.75	2.00	1.125	1.50	1.375	1.625	1.875	2.00	1.50	1.875	1.25	1.50	1.50	1.50	1.75	2.625	1.625
	1.25	1.625	2.00	1.875	1.50	1.50	1.625	1.75	2.50	1.375	1.75	1.75	1.625	1.25	1.125	1.75	1.375	1.75
	1.375	3.00	2.125	2.00	1.375	1.50	1.50	2.00	1.75	1.625	1.75	1.625	1.25	1.50	2.25	2.50	1.625	1.25
	1.25	1.50	1.50	2.25	1.50	1.625	1.50	2.875	2.375	1.375	1.875	2.25	1.50	1.50	1.25	1.625	2.00	1.00
	1.375	1.375	1.875	2.25	1.50	1.50	1.50	1.75	1.50	2.375	1.75	2.125	2.00	1.50	2.125	1.625	2.25	2.00
	1.25	2.00	2.00	1.125	2.00	1.625	2.00	1.50	2.75	1.875	1.625	1.75	1.50	2.00	1.875	2.00	2.75	1.50
	1.375	1.625	1.50	1.25	1.875	1.50	1.375	2.125	2.00	2.00	1.875	1.375	1.625	2.00	1.125	2.25	1.875	1.50
	2.375	2.375	1.875	1.375	1.50	1.875	1.375	2.00	1.75	1.75	2.25	2.125	1.50	1.75	1.625	1.75	1.50	2.00
	1.75	2.25	2.00	1.50	1.50	1.625	1.50	2.00	2.25	2.125	1.50	1.875	1.125	1.375	1.50	2.25	2.00	1.50
	1.50	2.75	2.00	1.625	1.625	1.75	1.125	2.00	2.50	1.625	1.625	1.625	1.50	1.25	1.125	1.875	1.625	1.50
	1.50	2.00	1.50	1.75	1.375	1.375	2.00	1.50	1.875	1.75	2.00	1.875	1.875	1.75	1.50	2.00	1.50	1.875
	1.375	1.50	2.00	2.125	1.50	1.25	1.50	1.875	2.00	1.875	2.00	1.625	1.50	1.125	1.50	1.75	2.125	2.00
	1.625	1.375	1.875	1.75	2.00	1.375	4.00	2.00	1.875	1.875	1.375	2.00	1.75	2.25	1.125	1.75	1.625	1.50
	1.125	2.00	2.50	2.00	1.50	1.375	1.125	1.625	2.00	1.75	2.00	1.875	1.125	1.50	1.625	1.75	1.75	1.125
	1.00	1.75	2.25	2.50	1.625	1.375	1.75	2.00	1.625	1.75	1.625	2.25	1.25	1.375	1.25	1.75	1.875	1.875
	1.625	1.50	2.00	1.625	1.625	2.25	2.00	1.875	2.00	1.875	1.875	1.125	1.25	1.375	1.625	1.375	1.375	1.50
	2.50	1.625	2.125	1.75	1.625	2.00	1.875	2.125	2.625	2.375	1.50	1.75	1.375	1.50	1.50	2.25	2.00	1.50
	1.875	2.00	1.875	1.25	1.625	1.25	2.00	2.00	1.50	2.125	1.875	1.50	1.375	1.75	1.125	1.75	2.00	1.375
	1.50	1.875	2.00	2.50	1.375	1.125	2.00	2.00	1.875	1.625	2.375	1.875	2.00	2.00	2.125	1.625	1.50	1.125
	1.75	1.75	2.50	1.50	2.00	1.375	1.50	2.25	2.00	1.75	2.00	3.00	1.75	1.125	1.875	1.875	2.00	1.50
	1.25	1.50	1.875	2.25	1.75	1.50	2.00	1.75	1.50	2.50	2.25	1.75	1.25	1.50	1.50	1.50	1.50	1.50
	2.50	1.50	1.875	2.00	1.50	2.00	1.875	1.75	2.00	1.75	2.00	1.25	1.50	1.625	1.875	2.00	2.00	1.50
	1.125	2.00	1.50	1.375	1.50	1.50	1.625	1.625	2.125	1.50	1.625	1.875	1.375	2.00	1.875	1.75	2.00	1.875
	1.50	2.00	1.875	1.50	1.75	1.625	1.625	2.00	1.75	1.75	1.50	1.50	1.75	1.625	1.375	1.375	1.125	1.50
	1.25	1.50	1.625	1.375	2.25	1.875	1.50	2.50	2.00	1.875	1.625	1.50	1.75	1.875	2.50	1.625	1.50	2.25
	1.25	2.00	1.50	1.375	2.00	1.50	2.375	2.00	1.50	1.875	1.625	1.50	1.50	1.50	1.375	2.50	1.75	1.50
Totals	75.875	94.00	93.625	83.00	81.25	77.50	90.125	96.375	97.125	88.25	88.875	91.25	78.125	82.375	82.625	95.75	99.00	82.50

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B'	2.50	0.9842	B'	2.50	0.9842	B'	4.00	1.5748	B'	2.50	0.9842	B'	2.50	0.9842	B'	2.875	1.1318
	B''	3.00	1.1811	B''	2.25	0.8858	B''	2.875	1.1318	B''	2.50	0.9842	B''	3.00	1.1811	B''	3.25	1.2795
	B'''	2.50	0.9842	B'''	2.375	0.9350	B'''	3.625	1.4271	B'''	3.00	1.1811	B'''	2.50	0.9842	B'''	2.50	0.9842
Highest		3.00	1.1811		2.50	0.9842		4.00	1.5748		3.00	1.1811		3.00	1.1811		3.25	1.2795
Minimum measurements.	B'	1.00	0.3937	B'	1.125	0.4429	B'	1.00	0.3937	B'	1.375	0.5413	B'	1.125	0.4429	B'	1.375	0.5413
	B''	1.25	0.4921	B''	1.25	0.4920	B''	1.25	0.4921	B''	1.125	0.4429	B''	1.125	0.4429	B''	1.125	0.4429
	B'''	1.50	0.5905	B'''	1.00	0.3937	B'''	1.375	0.5413	B'''	1.125	0.4429	B'''	1.125	0.4429	B'''	1.00	0.3937
Lowest		1.00	0.3937		1.00	0.3937		1.00	0.3937		1.225	0.4429		1.125	0.4429		1.00	0.3937
Average measurements..	B'	1.51	0.5944	B'	1.66	0.6535	B'	1.802	0.7094	B'	1.765	0.6948	B'	1.562	0.6149	B'	1.915	0.7539
	B''	1.88	0.7401	B''	1.625	0.6397	B''	1.927	0.7586	B''	1.777	0.6996	B''	1.647	0.6484	B''	1.98	0.7795
	B'''	1.872	0.7374	B'''	1.55	0.6102	B'''	1.942	0.7645	B'''	1.825	0.7185	B'''	1.652	0.6503	B'''	1.65	0.6496
Average		1.754	0.6905		1.611	0.6242		1.89	0.7440		1.789	0.7143		1.62	0.6377		1.838	0.7236
Measurements above average..		67			67			71			65			60			74	
Measurements below average..		83			83			79			85			90			76	

TABLE I.—*Measurements of fineness of wools*—Continued.

	ILLINOIS.																	
	EWES, 2 YEARS OLD.															EWES, 3 YEARS OLD.		
Catalogue number of sample...	470.			471.			472.			473.			474.			475.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.125	1.50	3.00	2.25	2.125	2.00	1.25	2.00	1.75	2.00	2.125	2.625	2.375	3.00	2.75	2.125	1.75	2.50
	1.00	2.00	2.50	1.75	1.50	2.00	2.25	2.00	1.625	2.00	1.50	2.00	2.00	2.00	2.125	1.625	2.375	1.625
	1.50	1.50	1.75	1.75	1.25	2.00	1.625	2.75	2.50	3.00	3.00	1.875	2.00	3.00	2.00	1.625	2.25	2.125
	1.875	2.00	1.375	2.125	2.50	2.00	1.75	2.25	1.75	2.00	2.00	2.00	2.125	2.50	3.00	1.50	1.625	1.875
	1.625	2.125	1.625	2.50	2.625	2.00	1.50	2.00	1.75	1.75	2.50	2.75	2.00	3.00	2.50	2.00	1.875	2.00
	1.25	2.50	1.625	2.00	1.50	2.00	2.50	2.25	1.625	2.25	3.00	2.125	1.50	2.00	2.50	1.75	2.50	2.25
	2.00	1.50	2.25	2.00	2.00	2.50	1.875	2.00	1.75	2.00	2.125	2.50	1.75	2.75	2.25	1.75	1.875	1.875
	2.00	2.00	2.00	2.25	1.75	2.00	1.625	2.00	2.00	2.00	2.00	2.00	1.75	2.50	2.25	1.875	1.375	1.375
	1.50	1.75	1.625	2.00	2.00	1.50	1.875	2.00	2.00	2.00	2.25	2.25	2.00	2.00	2.125	1.625	2.00	1.75
	1.50	1.625	1.75	2.00	1.75	2.125	1.50	1.50	2.50	2.25	2.50	2.25	2.375	2.25	3.25	1.50	2.125	2.00
	1.375	1.625	2.25	2.50	1.875	2.375	2.125	1.875	1.75	2.00	2.00	2.875	2.00	2.125	3.125	2.125	1.625	1.50
	1.50	1.875	1.875	2.25	1.75	3.00	2.00	2.375	2.125	2.375	2.00	2.125	2.00	2.00	2.00	1.75	2.50	2.375
	1.25	1.75	2.25	2.00	1.50	2.00	1.75	2.50	2.00	1.50	2.25	2.25	1.25	2.25	2.50	1.75	2.00	1.50
	1.625	1.50	2.00	2.00	1.875	2.50	2.125	1.875	2.50	2.50	2.50	2.00	2.50	2.00	3.00	1.875	1.75	1.50
	1.75	2.625	1.75	1.75	2.00	2.125	2.125	2.00	2.25	2.25	2.75	2.00	1.625	1.75	2.625	1.50	1.125	2.125
	1.50	2.50	2.00	1.50	1.75	3.00	2.50	2.00	2.00	1.75	2.25	2.00	2.25	2.25	3.00	1.50	2.00	1.875
	1.75	2.50	2.00	2.00	2.50	2.25	1.50	2.375	2.00	2.125	2.25	2.00	1.625	1.75	2.375	1.875	2.125	2.25
	1.125	1.50	2.00	2.50	2.50	1.75	2.00	2.00	2.125	2.50	1.875	2.75	2.00	3.25	2.125	1.875	2.50	1.875
	1.50	1.625	2.00	1.75	1.50	2.50	1.50	1.875	1.50	2.50	2.00	2.00	2.125	2.25	2.625	1.75	1.875	2.125
	1.50	1.75	2.00	2.25	2.00	2.00	1.625	2.25	2.25	2.00	2.25	1.75	2.50	2.50	3.00	2.50	2.00	2.00
	1.875	2.50	2.00	2.00	2.00	2.00	3.00	2.00	2.375	1.50	2.00	2.875	1.50	2.50	3.00	1.50	2.00	1.50
	1.50	1.50	2.00	2.00	1.50	1.75	1.50	1.875	1.875	2.00	2.00	2.125	2.375	2.25	2.50	1.625	2.00	1.625
	2.00	2.50	2.00	1.50	1.875	2.00	2.625	1.75	2.25	2.50	1.75	2.375	2.375	2.75	2.00	1.50	2.00	2.375
	1.50	1.75	1.625	1.625	2.125	1.125	1.875	1.50	2.00	2.00	1.625	2.75	2.50	2.25	2.50	1.50	1.625	1.875
	1.50	1.50	1.75	1.50	2.50	2.125	2.00	1.875	2.00	2.50	2.00	2.25	2.00	2.00	2.50	2.00	1.875	1.375
	1.50	2.00	2.00	2.25	2.00	2.00	2.50	1.50	2.00	2.375	1.50	1.625	2.375	2.00	2.00	1.25	2.00	2.25
	1.625	1.50	1.50	2.125	2.50	2.00	1.375	2.00	1.75	2.25	2.00	3.00	1.75	1.75	2.50	2.375	2.00	1.50
	1.50	1.50	2.00	3.50	2.50	1.75	1.50	2.00	2.00	2.00	1.50	2.00	2.00	3.00	2.375	1.50	2.00	1.625
	2.125	2.75	2.00	2.00	2.25	2.375	1.50	2.375	1.875	2.00	2.50	2.25	1.75	2.50	3.00	2.50	1.875	1.875
	1.125	1.75	2.25	2.50	1.625	1.75	2.00	1.50	1.75	2.00	2.00	2.125	2.00	2.375	2.00	1.50	2.00	1.50
	1.50	2.00	1.50	1.25	2.50	2.50	1.75	2.00	2.125	2.00	1.875	2.00	2.50	2.75	2.00	1.50	2.00	2.25
	1.875	2.625	2.00	2.25	2.50	2.50	1.625	1.875	2.125	2.00	1.875	2.375	1.625	3.00	2.00	1.50	2.125	1.875
	1.00	2.75	1.875	1.50	2.50	2.375	2.50	1.625	2.125	2.00	1.75	2.125	1.75	2.00	2.00	1.50	1.625	2.75
	1.625	2.00	2.00	2.00	2.75	1.875	1.50	1.50	2.00	2.00	1.875	2.375	2.00	2.25	2.00	1.50	2.75	1.25
	1.50	1.75	2.00	2.50	1.50	2.125	1.875	1.625	1.875	2.00	2.00	2.00	2.00	3.00	2.00	1.50	2.00	1.875
	1.50	2.50	1.50	2.00	2.50	2.00	2.00	1.75	1.50	2.00	2.00	2.00	2.00	2.00	2.25	1.625	2.50	1.875
	1.50	1.625	1.75	2.50	2.50	2.00	2.375	2.25	2.00	2.25	2.00	2.00	2.00	2.00	2.125	2.125	1.625	1.50
	1.375	1.875	1.75	2.00	1.50	2.00	1.625	1.875	1.625	2.375	2.25	2.625	1.75	2.00	2.50	2.00	1.625	1.625
	1.50	1.75	1.125	2.50	2.00	1.875	1.625	1.875	2.125	2.00	2.00	2.00	2.00	2.125	3.25	1.625	2.50	2.25
	1.50	2.50	2.125	2.50	1.625	2.00	1.50	2.00	2.00	2.125	1.875	2.00	2.00	2.375	2.50	1.50	2.375	1.875
	1.50	2.00	1.625	2.25	2.00	1.50	3.00	2.625	1.50	2.25	1.50	2.00	1.50	2.50	2.75	2.125	1.75	2.00
	1.00	1.50	1.50	2.50	2.00	1.75	2.00	2.00	2.25	2.25	2.25	2.00	2.125	2.00	2.125	1.625	1.875	1.75
	1.875	1.75	1.75	2.125	2.375	2.00	2.00	2.00	1.50	1.50	2.125	2.25	2.00	2.125	1.875	2.375	2.00	2.125
	1.50	2.00	2.25	2.125	1.75	2.00	2.125	1.75	1.75	2.125	2.00	2.125	2.00	2.00	2.625	1.50	2.25	2.25
	1.75	2.375	2.00	2.25	2.00	2.00	1.875	1.75	2.00	2.00	2.00	1.625	2.00	3.00	2.50	2.125	2.00	1.875
	1.50	2.25	2.00	2.75	2.50	1.625	2.625	2.125	2.375	2.00	1.875	2.375	2.00	2.125	3.25	1.625	2.25	2.00
	1.625	2.00	2.00	2.50	2.50	2.00	1.75	1.625	2.50	2.00	1.625	2.00	2.00	2.25	2.125	2.125	3.00	1.50
	1.375	2.00	1.625	2.50	2.25	2.125	2.00	1.625	2.00	2.00	1.75	2.125	2.00	2.00	2.00	2.00	1.625	1.875
	1.625	2.50	1.75	2.50	2.125	1.875	1.50	2.00	2.00	2.00	1.875	2.25	2.00	1.75	2.125	1.50	2.00	2.375
	1.00	1.50	2.00	2.50	2.50	2.00	1.125	2.00	2.50	2.00	1.75	2.25	2.375	2.125	1.75	1.50	2.125	2.25
Totals	75.625	97.25	94.875	103.125	103.00	102.625	95.75	98.50	100.125	101.875	101.75	111.00	103.50	115.375	122.25	88.00	100.125	90.125

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.125	0.8366	B′	3.50	1.3779	B′	3.00	1.1811	B′	2.50	0.9842	B′	2.50	0.9842	B′	2.50	0.9842
	B″	2.75	1.0826	B″	2.75	1.0826	B″	2.75	1.0826	B″	3.00	1.1811	B″	3.25	1.2795	B″	3.00	1.1811
	B‴	3.00	1.1811	B‴	3.00	1.1811	B‴	3.00	1.1811	B‴	3.00	1.1811	B‴	3.50	1.3779	B‴	3.00	1.1811
Highest	.....	3.00	1.1811	.....	3.50	1.3779	.....	3.00	1.1811	.....	3.00	1.1811	.....	3.50	1.3779	.....	3.00	1.1811
Minimum measurements.	B′	1.00	0.3937	B′	1.25	0.4921	B′	1.125	0.4429	B′	1.50	0.5905	B′	1.25	0.4921	B′	1.25	0.4921
	B″	1.50	0.5905	B″	1.25	0.4921	B″	1.50	0.5905	B″	1.50	0.5905	B″	1.75	0.6889	B″	1.125	0.4429
	B‴	1.125	0.4429	B‴	1.125	0.4429	B‴	1.50	0.5905	B‴	1.625	0.6397	B‴	1.75	0.6889	B‴	1.25	0.4921
Lowest	.....	1.00	0.3937	.....	1.125	0.4429	.....	1.125	0.4429	.....	1.50	0.5905	.....	1.25	0.4921	.....	1.125	0.4429
Average measurements..	B′	1.512	0.5952	B′	2.162	0.8511	B′	1.93	0.7598	B′	2.08	0.8188	B′	2.01	0.7913	B′	1.76	0.6929
	B″	1.945	0.7657	B″	2.06	0.8110	B″	1.97	0.7755	B″	2.04	0.8031	B″	2.31	0.9094	B″	2.00	0.7874
	B‴	1.897	0.7468	B‴	2.052	0.8078	B‴	1.99	0.7874	B‴	2.22	0.8749	B‴	2.44	0.9606	B‴	1.92	0.7559
Average	.....	1.785	0.7027	.....	2.095	0.8232	.....	1.961	0.7720	.....	2.11	0.8307	.....	2.25	0.8858	.....	1.89	0.7440
Measurements above average..	.....	64		.....	65		.....	54		.....	66		.....	55		.....	64	
Measurements below average..	.....	86		.....	85		.....	66		.....	84		.....	72		.....	86	

TABLE I.—*Measurements of fineness of wools*—Continued.

	ILLINOIS.									TEXAS.								
	EWES, 3 YEARS OLD.			MISCELLANEOUS EWE SAMPLES.						RAMS, 2 YEARS OLD.								
Catalogue number of samples ..	476.			443.			444.			616.			617.			618.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.625	2.00	2.50	2.00	1.75	2.00	1.875	1.625	2.125	2.00	1.625	2.50	2.00	1.75	2.00	2.00	2.00	1.50
	1.625	1.625	2.125	1.50	2.375	2.50	2.00	2.375	2.00	1.75	1.50	1.75	1.875	2.00	1.75	2.50	2.00	2.125
	1.50	2.125	2.25	2.00	2.00	2.00	1.625	2.25	2.00	1.875	1.75	1.50	2.00	2.00	2.00	3.00	2.125	2.50
	1.875	1.875	1.75	1.75	2.50	2.50	1.50	2.00	2.00	2.00	2.00	1.75	2.00	1.875	1.625	2.75	2.50	2.50
	1.75	2.50	2.00	1.50	2.125	2.00	2.50	1.50	2.00	1.50	1.75	2.125	2.375	1.75	1.625	2.125	2.00	2.25
	1.50	2.125	2.00	2.00	2.125	2.00	1.625	1.50	2.50	2.25	2.00	2.00	2.00	2.00	1.50	2.00	2.00	2.00
	1.50	2.00	2.00	1.625	2.25	2.00	2.00	1.75	2.625	1.50	1.875	2.50	1.875	1.125	1.625	1.75	2.00	2.00
	1.625	1.75	2.125	2.25	2.375	2.00	2.00	2.375	1.625	2.00	1.25	1.75	2.00	2.25	1.875	1.875	2.50	2.50
	1.625	1.50	1.875	1.50	2.00	2.00	1.75	2.50	2.50	2.00	2.00	1.50	1.625	1.50	1.875	2.50	2.50	1.625
	2.375	1.75	2.50	2.375	2.375	2.00	2.00	2.50	2.00	1.75	2.00	1.50	1.75	1.75	2.25	2.00	2.00	2.125
	2.00	2.625	2.00	2.00	2.00	2.00	1.875	2.50	1.75	1.875	1.875	2.50	1.75	2.00	2.00	2.50	2.50	2.50
	1.50	3.00	1.75	2.00	2.00	2.00	2.00	2.75	2.00	1.375	1.75	1.375	1.75	2.25	2.00	1.25	2.25	1.25
	1.25	2.00	2.125	1.875	1.75	2.50	2.50	3.00	2.50	1.875	1.50	3.00	2.00	1.625	1.875	1.50	2.50	2.00
	1.625	2.25	2.00	1.875	1.875	1.75	2.00	2.00	2.00	1.875	2.00	2.75	1.75	1.625	1.75	2.25	1.375	2.00
	1.75	1.75	2.00	1.50	2.25	1.875	2.50	2.25	2.00	1.75	1.875	1.50	1.625	1.75	2.00	2.375	2.50	1.75
	1.75	2.00	2.50	2.00	1.625	2.00	2.00	2.25	1.875	2.00	1.75	2.00	2.50	1.875	1.50	2.25	1.375	2.00
	2.50	2.25	2.125	1.50	1.875	1.875	2.125	2.00	2.50	1.75	1.75	1.75	2.375	2.50	1.50	2.50	2.00	2.00
	1.875	1.625	2.00	2.00	1.50	2.125	2.00	2.50	2.00	1.875	1.125	2.50	2.00	2.00	1.25	2.625	2.625	1.75
	1.875	2.00	1.875	1.625	2.00	1.50	2.50	1.875	1.875	1.50	2.50	2.25	2.00	1.50	1.875	2.50	1.25	2.00
	1.625	2.25	2.00	1.875	1.75	1.50	2.00	2.50	2.00	1.75	2.25	1.625	2.50	1.50	1.75	2.00	2.00	2.00
	2.00	1.75	1.625	1.75	2.00	1.625	2.125	2.00	2.00	2.00	2.00	2.00	1.75	1.75	1.625	2.50	2.00	1.50
	1.75	2.00	2.125	2.375	2.375	1.50	1.875	2.50	2.125	1.625	2.125	2.25	2.50	1.375	1.75	2.375	3.50	2.25
	1.75	1.75	1.625	2.50	2.00	2.00	1.875	2.00	2.50	1.875	2.00	1.50	2.00	1.75	2.00	2.25	1.50	1.875
	1.875	2.25	2.25	2.50	2.00	1.625	2.00	2.00	2.25	2.50	1.875	1.50	2.375	2.00	1.50	2.00	1.50	2.75
	1.625	2.00	2.25	2.125	2.125	1.625	2.50	2.00	2.00	1.875	1.75	1.50	1.625	1.625	1.625	2.125	2.50	1.75
	2.00	2.00	2.00	1.75	2.00	2.125	2.125	2.375	1.625	2.00	1.625	1.75	2.375	1.50	1.625	1.75	1.50	2.50
	2.00	2.875	1.875	2.125	2.375	2.50	1.75	2.25	2.50	2.00	1.50	1.375	1.50	1.625	2.00	1.75	2.50	2.125
	1.75	2.00	2.00	2.00	1.625	2.125	2.00	2.00	2.50	2.50	1.625	2.375	1.75	2.00	1.75	1.875	1.50	2.00
	1.75	2.00	2.00	2.50	2.00	2.00	2.00	2.125	2.00	2.25	1.625	1.625	1.875	1.75	2.25	2.00	2.00	2.125
	1.75	2.00	2.00	2.00	2.375	2.00	2.00	1.875	2.375	1.75	2.50	1.75	2.00	2.00	2.00	1.75	2.00	2.00
	2.00	1.625	2.00	2.50	2.125	2.50	2.00	2.50	2.375	1.875	2.125	1.50	2.00	2.25	1.375	1.375	1.75	1.375
	1.75	2.125	2.00	2.00	1.125	2.00	2.125	1.75	2.00	2.00	1.625	2.00	2.00	1.50	1.875	2.00	1.50	1.50
	1.75	2.125	1.625	2.00	2.00	2.50	1.875	2.00	2.00	1.25	1.625	3.00	2.25	1.25	1.375	1.875	2.00	2.125
	1.875	2.125	2.50	2.25	2.50	1.50	1.75	2.50	2.00	1.50	1.50	2.00	1.75	1.375	2.00	2.75	1.50	2.00
	2.25	2.25	2.875	1.875	1.50	2.375	2.25	2.00	2.00	2.00	1.875	2.25	1.875	1.875	2.50	2.00	1.50	1.50
	1.875	2.00	2.00	2.00	2.125	2.00	2.00	2.00	2.375	1.75	1.50	2.25	2.00	1.625	2.00	1.875	2.00	2.50
	1.50	1.50	2.125	1.75	2.00	2.25	2.00	2.00	2.00	1.875	1.125	2.25	1.875	1.75	2.00	1.50	2.50	1.625
	1.625	2.00	2.00	2.00	1.875	2.00	2.125	2.00	2.375	1.75	1.125	1.75	1.75	1.375	1.75	2.50	2.50	2.50
	1.50	2.00	2.25	2.125	2.25	1.625	1.875	2.00	2.00	2.50	2.50	1.625	1.625	2.00	1.625	3.00	1.75	1.50
	1.625	2.00	2.75	2.125	2.00	2.50	2.50	2.00	1.875	2.75	1.375	1.75	2.00	2.125	1.75	1.75	1.875	2.50
	2.375	1.625	1.75	2.00	2.50	2.50	2.00	2.25	2.00	2.50	2.00	2.00	2.25	1.875	2.50	1.625	2.00	2.00
	2.375	1.875	2.50	2.375	2.00	2.00	2.00	2.375	2.125	2.00	2.00	2.50	1.50	1.75	1.375	1.50	2.00	2.50
	2.375	2.25	2.25	1.75	2.00	1.75	2.25	2.00	2.375	1.875	2.00	2.00	1.50	1.625	1.375	1.75	1.50	2.00
	2.375	2.125	1.875	1.625	2.25	1.75	2.00	3.00	2.50	2.00	2.00	1.875	1.625	1.75	2.00	1.625	1.50	2.25
	1.375	2.00	2.125	1.75	2.125	2.50	2.25	2.75	2.00	1.75	1.875	2.00	2.125	1.875	1.75	1.75	1.50	2.00
	1.50	2.625	2.25	1.875	2.00	1.75	2.00	2.00	2.00	2.00	2.25	2.25	1.625	1.75	1.875	3.00	2.25	2.25
	2.125	2.50	1.75	2.00	2.50	2.00	2.00	2.375	2.00	1.875	1.50	2.00	2.00	1.625	1.75	2.25	2.00	1.50
	1.50	2.125	2.00	2.00	2.00	2.00	2.125	2.00	2.00	1.75	1.625	2.25	2.00	2.00	1.875	2.375	2.00	1.75
	1.50	1.75	1.875	1.75	1.75	2.25	2.25	2.50	2.00	1.75	1.50	2.50	2.00	1.75	1.375	2.625	2.00	2.00
	1.875	2.50	2.125	1.875	2.00	2.00	2.00	2.50	1.875	2.00	2.00	2.25	1.875	1.875	1.50	2.00	1.50	2.25
Totals	91.125	103.75	103.875	98.00	102.00	101.00	102.00	111.625	106.125	95.375	88.875	99.75	97.125	89.00	87.375	106.25	99.625	100.875

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In thousandths of inch.	In centimillimeters.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.625	1.0334	B′	2.50	0.9842	B′	2.50	0.9842	B′	2.75	1.0826	B′	2.50	0.9842	B′	3.00	1.1811
	B″	3.00	1.1811	B″	2.50	0.9842	B″	3.00	1.1811	B″	2.50	0.9842	B″	2.50	0.9842	B″	3.50	1.3779
	B‴	2.875	1.1318	B‴	2.50	0.9842	B‴	2.625	1.0334	B‴	3.00	1.1811	B‴	2.50	0.8842	B‴	2.75	1.0826
Highest	.....	3.00	1.1811	.....	2.50	0.9842	.....	3.00	1.1811	.....	3.00	1.1811	.....	2.50	0.9842	.....	3.50	1.3779
Minimum measurements.	B′	1.25	0.4921	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.25	0.4921	B′	1.50	0.5905	B′	1.25	0.4921
	B″	1.50	0.5905	B″	1.125	0.4429	B″	1.50	0.5905	B″	1.125	0.4429	B″	1.125	0.4429	B″	1.25	0.4921
	B‴	1.625	0.6397	B‴	1.50	0.5905	B‴	1.625	0.6397	B‴	1.375	0.5413	B‴	1.25	0.4921	B‴	1.25	0.4921
Lowest	.....	1.25	0.4921	.....	1.125	0.4429	.....	1.50	0.5905	.....	1.125	0.4429	.....	1.125	0.4429	.....	1.25	0.4921
Average measurements..	B′	1.82	0.7165	B′	1.96	0.7716	B′	2.04	0.8030	B′	1.91	0.7519	B′	1.94	0.7637	B′	2.12	0.8346
	B″	2.07	0.8149	B″	2.04	0.8031	B″	2.232	0.8787	B″	1.77	0.6968	B″	1.75	0.6889	B″	1.99	0.7894
	B‴	2.08	0.8188	B‴	2.02	0.7952	B‴	2.122	0.8354	B‴	1.695	0.7854	B‴	1.74	0.6850	B‴	2.01	0.7913
Average	.....	1.98	0.7795	.....	2.00	0.7874	.....	2.13	0.8385	.....	1.891	0.7444	.....	1.82	0.7165	.....	2.04	0.8031
Measurements above average..	.....	88		.....	50		.....	49		.....	101		.....	74		.....	57	
Measurements below average..	.....	62		.....	100		.....	101		.....	49		.....	76		.....	93	

TABLE I.—*Measurements of fineness of wools*—Continued.

	TEXAS.																					
	RAMS, 2 YEARS OLD.																					
Catalogue number of samples	619.			620.			621.			622.			623.			624.					
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.			
Actual measurement in centimillimeters.	3.00	1.875	2.25	3.50	2.25	2.00	1.875	.75	2.50	2.00	3.00	2.00	2.25	2.125	2.25	2.625	2.50	1.75				
	1.25	1.625	2.00	2.00	1.625	2.00	3.00	1.50	3.00	2.50	1.75	1.75	1.875	1.50	1.875	2.50	2.75	1.625				
	2.00	2.00	2.00	2.50	1.375	2.00	1.75	1.625	2.25	1.75	3.375	2.50	1.75	1.75	1.50	2.625	2.00	1.50				
	2.25	1.50	2.00	3.00	3.00	2.125	2.00	1.50	2.375	2.50	2.50	2.375	3.00	1.50	1.625	2.25	2.25	1.875				
	2.125	1.50	2.375	2.00	2.50	2.25	2.125	1.25	2.50	2.00	2.25	1.50	1.75	1.125	2.00	2.00	2.50	2.25				
	1.625	2.00	2.00	1.375	1.375	2.00	1.875	1.00	2.25	1.875	1.875	1.75	1.875	1.00	2.00	1.875	3.00	2.00				
	1.875	1.625	2.00	2.50	1.50	2.50	2.375	1.50	2.00	2.00	1.50	1.75	3.00	1.625	1.25	1.625	2.00	2.00				
	1.50	2.50	2.50	1.50	1.50	2.375	2.00	1.375	1.875	1.25	1.25	2.50	1.875	1.625	1.25	2.25	2.25	1.375				
	1.50	2.125	1.50	1.875	1.50	1.75	1.25	2.00	2.75	1.75	1.875	2.00	2.375	1.75	2.00	1.75	2.125	1.75				
	2.25	1.75	2.00	2.00	1.25	1.875	1.875	1.625	2.25	2.50	3.00	2.50	1.75	1.50	1.875	2.50	2.00	1.50				
	1.875	2.375	2.00	2.00	1.75	2.00	1.875	1.50	2.00	1.625	2.50	2.25	1.625	3.00	2.00	2.125	1.75	2.125				
	2.00	1.625	1.875	2.00	2.50	2.00	2.00	1.625	2.50	2.50	2.25	2.00	1.75	1.50	1.875	2.375	1.625	1.875				
	2.375	1.875	2.25	2.00	2.25	2.50	1.875	1.375	2.00	1.75	2.00	1.875	1.875	1.75	1.75	2.50	1.875	2.00				
	2.00	1.75	1.875	2.00	1.625	2.25	2.00	1.25	1.875	2.00	2.00	2.75	2.25	1.50	1.875	2.375	1.625	1.875				
	2.125	1.75	1.50	2.25	1.625	2.25	2.00	1.50	1.50	4.875	1.375	2.00	1.75	1.50	2.25	2.375	2.00	1.75				
	2.00	1.625	1.75	2.25	1.625	2.00	2.00	2.00	2.50	2.00	1.50	2.50	2.125	1.75	2.00	1.875	2.00	2.25				
	2.50	2.00	1.375	2.50	2.00	1.375	1.75	2.50	1.75	2.00	1.25	1.875	1.875	2.00	1.375	2.00	2.25	1.50				
	1.75	2.00	2.125	2.00	1.625	1.50	2.00	1.125	2.00	2.50	1.375	1.75	1.25	1.50	1.25	3.00	1.50	1.375				
	1.625	1.75	1.125	2.125	1.75	2.00	1.50	1.50	2.00	2.25	2.25	2.00	1.50	1.50	2.25	2.50	3.00	2.00				
	1.75	2.00	2.00	1.625	2.00	1.375	1.875	2.00	1.875	2.50	1.75	2.50	1.50	1.625	1.50	2.00	2.50	2.125				
	2.25	2.00	1.50	1.875	2.00	1.75	2.25	1.75	1.75	1.75	2.125	1.25	1.50	1.25	1.50	2.125	2.00	2.25				
	1.50	2.00	1.50	1.375	1.625	2.50	2.00	1.375	1.875	1.25	2.00	2.00	2.125	1.50	1.50	1.50	1.75	2.75				
	1.75	2.00	1.50	2.00	2.125	1.625	1.75	1.50	2.50	1.50	1.75	2.00	1.875	2.00	1.375	1.875	1.875	2.00				
	2.00	2.125	1.50	1.625	1.75	2.00	1.875	1.625	2.00	2.00	1.875	1.875	2.00	1.375	2.00	2.125	2.50	2.25				
	2.25	2.50	1.75	2.50	1.625	3.00	2.25	1.75	2.00	2.25	1.75	1.50	2.00	1.875	2.50	2.125	2.50	1.50				
	2.00	2.00	1.50	1.625	2.00	3.00	2.50	1.625	2.50	1.75	1.50	2.50	1.50	2.00	2.75	2.125	1.75	1.50				
	2.75	1.375	1.125	2.00	1.75	2.50	2.00	2.50	1.75	2.00	2.00	2.375	2.50	1.25	2.00	2.00	1.50	2.00				
	2.00	1.875	2.00	2.00	1.75	2.00	2.00	1.75	1.875	1.75	2.25	2.50	1.75	1.50	2.00	2.00	2.00	2.25				
	1.875	2.50	1.875	2.00	2.50	2.50	2.125	2.50	1.75	1.875	1.375	2.50	2.00	1.75	1.625	3.00	2.25	2.00				
	2.25	2.50	1.625	2.00	1.625	2.00	1.625	1.50	2.00	1.50	2.50	2.00	1.875	1.875	2.75	2.50	2.50	2.50				
	2.50	1.75	2.125	1.50	2.00	1.875	2.125	1.25	2.125	1.625	2.50	2.25	2.00	1.50	2.00	1.875	2.00	2.25				
	1.875	2.375	1.375	2.00	1.75	2.00	2.00	2.25	2.00	1.50	2.25	2.50	2.00	2.00	1.50	1.75	2.25	2.00				
	1.75	2.50	1.75	1.50	1.875	1.75	2.50	1.625	2.375	1.375	2.375	2.50	2.00	1.50	1.375	1.625	2.125	2.50				
	1.625	1.75	3.00	2.50	2.00	1.875	2.375	1.375	1.75	2.00	2.00	2.25	1.875	1.75	2.50	2.25	1.50	2.50				
	1.50	1.875	1.625	2.50	1.75	2.25	2.00	1.25	2.00	2.25	2.125	1.50	1.625	2.25	1.625	2.00	2.75	2.50				
	2.25	2.00	1.75	2.25	1.875	2.00	2.50	1.625	2.00	2.00	1.75	1.75	2.50	2.00	1.75	1.875	2.375	2.00				
	1.75	2.50	1.50	2.375	1.50	2.50	2.375	1.375	2.00	2.50	1.875	1.875	1.50	3.50	2.50	1.625	1.50	2.25				
	2.25	2.50	2.125	2.00	3.00	2.25	2.25	1.875	2.50	2.50	1.50	2.50	1.75	2.25	1.50	3.00	3.00	2.875				
	2.00	3.00	1.25	2.25	2.125	2.25	2.50	1.875	2.00	2.00	1.125	2.375	2.00	2.25	1.375	2.125	2.00	2.75				
	2.00	1.75	1.50	2.50	1.375	2.75	2.25	1.50	1.875	1.375	1.50	2.75	2.25	2.00	1.50	2.375	1.50	2.25				
	2.50	1.50	1.125	2.75	1.75	3.00	2.00	2.00	1.875	2.00	2.00	2.00	1.75	1.50	1.50	2.50	2.00	2.00				
	3.00	2.00	2.00	2.25	1.875	3.00	2.50	1.75	1.75	1.50	1.75	1.875	2.00	1.50	1.875	2.00	1.875	2.00				
	2.00	2.125	1.75	2.00	1.75	2.125	2.00	2.00	2.00	2.00	2.25	2.125	1.75	1.375	1.875	2.50	1.75	1.875				
	2.00	1.875	2.00	2.25	1.875	2.50	2.50	1.625	2.25	1.875	2.375	1.00	2.00	1.50	1.50	2.25	1.50	1.50				
	2.15	1.875	1.75	1.75	1.875	2.25	1.875	1.75	2.00	1.75	2.00	1.50	3.00	1.75	1.50	1.125	1.375	1.875				
	2.00	2.00	1.50	2.00	2.00	2.375	3.00	1.75	2.00	2.25	2.50	1.875	2.00	1.875	2.25	3.00	1.625	1.75				
	2.40	1.625	1.375	1.875	1.625	1.75	2.00	1.875	2.25	1.50	2.375	2.00	1.75	1.75	2.875	1.50	2.125	2.50				
	1.50	2.00	2.00	2.50	1.75	2.625	1.75	1.625	1.75	1.625	2.50	2.00	1.875	1.50	1.375	1.875	3.00	2.00				
	1.625	1.375	1.50	2.50	1.875	1.75	1.75	2.00	2.50	1.875	1.75	2.125	1.875	2.00	1.875	2.00	2.00	2.00				
	2.00	2.50	2.50	2.00	2.50	2.50	1.75	2.50	2.00	2.00	2.50	2.00	2.00	1.50	2.00	2.50	2.50	1.875				
Totals	99.125	99.625	91.375	106.375	89.50	109.25	102.50	84.125	103.125	95.75	98.25	103.625	96.625	95.25	93.625	205.25	102.875	102.50				

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	3.00	1.1811	B′	3.50	1.3779	B′	3.00	1.1811	B′	2.50	0.9842	B′	2.50	0.9842	B′	3.00	1.1811
	B″	3.00	1.1811	B″	2.50	0.9842	B″	2.50	0.9842	B″	3.375	1.3287	B″	3.50	1.3779	B″	3.00	1.1811
	B‴	3.00	1.1811	B‴	3.00	1.1811	B‴	3.00	1.1811	B‴	2.75	1.0826	B‴	2.875	1.1318	B‴	3.00	1.1811
Highest		3.00	1.1811		3.50	1.3779		3.00	1.1811		3.375	1.3282		3.50	1.3779		3.00	1.1811
Minimum measurements.	B′	1.25	0.4921	B′	1.50	0.5905	B′	1.25	0.4921	B′	1.25	0.4921	B′	1.25	0.4921	B′	1.125	0.4429
	B″	1.375	0.5413	B″	1.25	0.4921	B″	0.75	0.2953	B″	1.125	0.4429	B″	1.00	0.3937	B″	1.375	0.5413
	B‴	1.125	0.4429	B‴	1.375	0.5413	B‴	1.375	0.5413	B‴	1.00	0.3937	B‴	1.25	0.4921	B‴	1.375	0.5413
Lowest		1.125	0.4429		1.25	0.4921		0.75	0.2953		1.00	0.3937		1.00	0.3937		1.125	0.4429
Average measurements.	B′	1.98	0.7795	B′	2.125	0.8366	B′	2.03	0.8070	B′	1.91	0.7519	B′	1.93	0.7598	B′	2.03	0.8070
	B″	1.99	0.7834	B″	1.79	0.7047	B″	1.68	0.6614	B″	1.96	0.7716	B″	1.90	0.7480	B″	2.05	0.8070
	B‴	1.93	0.7594	B‴	2.185	0.8602	B‴	2.06	0.8110	B‴	2.07	0.8149	B‴	1.87	0.7362	B‴	1.82	0.7165
Average		1.93	0.7598		2.036	0.8015		1.93	0.7598		1.98	0.7795		1.90	0.7480		1.97	0.7755
Measurements above average			81			53			79			87			60			101
Measurements below average			69			97			71			63			90			49

TABLE I.—*Measurements of fineness of wools*—Continued.

	TEXAS.																	
	RAMS, 2 YEARS OLD.			EWES, 2 YEARS OLD.														
Catalogue number of samples..	625.			605.			606.			607.			608.			609.		
Number of section.....	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.
Actual measurement in centimillimeters.	1.875	1.125	2.00	1.50	2.00	1.25	1.25	1.875	1.625	1.50	2.00	1.75	1.25	1.50	2.75	1.50	2.00	3.00
	1.25	1.50	1.375	1.50	2.00	1.50	1.50	2.00	1.75	1.625	2.25	2.25	2.25	2.00	2.375	1.75	1.25	2.25
	1.50	1.50	2.375	1.625	1.25	1.75	1.125	1.125	1.50	1.75	2.620	2.25	1.50	2.00	1.625	1.875	1.00	2.375
	2.50	1.50	2.00	1.75	2.00	1.25	1.625	1.50	1.25	1.625	2.00	2.50	2.00	2.00	2.25	2.125	1.75	2.00
	1.50	1.50	1.875	1.625	2.00	1.625	1.625	1.50	1.25	1.50	2.00	1.50	2.125	1.875	1.50	1.625	1.75	2.00
	1.50	2.50	2.375	2.125	1.375	1.625	1.50	2.00	1.50	1.375	1.875	2.25	1.875	1.75	1.50	1.50	1.50	2.125
	1.50	1.75	1.75	2.125	1.50	2.00	1.625	2.00	1.625	1.50	1.75	2.375	1.50	1.50	2.50	1.75	2.00	2.50
	1.625	1.375	2.125	2.00	1.375	1.25	1.375	2.125	1.75	1.875	1.75	1.75	2.00	1.25	1.50	2.375	1.75	2.625
	2.00	2.00	2.00	2.50	2.00	1.50	1.625	2.25	1.75	2.00	1.625	1.75	1.875	2.375	1.125	1.75	1.50	2.00
	2.75	2.375	2.00	1.875	2.25	1.75	1.75	1.875	2.25	1.875	1.625	1.75	1.625	2.00	2.25	2.00	2.50	2.50
	1.50	2.00	1.625	2.00	1.875	1.625	1.625	1.75	2.375	2.00	2.75	1.75	2.00	1.875	2.00	1.625	1.50	2.00
	1.25	1.625	2.25	2.75	1.625	1.375	1.375	2.00	1.625	1.75	2.00	2.00	2.00	1.875	2.75	1.625	1.75	2.00
	2.00	1.375	2.00	1.50	1.875	1.00	1.50	2.00	1.50	1.625	2.00	2.00	1.75	1.25	2.125	2.00	1.625	1.25
	2.00	1.00	1.75	1.75	1.875	1.25	1.50	1,375	2.25	2.00	1.25	1.875	2.125	2.00	2.50	2.125	1.00	2.375
	1.50	1.50	1.75	1.75	1.875	2.625	1.625	1.75	2.50	1.50	1.50	2.00	1.875	2.00	2.50	1.75	1.25	2.75
	2.00	1.50	1.875	1.00	1.375	1.50	1.00	1.625	1.625	1.75	1.875	2.00	1.75	1.875	2.00	1.50	1.25	1.75
	1.75	1.00	2.50	1.50	2.625	1.625	1.25	1.75	1.75	1.75	1.50	2.25	1.50	2.125	2.25	1.75	2.00	2.00
	2.00	1.875	2.00	1.50	1.50	2.125	1.00	2.375	1.50	1.75	2.00	2.375	2.125	2.50	2.25	1.875	2.00	2.00
	1.50	1.50	2.00	2.25	1.625	1.50	1.00	1.50	1.25	2.00	2.00	2.375	2.00	1.50	2.00	1.875	1.50	1.75
	2.25	2.00	1.875	2.125	1.75	1.625	1.25	1.375	1.50	1.625	2.00	2.00	2.00	1.50	1.625	2.00	1.375	2.25
	2.00	1.875	1.375	1.875	2.50	1.125	1.75	2.00	1.50	2.00	2.375	2.375	1.75	1.50	1.875	2.50	1.50	3.00
	1.50	2.00	2.50	1.50	2.375	2.00	1.00	2.25	1.625	2.125	2.50	1.75	1.875	1.50	2.25	2.25	2.00	1.50
	1.50	1.50	2.00	1.625	2.50	2.25	1.50	2.125	1.75	2.50	1.50	1.75	1.75	2.00	2.00	1.785	1.375	1.75
	1.50	1.875	3.00	1.25	2.50	1.50	1.50	1.375	2.00	1.75	1.75	1.50	2.00	1.875	2.25	1.375	1.00	1.50
	2.25	2.00	2.375	2.00	2.25	1.75	1.625	2.00	2.50	1.625	1.375	1.50	1.75	2.00	2.50	1.75	1.25	1.25
	1.875	1.625	1.50	1.25	2.50	1.875	1.375	2.00	1.50	2.00	1.50	2.50	2.125	1.75	2.50	1.25	2.00	1.625
	1.875	2.00	1.50	1.625	1.75	1.50	1.75	2.125	1.50	2.50	1.50	2.00	1.75	2.125	2.375	1.50	1.875	2.00
	1.75	2.00	1.50	1.25	2.00	1.375	1.75	2.25	1.50	1.75	1.625	2.625	2.00	2.25	1.75	2.00	1.50	1.75
	2.25	1.875	1.625	1.625	1.75	1.50	1.50	2.00	1.625	2.25	2.00	2.25	2.00	2.375	1.75	2.00	1.50	2.00
	2.25	1.875	1.875	1.50	1.375	1.625	1.00	1.75	1.25	2.375	1.75	2.375	1.25	1.375	1.625	2.25	1.50	2.00
	2.75	1.875	1.875	1.50	2.50	1.75	1.625	1.50	2.00	2.50	1.75	3.00	2.00	2.75	1.375	1.375	1.625	2.125
	1.50	1.50	2.00	1.75	1.875	2.00	1.75	2.375	1.50	1.75	1.625	2.125	1.75	2.375	2.25	2.125	1.75	2.00
	1.75	2.00	3.00	2.00	2.375	1.50	1.50	2.25	1.00	1.625	2.75	1.875	1.875	2.125	2.00	1.875	1.75	2.125
	1.875	1.50	2.625	2.125	2.00	2.00	1.75	2.25	1.25	1.50	1.50	1.75	2.375	2.50	1.50	1.875	1.50	1.375
	1.50	1.50	1.375	1.625	2.125	1.50	2.00	2.00	1.75	1.625	1.375	1.50	2.00	1.50	1.75	1.50	1.50	2.00
	2.125	1.75	2.25	2.75	1.50	2.00	1.50	2.00	3.125	2.00	2.00	1.625	1.625	2.375	1.875	1.625	1.00	1.875
	2.00	1.875	2.25	3.00	1.75	1.875	1.125	2.375	1.50	2.125	1.50	1.75	1.50	2.50	2.75	3.00	2.125	1.75
	2.00	2.00	2.125	1.50	1.50	1.625	1.125	2.00	1.00	2.00	1.50	1.75	1.50	2.00	1.50	2.00	2.25	1.75
	2.50	2.00	2.00	1.75	1.875	2.25	2.00	2.125	1.25	1.875	2.25	2.00	1.875	2.25	2.25	2.375	1.50	2.00
	1.75	1.625	2.00	2.00	2.125	2.00	2.00	1.75	1.50	1.75	1.375	2.00	2.00	2.125	2.50	2.00	1.75	1.75
	1.50	2.00	1.50	1.50	1.875	1.25	1.00	1.50	1.625	1.625	1.25	1.75	1.75	3.125	2.25	1.50	2.25	1.625
	1.875	2.00	1.75	1.50	1.875	1.25	1.75	1.50	1.50	2.00	2.00	1.875	2.25	2.00	1.50	1.25	1.875	2.00
	1.00	1.625	2.00	1.75	1.50	1.00	1.75	1.625	1.50	1.875	1.50	1.75	2.00	2.50	1.875	2.25	1.875	1.50
	2.50	1.50	1.625	1.50	2.00	1.00	1.625	2.375	1.625	2.00	1.50	2.00	1.625	2.50	1.50	1.875	2.00	1.25
	1.50	1.875	2.50	1.50	2.125	1.25	1.25	2.25	1.125	2.00	1.50	1.875	2.125	2.00	2.125	1.875	2.00	1.375
	2.50	1.625	2.50	1.875	2.00	1.00	1.625	2.00	1.50	1.25	2.00	1.50	1.875	2.125	2.25	1.75	1.875	1.00
	1.00	2.00	2.00	1.625	1.875	2.50	1.50	2.00	2.00	1.875	2.875	1.625	1.75	2.375	2.00	1.75	2.50	2.00
	1.875	1.625	2.00	1.75	2.00	2.25	1.75	1.625	2.125	3.00	1.50	2.00	1.50	1.875	2.125	1.625	2.00	1.75
	1.50	1.875	2.00	2.00	1.50	1.50	1.75	1.875	1.75	1.25	2.00	1.75	1.625	2.00	2.00	1.875	1.50	2.125
	1.75	1.625	1.625	1.50	1.75	1.75	1.75	2.00	1.75	1.50	1.00	2.125	1.375	1.50	2.00	2.00	2.00	2.25
Totals	91.25	86.50	99.75	88.75	97.375	81.00	75.60	95.00	83.25	90.375	93.50	99.00	91.25	100.00	102.625	931.625	84.375	98.00

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B'	2.75	1.0826	B'	3.00	1.1811	B'	2.00	0.7874	B'	3.00	1.1811	B'	2.375	0.9350	B'	3.00	1.1811
	B''	2.50	0.9842	B''	2.625	1.0334	B''	2.375	0.9350	B''	2.75	1.0826	B''	3.125	1.2303	B''	2.50	0.9842
	B'''	3.00	1.1811	B'''	2.625	1.0334	B'''	3.125	1.2303	B'''	3.00	1.1811	B'''	2.75	1.0826	B'''	3.00	1.1811
Highest	.....	3.00	1.1811	.....	3.00	1.1811	.....	3.125	1.2303	.....	3.00	1.1811	.....	3.125	1.2303	.....	3.00	1.1811
Minimum measurements.	B'	1.00	0.3937	B'	1.00	0.3937	B'	1.00	0.3937	B'	1.25	0.4921	B'	1.125	0.4429	B'	1.25	0.4921
	B''	1.00	0.3937	B''	1.25	0.4921	B''	1.125	0.4429	B''	1.25	0.4921	B''	1.25	0.4921	B''	1.00	0.3937
	B'''	1.375	0.5413	B'''	1.00	0.3937	B'''	1.00	0.3937	B'''	1.50	0.5905	B'''	1.375	0.5413	B'''	1.00	0.3937
Lowest	.....	1.00	0.3937	.....	1.00	0.3937	.....	1.00	0.3937	.....	1.25	0.4921	.....	1.125	0.4429	.....	1.00	0.3937
Average measurements..	B'	1.82	0.7165	B'	1.775	0.6988	B'	1.50	0.5905	B'	1.807	0.7114	B'	1.825	0.7185	B'	1.863	0.7334
	B''	1.73	0.6811	B''	1.948	0.7669	B''	1.90	0.7480	B''	1.87	0.7362	B''	2.00	0.7874	B''	1.688	0.6645
	B'''	1.99	0.7834	B'''	1.620	0.6377	B'''	1.665	0.6555	B'''	1.98	0.7795	B'''	2.052	0.8078	B'''	1.96	0.7716
Average	.....	1.84	0.7244	.....	1.781	0.7011	.....	1.688	0.6645	.....	1.886	0.7425	.....	1.959	0.7712	.....	1.8370	0.7232
Measurements above average..	.....	74		.....	65		.....	69		.....	66		.....	84		.....	76	
Measurements below average..	.....	76		.....	85		.....	81		.....	84		.....	66		.....	74	

UNIVERSITY OF CALIFORNIA

TABLE I.—*Measurements of fineness of wools*—Continued.

TEXAS.

EWES, 2 YEARS OLD.

Catalogue number of samples..	610.			611.			612.			613.			614.			615.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.125	1.00	2.25	2.25	1.75	2.00	1.375	1.00	2.00	1.625	2.125	2.00	3.25	1.50	2.50	2.00	2.125	1.75
	1.50	2.00	1.75	1.50	2.75	2.25	2.00	2.00	1.75	1.75	2.25	2.125	2.00	1.75	1.875	1.875	1.875	2.00
	2.00	1.50	2.00	1.50	2.00	2.50	2.00	1.75	1.625	2.00	1.50	2.25	2.125	2.00	2.00	1.50	1.875	2.25
	2.125	1.25	2.125	1.875	1.50	1.50	2.00	2.00	2.25	1.75	1.50	2.25	1.875	1.625	1.50	2.00	1.625	2.375
	2.00	1.75	1.875	1.75	1.125	1.25	1.625	1.50	2.00	1.875	2.00	2.375	1.50	1.75	2.25	1.875	1.75	1.75
	1.375	2.00	2.00	1.50	2.00	2.00	1.50	1.75	1.75	2.00	1.75	2.125	2.125	1.75	2.125	2.00	1.875	1.875
	1.75	2.125	2.00	2.00	2.125	1.75	1.75	1.875	1.50	1.75	1.50	1.75	2.00	1.875	2.125	2.00	2.00	2.25
	2.00	2.00	1.75	2.125	1.625	1.375	2.00	2.00	2.00	1.75	2.00	1.25	1.75	2.00	2.00	1.50	2.25	1.50
	2.125	1.75	1.50	2.00	2.00	1.75	1.625	1.50	2.25	1.875	1.625	2.00	1.50	1.75	2.25	1.50	2.00	1.50
	1.75	1.50	1.875	2.25	1.25	2.00	1.75	1.50	2.25	2.00	1.875	1.375	1.625	2.00	1.50	1.00	2.00	2.00
	2.25	2.25	2.00	1.75	1.125	2.125	1.875	1.75	2.00	1.625	2.00	2.125	2.375	1.75	1.75	2.00	1.875	1.75
	2.00	1.50	2.25	1.875	1.50	2.25	2.375	2.00	1.875	1.625	1.50	2.00	1.75	2.00	2.00	2.75	1.875	1.00
	1.50	1.50	1.875	2.00	2.00	1.25	1.75	2.00	1.75	1.375	1.25	2.00	2.00	2.00	2.125	2.25	2.00	1.255
	1.75	1.875	1.75	2.50	2.00	1.50	1.50	1.625	2.00	2.00	2.25	2.25	2.125	2.00	2.25	1.50	1.625	1.375
	1.875	2.00	2.50	1.625	3.00	1.875	2.125	1.75	1.375	2.00	2.00	2.00	1.625	1.625	1.875	1.625	2.00	1.375
	2.00	1.50	2.125	1.75	1.875	1.50	1.50	2.125	2.00	2.25	1.50	2.125	1.75	1.25	2.00	1.50	2.00	2.00
	1.375	2.00	2.00	1.50	2.50	1.00	1.75	2.125	2.25	1.875	1.375	1.875	2.00	2.00	2.25	1.375	1.875	2.375
	1.50	1.625	2.00	1.625	1.375	2.00	1.125	1.625	1.875	1.875	1.25	2.00	2.375	1.50	1.50	2.75	1.75	1.75
	2.00	1.625	1.375	1.875	2.00	1.75	1.875	1.50	2.00	1.75	2.00	2.00	1.50	1.625	1.625	2.00	1.75	2.25
	2.50	1.75	2.125	1.625	1.50	2.25	2.00	1.50	1.75	1.625	2.00	2.125	2.00	1.75	2.375	2.125	1.25	2.50
	1.75	1.875	2.00	1.50	1.75	1.50	2.25	2.00	1.75	2.00	1.75	1.50	1.875	2.125	1.50	1.875	1.875	1.875
	1.625	1.875	1.875	1.50	1.375	2.25	2.25	1.50	1.875	1.50	1.875	1.625	2.25	1.625	2.25	1.50	2.25	2.50
	2.00	1.50	1.50	1.875	2.00	1.75	1.25	2.00	1.50	1.375	2.00	2.00	1.50	1.25	1.25	1.625	1.625	2.125
	3.50	1.25	1.375	1.625	1.75	1.875	1.00	1.75	2.00	1.625	1.75	2.00	1.75	2.25	2.00	2.25	1.75	2.125
	2.00	2.00	1.75	1.25	1.00	1.875	2.125	1.875	1.625	2.00	1.875	1.75	2.375	1.625	2.00	2.00	1.50	2.00
	2.00	2.125	2.00	2.00	1.25	2.00	1.875	1.875	1.75	2.00	1.625	2.00	2.25	1.625	2.125	1.625	2.00	1.25
	1.75	2.00	2.50	2.00	1.75	2.50	1.75	1.50	1.75	2.125	2.00	1.875	2.50	1.125	2.00	2.00	2.00	1.875
	1.50	1.75	2.00	1.125	1.625	2.00	1.50	1.50	1.875	1.375	1.75	1.75	2.00	1.50	2.375	2.125	1.625	1.625
	2.50	2.00	1.75	1.50	1.00	1.875	2.00	1.625	1.625	1.25	1.50	2.125	1.75	1.75	2.125	1.00	2.50	2.00
	2.50	1.25	1.875	1.75	1.50	2.375	1.25	1.50	2.50	1.375	1.625	1.75	2.25	1.875	2.125	2.25	2.00	2.125
	2.75	1.25	1.375	1.875	2.00	1.75	2.25	1.50	2.00	1.75	1.375	2.25	1.625	2.375	1.125	1.50	1.75	1.125
	2.375	2.00	2.00	1.75	1.75	2.00	1.875	1.75	1.875	2.00	1.50	2.25	1.25	1.875	2.00	1.75	1.875	2.00
	2.25	1.125	2.125	1.50	2.25	2.125	1.75	2.00	1.75	1.75	1.50	2.00	1.875	2.00	2.25	1.625	2.50	1.875
	2.50	1.75	2.25	2.125	1.50	2.00	2.125	1.375	2.00	1.625	2.00	2.25	1.75	2.00	2.00	1.50	2.00	1.75
	2.125	2.00	1.50	2.25	1.50	1.875	1.75	1.25	2.00	1.625	2.00	2.375	1.875	1.50	1.625	2.25	2.00	1.50
	2.60	1.75	1.50	2.375	1.25	1.75	2.00	1.875	2.25	1.75	2.125	1.25	1.625	1.625	1.75	2.00	2.125	1.625
	2.00	1.50	1.75	1.25	1.25	1.50	1.50	2.00	2.375	1.50	1.75	2.50	2.375	1.75	2.00	1.50	2.50	2.00
	2.00	1.50	1.75	1.50	2.00	1.75	2.00	2.00	2.25	2.00	2.00	2.00	1.75	2.00	2.125	1.75	1.875	1.50
	2.25	2.00	1.875	1.375	1.125	2.25	1.75	2.125	1.50	2.25	2.00	1.875	1.50	2.125	2.25	2.50	1.75	1.75
	1.75	1.375	2.75	2.00	1.125	1.375	1.875	1.75	1.625	1.25	1.875	2.00	1.625	1.375	2.375	2.75	2.00	2.125
	2.00	2.25	2.00	1.75	1.00	1.125	2.00	1.75	2.00	1.375	2.00	1.50	2.00	2.125	2.125	1.50	1.75	2.00
	1.875	2.00	1.625	1.25	1.25	2.125	2.00	2.00	1.75	2.125	1.625	1.625	2.50	2.00	2.375	1.875	1.875	1.875
	2.25	2.125	1.50	1.50	1.625	2.375	1.625	1.50	1.875	2.00	1.625	1.75	2.625	2.125	2.00	1.50	2.00	1.75
	2.00	1.75	2.00	2.125	1.50	2.75	2.00	1.50	1.75	2.375	2.00	1.75	1.75	2.00	2.00	2.00	1.875	1.50
	1.875	1.50	2.75	1.75	1.75	2.50	1.50	2.00	2.25	1.50	2.125	2.00	2.25	1.50	1.875	1.625	2.125	2.00
	2.00	1.875	1.875	1.625	1.25	1.50	1.75	1.75	2.00	1.50	1.625	2.25	1.625	1.50	1.75	1.625	1.625	2.50
	2.00	2.125	2.00	2.00	2.50	2.25	1.50	2.00	2.00	1.50	1.50	2.00	2.00	2.00	2.125	1.50	2.125	1.25
	2.25	2.00	2.00	2.25	1.00	2.00	2.00	2.00	1.50	2.25	2.00	2.00	2.00	1.50	2.00	1.50	3.00	1.125
	2.125	1.375	2.25	1.625	1.125	1.75	2.125	2.00	2.25	1.75	1.875	1.75	1.625	2.00	2.00	1.75	2.125	2.125
	2.25	1.50	1.625	1.25	1.75	1.75	1.50	2.00	1.50	2.25	1.75	1.875	2.00	1.50	2.00	2.75	2.50	2.00
Totals.....	100.75	86.875	95.750	86.125	83.00	95.125	93.125	90.125	95.00	89.125	88.75	97.625	90.375	88.125	99.375	91.625	90.375	92.75

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	3.50	1.3779	B′	2.50	0.9842	B′	2.375	0.9350	B′	2.375	0.9350	B′	3.25	1.2795	B′	2.75	1.0826
	B″	2.25	0.8858	B″	3.00	1.1811	B″	2.125	0.8366	B″	2.25	0.8858	B″	2.375	0.9350	B″	3.00	1.1811
	B‴	2.75	1.0826	B‴	2.75	1.0826	B‴	2.50	0.9842	B‴	2.50	0.9842	B‴	2.50	0.9842	B‴	2.50	0.9842
Highest	.....	3.50	1.3779	.....	3.00	1.1811	.....	2.50	0.9842	.....	2.50	0.9842	.....	3.25	1.2795	.....	3.00	1.1811
Minimum measurements.	B′	1.125	0.4429	B′	1.125	0.4429	B′	1.125	0.4429	B′	1.25	0.4921	B′	1.25	0.4921	B′	1.00	0.3937
	B″	1.00	0.3937	B″	1.00	0.3937	B″	1.00	0.3937	B″	1.25	0.4921	B″	1.125	0.4429	B″	1.25	0.4921
	B‴	1.375	0.5413	B‴	1.00	0.3937	B‴	1.375	0.5413	B‴	1.25	0.4921	B‴	1.125	0.4429	B‴	1.00	0.3937
Lowest	.....	1.00	0.3937	.....	1.00	0.3937	.....	1.00	0.3937	.....	1.25	0.4921	.....	1.125	0.4429	.....	1.00	0.3937
Average measurements..	B′	2.015	0.7933	B′	1.712	0.6740	B′	1.802	0.7094	B′	1.783	0.7019	B′	1.928	0.7590	B′	1.833	0.7216
	B″	1.738	0.6842	B″	1.66	0.6535	B″	1.803	0.7098	B″	1.775	0.6988	B″	1.783	0.7019	B″	1.968	0.7748
	B‴	1.915	0.7539	B‴	1.903	0.7488	B‴	1.90	0.7480	B‴	1.952	0.7685	B‴	1.987	0.7822	B‴	1.855	0.7303
Average	.....	1.889	0.7436	.....	1.758	0.6921	.....	1.835	0.7224	.....	1.836	0.7228	.....	1.899	0.7476	.....	1.885	0.7421
Measurements above average	.....	38		.....	[illegible]		.....	78		.....	83		.....	81		.....	70	
Measurements below average	.....	72		.....	[illegible]		.....	72		.....	67		.....	60		.....	80	

TABLE I.—*Measurements of fineness of wools*—Continued.

	CALIFORNIA.																	
	RAMS, 2 YEARS OLD.																	
Catalogue number of samples..	634.			635.			636.			637.			638.			639.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B′′′.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.00	1.25	2.25	1.50	2.50	1.625	1.50	2.00	2.00	1.50	2.00	1.875	2.00	1.50	1.75	3.50	1.50	2.00
	1.25	1.875	1.50	2.00	2.00	1.875	2.00	2.00	2.25	1.50	1.875	1.50	2.00	3.00	1.50	1.50	1.375	2.75
	1.75	1.375	1.375	1.25	1.75	2.125	1.625	2.125	2.50	1.75	2.50	1.50	1.875	2.00	2.75	2.00	1.50	1.875
	1.50	1.875	2.00	1.75	1.50	2.125	2.25	1.875	2.00	2.00	2.00	1.75	1.50	2.75	2.00	2.50	2.00	1.50
	1.625	1.50	2.00	2.00	1.875	2.00	1.625	1.75	2.125	2.25	2.125	1.625	1.75	2.25	2.50	2.00	1.875	1.50
	2.25	1.50	1.50	1.00	1.625	2.375	2.375	2.25	1.50	2.125	2.00	2.00	1.625	2.00	1.50	1.625	1.875	1.50
	1.625	1.125	2.00	1.75	2.00	1.50	1.875	1.75	1.75	2.50	1.50	2.125	2.50	2.00	2.00	1.50	1.50	1.75
	2.25	1.25	1.50	1.50	1.875	1.50	1.625	1.875	1.625	1.50	2.00	2.25	1.375	1.75	2.50	1.75	1.50	1.50
	1.00	1.50	2.50	1.25	1.625	1.625	2.00	1.50	1.875	1.625	2.00	1.875	1.375	1.50	1.375	2.00	1.25	2.00
	1.375	1.50	1.75	2.00	1.50	2.125	2.00	1.625	1.875	2.00	1.875	2.00	1.875	1.50	1.50	2.25	1.50	1.50
	1.375	1.75	2.00	2.00	1.50	1.75	1.625	1.75	1.75	2.25	1.875	1.875	2.625	1.875	1.50	1.50	1.50	1.50
	1.50	1.50	2.00	1.625	1.50	1.375	1.50	1.25	2.00	2.125	2.00	1.50	2.375	1.50	1.375	1.50	2.00	2.00
	1.75	2.00	1.75	1.75	1.625	1.50	1.50	2.25	2.00	1.50	2.00	1.75	2.00	2.25	1.75	1.50	1.50	1.25
	1.125	1.50	1.875	1.25	1.50	2.00	2.25	2.00	1.875	1.625	1.875	1.875	1.50	2.00	1.875	1.625	1.25	1.50
	1.50	1.50	1.50	1.875	2.00	1.50	1.25	2.50	1.625	1.875	2.50	1.625	2.50	2.25	1.75	1.75	1.50	1.625
	1.50	1.375	2.00	1.375	2.00	1.75	1.75	2.375	1.375	2.25	1.625	1.75	2.00	1.875	1.50	1.50	1.875	1.75
	1.75	1.125	2.25	1.375	1.375	2.25	2.00	2.25	1.75	2.375	1.875	2.375	2.00	1.25	1.625	2.00	1.50	1.375
	1.75	1.50	1.50	1.50	1.875	1.375	1.50	2.125	1.50	2.00	1.875	2.125	1.625	2.875	2.00	1.875	1.375	1.75
	1.50	1.875	3.00	1.50	1.875	2.50	1.25	1.75	1.00	2.25	1.75	1.875	2.50	2.25	1.375	2.00	1.50	1.50
	2.00	1.50	2.25	2.00	1.625	1.50	1.25	1.875	1.375	2.375	2.00	2.00	1.625	1.50	2.00	1.625	1.50	1.75
	1.375	1.625	1.875	1.75	1.625	1.50	1.875	1.50	2.375	1.875	1.625	2.00	2.25	2.25	2.00	2.00	1.25	1.625
	2.00	2.00	2.00	1.625	1.50	1.50	1.25	3.50	2.125	1.875	1.875	2.25	1.50	2.375	1.50	1.875	1.50	2.00
	1.375	1.50	1.875	2.125	1.50	1.50	1.625	1.50	2.00	1.50	2.75	2.00	1.625	1.875	1.75	1.50	2.50	1.375
	2.00	1.25	1.125	2.25	1.75	1.375	1.75	1.25	2.00	1.50	2.25	2.00	2.00	3.75	1.50	1.875	1.50	1.50
	1.75	2.00	1.375	1.50	1.625	2.00	2.125	1.50	2.25	1.375	2.125	1.25	2.125	1.75	1.50	1.875	1.875	1.375
	1.50	1.625	1.50	2.00	1.625	1.75	1.50	1.50	1.75	1.50	2.25	1.50	2.50	1.50	1.50	1.50	2.00	1.50
	1.50	1.375	2.00	1.25	1.50	1.625	1.625	1.50	1.625	1.625	1.875	1.75	1.50	1.875	1.75	1.50	2.00	2.00
	1.50	1.50	2.00	1.75	1.625	2.00	1.50	1.25	1.50	2.00	2.00	1.875	2.125	2.25	1.625	2.00	1.375	1.50
	1.75	1.625	1.50	1.75	1.75	1.75	2.00	1.375	1.50	2.00	1.625	1.875	2.25	1.875	1.875	1.375	1.25	1.50
	2.00	1.50	1.50	1.375	1.50	2.00	1.125	1.625	1.375	1.75	1.875	1.50	1.875	1.50	1.50	1.50	2.375	1.375
	1.50	1.75	1.75	1.875	1.50	1.875	1.50	1.75	3.00	2.00	1.875	1.75	2.00	1.50	3.75	2.00	2.50	2.25
	2.375	1.875	2.00	1.50	1.375	2.00	2.00	1.50	2.50	2.125	1.50	1.875	2.00	1.50	1.75	2.00	1.875	2.00
	1.625	1.50	1.75	1.875	1.75	1.50	2.00	2.25	1.625	2.25	1.655	1.50	2.00	1.75	1.50	2.375	1.25	1.50
	1.75	2.00	1.75	1.50	1.25	1.625	1.75	2.25	1.25	2.00	2.00	2.50	1.50	1.75	1.50	2.00	2.25	1.625
	1.50	1.50	2.00	1.50	1.50	1.75	1.75	1.75	1.375	1.75	2.00	1.625	3.00	1.50	3.75	1.875	1.25	1.25
	1.50	1.50	1.75	1.375	1.75	1.875	2.125	1.625	2.00	1.375	2.00	1.75	2.50	2.50	1.50	1.50	1.25	1.875
	1.50	2.00	1.75	1.375	2.25	1.375	1.375	1.625	1.50	1.75	2.25	1.50	1.75	2.25	1.50	1.625	2.00	1.50
	1.50	1.50	2.00	2.00	1.50	1.50	1.50	2.00	1.75	1.50	2.00	1.75	2.125	2.00	1.75	1.50	1.50	1.25
	1.25	2.00	2.375	1.50	1.375	1.75	1.50	1.50	1.875	1.75	2.375	1.50	2.00	2.25	2.50	1.875	1.50	1.50
	1.375	1.75	1.00	1.25	1.375	1.50	1.625	1.375	2.25	1.875	2.25	1.75	1.875	2.125	1.875	1.875	2.00	2.375
	1.50	2.25	2.00	2.00	1.625	2.00	1.875	1.625	2.125	2.125	1.375	1.375	1.625	2.375	1.50	1.25	1.50	1.50
	1.50	1.75	1.875	1.50	2.00	1.625	1.50	1.75	2.00	1.75	1.625	2.00	1.50	3.00	2.00	2.00	1.75	1.75
	1.50	1.375	1.875	1.75	2.00	2.625	2.00	2.00	1.75	1.50	1.875	1.50	1.875	3.25	2.50	2.50	1.50	1.75
	2.00	1.50	1.375	1.625	2.125	1.50	1.625	2.125	1.625	1.875	1.625	1.50	3.50	3.00	2.50	1.50	1.50	1.625
	1.25	1.50	2.06	1.375	2.00	1.50	1.50	2.00	1.50	1.75	1.875	1.625	4.50	3.50	1.50	1.75	1.50	1.50
	2.50	1.50	2.00	1.875	2.00	1.625	2.25	2.125	1.50	1.50	2.00	1.375	3.125	1.75	1.50	1.50	1.75	1.75
	1.25	1.50	1.50	2.00	1.50	1.50	1.50	2.00	1.625	2.00	1.625	1.875	2.00	1.875	1.375	2.00	2.00	1.75
	1.25	1.75	1.25	2.00	1.625	1.25	1.75	1.375	2.00	1.875	1.75	1.50	1.50	1.50	2.125	1.75	1.50	1.50
	1.50	1.50	2.125	1.625	1.50	1.50	1.50	1.50	1.75	2.25	2.375	2.25	2.00	2.00	1.875	2.00	1.75	2.375
	1.50	1.50	2.00	1.125	1.625	1.50	2.00	1.625	1.375	2.125	1.875	1.50	1.625	1.50	2.50	1.875	1.625	1.50
Totals	80.75	80.375	90.875	82.125	83.75	86.75	86.75	91.125	90.50	92.50	97.25	89.25	102.375	104.00	93.375	91.75	82.75	83.75

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.50	0.9842	B′	2.25	0.8858	B′	2.375	0.9350	B′	2.50	0.9842	B′	4.50	1.7716	B′	3.50	1.3779
	B″	2.25	0.8858	B″	2.50	0.9842	B″	3.50	1.3779	B″	2.75	1.0826	B″	3.75	1.4763	B″	2.50	0.9842
	B‴	3.00	1.1811	B‴	2.625	1.0334	B‴	3.00	1.1811	B‴	2.50	0.9842	B‴	3.75	1.4763	B‴	2.75	1.0826
Highest.....	.....	3.00	1.1811	.....	2.625	1.0334	.....	3.50	1.3779	.....	2.75	1.0826	.....	4.50	1.7716	.....	3.50	1.3779
Minimum measurements.	B′	1.00	0.3937	B′	1.00	0.3937	B′	1.125	0.4429	B′	1.375	0.5413	B′	1.375	0.5413	B′	1.25	0.4921
	B″	1.125	0.4429	B″	1.25	0.4921	B″	1.25	0.4921	B″	1.375	0.5413	B″	1.25	0.4921	B″	1.25	0.4921
	B‴	1.00	0.3937	B‴	1.25	0.4921	B‴	1.00	0.3937	B‴	1.25	0.4921	B‴	1.375	0.5413	B‴	1.25	0.4921
Lowest	.....	1.00	0.3937	.....	1.00	0.3937	.....	1.00	0.3937	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.25	0.4921
Average measurements..	B′	1.615	0.6358	B′	1.643	0.6468	B′	1.735	0.6830	B′	1.85	0.7283	B′	2.047	0.8059	B′	1.835	0.7224
	B″	1.608	0.6330	B″	1.675	0.6594	B″	1.822	0.7173	B″	1.945	0.7657	B″	2.08	0.8188	B″	1.655	0.6515
	B‴	1.818	0.7157	B‴	1.735	0.6830	B‴	1.81	0.7125	B‴	1.785	0.7027	B‴	1.867	0.7350	B‴	1.675	0.6594
Average	.....	1.68	0.6614	.....	1.684	0.6629	.....	1.789	0.7143	.....	1.86	0.7322	.....	1.998	0.7866	.....	1.721	0.6775
Measurements above average..	.....	68		.....	66		.....	63		.....	89		.....	70		.....	69	
Measurements below average..	.....	82		.....	84		.....	87		.....	61		.....	80		.....	81	

TABLE I.—*Measurements of fineness of wools*—Continued.

CALIFORNIA.

	RAMS, 2 YEARS OLD.			EWES, 2 YEARS OLD.													
Catalogue number of samples	640.			626.			627.			628.			629.			[illegible]	
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.50	2.50	1.50	1.875	1.75	1.50	1.50	2.125	2.00	1.50	1.50	1.50	1.625	1.25	2.50	1.75	1.75	1.50
	1.875	2.25	1.75	2.00	1.875	1.50	1.50	2.125	1.875	1.125	1.50	[illegible]	1.625	1.50	1.50	1.875	1.375	[illegible]
	1.875	2.75	2.50	1.50	1.50	1.50	1.625	2.25	1.50	1.875	1.25	1.50	[illegible]	1.75	1.75	1.75	1.50	1.50
	2.50	2.00	1.50	1.625	1.50	1.75	1.50	1.875	2.50	1.625	1.50	2.125	2.50	1.50	2.125	2.00	1.50	[illegible]
	2.125	2.00	2.375	1.50	2.00	1.25	1.75	1.50	1.25	2.00	1.75	[illegible]	1.625	1.50	1.625	1.75	1.625	1.50
	[illegible]	1.875	1.75	1.625	1.50	[illegible]	2.125	2.00	1.50	2.00	[illegible]	[illegible]	[illegible]	1.50	2.00	1.50	1.50	1.50
	1.625	[illegible]	[illegible]	1.375	1.625	1.625	2.125	1.50	1.75	1.375	1.25	1.50	1.875	1.375	2.75	1.875	1.50	1.625
	1.625	2.75	1.75	1.50	1.50	1.50	2.00	1.625	2.00	1.875	[illegible]	2.00	1.75	1.625	[illegible]	1.625	1.625	1.50
	2.00	2.125	2.50	1.625	1.50	1.50	1.625	2.00	2.375	1.375	[illegible]	2.125	2.125	1.625	1.75	1.50	1.75	1.50
	[illegible]	2.00	2.00	2.125	[illegible]	1.50	1.375	1.375	1.50	1.50	1.75	1.75	2.00	1.375	2.50	[illegible]	1.875	1.50
	1.00	1.50	2.00	1.50	1.50	1.125	1.50	1.875	1.375	1.75	1.00	[illegible]	1.50	1.50	2.125	1.625	1.25	1.875
	2.00	2.50	1.75	2.50	1.75	1.75	1.50	1.625	1.50	1.875	[illegible]	[illegible]	1.50	[illegible]	1.50	1.50	1.375	1.25
	2.375	2.125	2.00	2.50	1.50	1.75	2.50	1.625	2.50	1.375	1.50	1.375	2.25	[illegible]	1.875	2.00	1.375	1.25
	2.375	1.50	[illegible]	2.00	2.00	1.75	1.50	2.00	1.50	[illegible]	1.875	2.125	1.625	1.375	1.625	1.625	1.25	1.25
	2.00	2.00	1.75	1.75	1.75	1.375	2.00	1.50	1.625	2.125	1.50	1.25	1.75	1.875	1.75	1.625	1.50	1.375
	1.875	2.375	1.875	1.50	1.375	1.75	2.00	1.625	[illegible]	1.875	1.75	1.875	1.75	1.25	1.625	1.75	1.375	1.625
	1.75	2.25	1.75	1.50	1.875	1.75	1.50	1.50	2.50	1.625	1.50	1.375	1.875	1.75	[illegible]	1.50	1.50	1.50
	2.25	2.00	2.375	1.75	1.875	1.75	2.125	2.375	1.50	1.50	1.50	[illegible]	1.50	1.50	[illegible]	1.875	1.125	1.75
	1.625	2.375	[illegible]	2.00	1.875	1.75	1.375	1.875	1.50	1.75	1.50	1.75	1.50	1.50	1.875	1.625	1.875	1.875
	2.50	2.25	2.125	1.375	2.25	1.375	1.75	1.50	1.75	1.625	1.75	1.625	1.50	1.50	1.625	1.50	1.125	1.625
	[illegible]	1.875	1.50	2.375	1.875	1.375	1.875	2.125	1.75	1.625	1.50	[illegible]	1.375	1.25	1.50	1.375	1.50	1.50
	2.125	1.875	1.50	1.375	1.50	[illegible]	2.375	1.875	2.375	1.75	1.00	1.875	1.625	[illegible]	1.875	1.875	1.875	1.50
	2.625	2.375	[illegible]	1.625	1.75	[illegible]	1.875	1.875	2.00	1.875	1.50	1.375	1.625	1.25	1.75	1.625	1.125	1.875
	1.75	[illegible]	1.75	1.50	1.75	1.375	1.50	1.50	1.50	1.50	1.50	1.50	1.50	2.00	[illegible]	1.375	1.375	1.50
	2.00	1.625	1.875	1.75	1.50	1.50	2.00	1.875	2.00	1.375	1.50	1.875	1.75	1.75	2.00	1.875	1.50	1.625
	2.375	2.00	1.875	2.00	1.625	1.50	1.50	1.625	1.625	1.75	1.50	[illegible]	1.875	1.875	1.875	1.50	1.50	1.50
	1.75	2.00	2.50	1.75	1.50	1.375	1.875	2.00	2.00	[illegible]	1.50	1.75	1.875	1.50	[illegible]	1.50	2.00	1.50
	1.625	[illegible]	1.875	2.00	1.50	1.75	2.00	2.125	1.375	1.50	1.75	1.875	1.50	1.75	[illegible]	1.875	1.75	1.625
	1.875	1.50	1.625	1.75	1.875	1.375	2.375	1.625	1.50	1.75	1.50	1.50	1.375	1.75	1.875	1.875	1.50	2.00
	2.375	2.00	1.75	1.50	2.00	1.375	1.875	1.50	[illegible]	1.25	1.125	[illegible]	1.50	1.50	1.875	1.875	1.50	1.125
	2.875	2.00	1.625	1.625	1.50	1.50	2.00	1.50	2.00	2.00	0.875	1.875	2.25	1.25	1.50	1.75	1.25	1.375
	1.625	1.625	2.00	2.00	1.375	1.50	1.25	2.00	2.00	1.25	[illegible]	[illegible]	1.50	1.50	1.875	1.625	1.50	1.625
	2.00	1.75	2.25	2.00	1.50	2.00	1.875	1.875	1.875	2.50	1.50	1.625	1.875	1.50	1.875	1.625	1.875	1.75
	2.125	2.00	1.875	2.00	1.75	1.625	2.50	2.50	3.00	[illegible]	1.125	2.00	[illegible]	[illegible]	[illegible]	1.625	1.50	1.375
	2.125	2.25	2.25	1.50	1.50	1.25	2.00	1.75	2.00	2.375	1.125	1.375	1.625	1.50	1.625	2.25	1.625	1.625
	1.75	1.875	1.50	2.00	[illegible]	1.875	2.00	2.00	1.75	1.875	1.50	1.625	1.50	1.375	2.125	1.875	1.875	1.50
	2.00	2.00	1.625	1.75	1.625	1.625	1.50	2.00	1.25	1.625	1.50	[illegible]	1.625	1.375	1.875	1.50	2.00	1.75
	1.625	2.00	1.75	1.50	1.50	2.00	2.50	1.875	1.75	1.75	1.50	2.00	[illegible]	1.625	2.25	2.00	1.375	1.375
	1.875	2.00	1.75	1.625	1.625	1.875	1.25	1.50	1.75	1.25	1.625	[illegible]	2.00	1.875	1.875	[illegible]	1.50	1.50
	1.75	2.00	2.375	1.50	1.75	1.625	1.50	2.00	2.00	1.50	1.375	1.75	1.50	1.50	2.00	2.125	1.625	2.00
	2.00	1.625	1.75	2.00	1.50	2.00	1.625	2.375	2.75	1.625	2.50	1.50	1.50	1.50	1.625	1.625	1.75	1.625
	1.25	2.125	2.00	1.875	1.75	2.00	1.50	1.50	2.00	1.50	1.50	1.125	2.00	1.125	1.75	1.75	2.00	1.75
	2.00	2.00	2.00	1.625	2.00	1.75	1.50	1.375	2.375	[illegible]	1.50	[illegible]	1.75	1.625	2.00	1.875	1.125	1.375
	2.00	3.00	2.125	2.50	1.50	1.625	1.75	1.50	2.50	1.50	1.375	1.875	1.75	1.50	2.625	1.625	1.375	1.875
	1.875	2.75	[illegible]	1.625	[illegible]	2.00	3.00	1.50	[illegible]	1.50	1.625	1.625	1.875	1.875	1.50	1.50	1.50	1.50
	1.625	2.375	2.00	1.875	1.625	1.625	1.875	1.375	[illegible]	1.50	1.375	[illegible]	1.50	1.50	1.50	1.625	1.625	1.25
	1.375	2.00	2.25	1.50	1.75	1.50	1.50	2.00	[illegible]	1.375	[illegible]	1.875	1.625	1.50	1.875	1.875	[illegible]	[illegible]
	2.75	2.125	1.75	1.375	1.50	1.50	1.25	1.875	[illegible]	[illegible]	1.375	1.50	[illegible]	1.25	1.875	1.25	1.375	1.50
	1.50	2.25	[illegible]	2.50	1.50	1.50	1.50	2.00	2.75	1.50	1.50	[illegible]	1.75	1.25	1.875	1.50	[illegible]	2.125
Totals	100.00	105.25	97.50	88.00	82.25	[illegible]	87.50	[illegible]	[illegible]	[illegible]	76.00	89.00	87.75	77.50	94.625	[illegible]	77.00	78.875

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	[illegible]	1.1318	B′	2.50	0.9842	B′	3.00	1.1811	B′	2.50	[illegible]	B′	2.50	0.9842	B′	2.25	0.8858
	B″	3.00	1.1811	B″	3.50	1.3779	B″	2.50	0.9842	B″	2.50	0.9842	B″	[illegible]	0.7874	B″	2.00	0.7874
	B‴	2.625	1.0334	B‴	2.00	0.7874	B‴	3.00	1.1811	B‴	2.50	0.9842	B‴	3.625	1.4271	B‴	2.125	0.8366
Highest		3.00	1.1811		3.50	1.3779		3.00	1.1811		2.50	[illegible]		3.625	1.4271		2.25	0.8858
Minimum measurements.	B′	1.25	0.4921	B′	1.375	0.5413	B′	1.25	0.4921	B′	1.125	0.4429	B′	1.375	0.5413	B′	1.25	0.4921
	B″	1.50	0.5905	B″	1.00	0.3937	B″	1.125	0.4429	B″	0.875	0.3445	B″	1.125	0.4429	B″	1.125	0.4429
	B‴	1.50	0.5905	B‴	1.125	0.4429	B‴	1.25	0.4921	B‴	1.125	0.4429	B‴	1.375	0.5413	B‴	1.125	0.4429
Lowest		1.25	0.4921		1.00	0.3937		1.125	0.4429		0.875	0.3445		1.125	0.4429		1.125	0.4429
Average measurements.	B′	2.00	0.7874	B′	1.76	0.6929	B′	1.75	[illegible]	B′	1.685	0.6633	B′	1.755	[illegible]	B′	1.73	0.6811
	B″	2.105	0.8287	B″	1.643	0.6476	B″	1.783	0.7019	B″	1.52	[illegible]	B″	1.55	0.6102	B″	1.54	0.6062
	B‴	1.93	0.7677	B‴	1.618	0.6370	B‴	1.928	0.7590	B‴	1.78	0.7007	B‴	[illegible]	0.7132	B‴	1.578	0.6212
Average		2.018	0.7944		1.674	0.6590		1.82	0.7165		1.68	0.6535		1.73	0.6811		[illegible]	0.6362
Measurements above average		56			63			74			21			57			77	
Measurements below average		94			87			76			86			93			73	

TABLE I.—*Measurements of fineness of wools*—Continued.

	CALIFORNIA.																	
	EWES, 2 YEARS OLD.																	
Catalogue number of samples..	631.			632.			633.			641.			642.			643.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.125	1.75	1.625	2.625	2.25	1.50	1.75	1.75	1.50	1.625	2.50	1.50	1.00	1.75	2.125	2.125	2.375	1.50
	2.00	1.50	1.625	1.50	1.625	1.75	2.00	1.625	2.00	1.50	2.00	1.625	1.125	1.50	2.00	1.50	2.50	1.50
	1.875	1.125	2.00	1.625	1.50	1.625	1.50	2.00	2.25	1.50	1.875	1.50	1.50	3.25	2.00	1.625	2.50	1.00
	1.625	1.75	2.125	1.50	2.00	1.875	2.50	2.50	2.50	1.25	2.125	1.375	1.50	3.00	2.00	1.50	2.125	2.25
	1.875	1.875	1.375	1.75	1.625	1.75	2.25	2.625	2.75	1.50	1.875	2.00	1.25	1.50	2.00	2.50	2.375	2.50
	2.00	1.50	1.75	2.125	1.50	2.00	2.00	1.875	1.50	1.625	2.125	1.50	2.00	2.00	2.25	1.50	1.75	3.625
	2.125	1.25	1.875	2.375	1.75	1.875	1.75	2.00	2.00	2.00	1.75	1.125	2.00	1.75	1.50	2.375	3.00	1.75
	2.125	1.625	1.75	2.125	1.875	1.75	2.25	2.125	1.50	1.50	1.625	1.75	1.25	2.00	1.75	2.00	2.25	2.00
	1.375	2.00	2.00	1.50	1.875	2.25	3.00	1.875	2.25	1.50	1.50	1.625	1.50	1.875	2.125	2.00	2.625	1.50
	1.50	2.00	1.625	2.00	1.875	1.75	1.50	2.00	2.50	1.375	1.50	1.75	1.00	1.50	2.00	2.50	2.125	2.00
	1.625	1.375	1.875	2.125	2.50	1.50	1.75	2.00	1.50	1.375	2.00	1.75	1.625	1.75	1.00	3.00	2.50	2.00
	1.875	1.625	2.00	3.25	2.00	2.125	2.00	1.875	2.00	1.50	2.50	2.00	1.00	2.125	1.125	2.50	2.125	1.875
	2.00	2.00	2.25	1.75	1.875	1.75	4.00	2.00	1.50	1.375	1.50	2.50	1.25	3.00	1.375	2.25	2.00	2.00
	1.625	1.625	2.125	1.75	2.00	1.50	2.25	2.00	1.625	2.00	1.625	2.50	1.50	3.00	1.50	1.50	2.50	2.25
	1.125	2.00	2.375	2.25	2.00	1.75	1.75	2.00	1.25	2.125	1.50	1.75	1.50	1.50	1.50	2.50	2.50	1.50
	1.875	1.50	1.625	1.875	1.50	2.125	1.75	2.00	1.375	2.00	1.50	1.50	1.25	1.50	2.00	2.50	2.75	2.00
	1.625	1.50	1.875	1.50	1.875	2.50	2.00	2.25	1.75	1.375	2.00	1.375	1.50	1.625	2.50	3.00	1.75	1.50
	1.375	1.375	1.875	1.875	2.00	1.50	2.00	2.00	2.50	1.50	2.125	1.50	1.00	1.625	2.00	2.50	1.625	1.00
	1 50	1.375	2.00	1.75	3.25	1.50	2.00	3.125	2.50	2.50	1.75	1.625	1.00	1.50	1.625	1.25	1.50	2.00
	2.00	1.625	1.75	1.625	1.75	1.875	2.00	2.00	2.00	2.625	1.75	1.375	1.50	1.00	1.50	1.25	2.00	2.25
	2.375	1.875	2.125	2.625	2.50	2.00	1.75	2.00	2.50	1.75	1.625	2.00	1.625	1.125	1.625	2.50	2.00	1.50
	2.00	1.50	1.50	2.375	1.375	1.875	2.25	1.75	1.50	1.50	2.00	1.50	2.00	1.50	2.00	2.50	2.75	1.75
	1.625	1.50	2.50	2.00	1.50	2.00	2.125	2.00	2.00	1.50	1.50	1.75	2.00	2.625	1.625	2.375	2.00	1.25
	1.25	2.00	2.25	1.75	1.625	2.50	1.50	2.00	1.50	1.625	1.625	2.00	1.00	2.00	1.50	2.25	1.875	1.875
	2.50	1.625	1.375	1.625	1.50	2.00	2.125	1.375	2.00	1.50	1.50	1.50	1.25	1.875	2.50	2.75	3.50	2.125
	2.00	1.625	2.25	1.75	2.125	1.50	2.00	1.625	1.50	1.50	2.125	1.625	1.50	1.50	1.50	3.375	2.75	2.00
	2.00	1.50	1.75	2.00	1.375	2.00	2.00	2.00	1.75	1.125	2.375	1.50	1.25	3.00	1.00	1.50	1.625	2.25
	1.50	1.50	1.50	2.00	1.875	2.125	2.00	2.50	2.00	1.00	1.50	1.25	1.50	2.625	1.25	3.125	1.875	1.50
	1.625	2.00	1.625	2.00	2.00	1.625	1.50	2.00	2.00	1.50	1.875	1.375	1.50	1.75	2.00	2.50	2.00	2.00
	1.50	1.50	1.50	1.75	1.875	2.50	1.75	1.75	1.75	1.50	2.00	2.00	1.50	1.50	1.75	2.00	1.75	2.20
	1.625	1.625	2.00	2.00	1.50	2.125	2.50	2.00	1.50	1.75	1.625	1.25	1.75	3.50	2.00	1.50	2.25	2.50
	1.25	1.75	1.25	1.375	1.125	1.375	2.00	1.875	1.50	1.25	1.25	1.75	1.00	1.50	1.00	2.50	2.25	2.25
	1.875	1.875	2.125	1.50	1.625	2.00	2.50	2.25	2.25	1.50	1.50	1.75	2.00	2.00	1.75	2.625	2.00	2.75
	1.375	1.50	2.00	1.625	2.00	1.875	1.50	2.00	2.50	1.75	1.625	1.50	2.00	1.75	1.75	2.75	2.375	2.00
	1.75	1.75	2.00	1.875	1.875	2.00	1.75	2.125	1.50	2.125	1.625	1.875	1.50	2.00	1.50	2.25	2.00	2.25
	2.125	2.00	1.875	2.00	1.875	1.625	2.00	2.00	2.25	2.00	1.875	1.50	2.00	1.50	1.625	2.25	3.00	2.25
	1.375	2.125	2.00	2.00	2.125	1.50	1.50	2.00	2.50	1.50	1.50	1.375	1.50	1.625	2.00	1.50	2.50	1.875
	2.50	1.625	1.625	2.00	2.00	2.00	1.75	2.00	1.50	1.50	1.50	1.50	1.50	2.125	2.50	2.00	2.00	2.375
	1.375	1.50	1.75	2.00	2.125	1.625	1.625	2.25	1.75	1.625	1.50	1.125	1.375	1.625	1.875	1.50	3.00	1.50
	1.625	1.125	1.75	1.75	1.50	1.375	2.50	1.875	2.00	1.50	1.875	1.25	1.25	3.00	1.50	1.75	2.50	1.625
	2.75	2.125	2.00	1.375	1.625	1.50	2.75	3.50	2.50	1.875	1.875	1.50	1.50	2.00	1.625	1.75	2.00	*1.50
	2.00	1.875	2.00	1.75	1.625	1.375	2.00	2.00	1.50	1.50	1.75	2.00	2.00	2.00	2.00	2.00	2.00	1.625
	2.00	1.50	1.75	1.875	1.50	1.625	1.50	1.875	1.625	1.25	2.00	2.00	1.50	1.875	2.25	1.625	1.75	2.00
	1.50	1.625	2.00	1.625	1.625	1.375	1.75	1.625	1.50	2.125	1.875	1.25	2.00	1.75	1.50	2.125	2.50	1.50
	2.125	1.375	2.50	1.75	1.375	1.625	1.875	1.875	2.00	2.00	1.50	2.125	1.375	2.00	1.75	3.25	2.25	1.50
	1.625	2.625	1.50	1.75	2.00	2.125	2.50	1.50	1.25	1.25	1.50	1.75	2.50	1.375	1.625	1.625	3.00	1.75
	1.50	1.625	2.50	1.50	1.375	1.875	2.25	1.50	1.75	1.75	2.00	1.50	1.50	1.375	1.50	2.50	2.875	1.625
	1.375	1.50	1.50	2.00	1.75	1.875	1.75	2.00	1.75	1.50	2.00	2.00	1.00	1.50	1.75	2.25	3.00	1.50
	1.50	1.50	2.00	1.625	1.50	1.50	1.875	3.25	1.50	1.50	2.125	1.50	1.125	1.625	2.00	2.50	2.875	1.50
	1.50	2.00	2.00	1.50	1.75	1.625	1.75	3.50	1.50	2.00	2.00	1.375	2.00	1.875	2.50	1.125	1.875	1.75
Totals.....	88.375	83.625	94.00	94.625	91.25	90.375	100.125	103.125	93.375	77.500	90.75	82.00	74.750	96.25	88.625	108.125	113.00	92.875

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.75	1.0826	B′	3.25	1.2795	B′	4.00	1.5748	B′	2.625	1.0334	B′	2.50	0.9842	B′	3.375	1.3287
	B″	2.625	0.6397	B″	3.25	1.2795	B″	3.50	1.3779	B″	2.50	0.9842	B″	3.50	1.3779	B″	3.50	1.3779
	B‴	2.50	0.9842	B‴	2.50	0.9842	B‴	2.75	1.0826	B‴	2.50	0.9842	B‴	2.50	0.9842	B‴	3.625	1.4271
Highest.....		2.75	1.0826		3.25	1.2795		4.00	1.5748		2.625	1.0334		3.50	1.3779		3.625	1.4271
Minimum measurements.	B′	1.125	0.4429	B′	1.375	0.5413	B′	1.50	0.5905	B′	1.00	0.3937	B′	1.00	0.3937	B′	1.125	0.4429
	B″	1.125	0.4429	B″	1.125	0.4429	B″	1.375	0.5413	B″	1.50	9.5905	B″	1.00	0.3937	B″	1.50	0.5905
	B‴	1.25	0.9842	B‴	1.375	0.5413	B‴	1.25	0.4921	B‴	1.125	0.4429	B‴	1.00	0.3937	B‴	1.00	0.3937
Lowest		1.125	0.4429		1.125	0.4429		1.25	0.4921		1.00	0.3937		1.00	0.3937		1.00	0.3937
Average measurements..	B′	1.768	0.6960	B′	1.893	0.7452	B′	2.002	0.7881	B′	1.55	0.6102	B′	1.495	0.5885	B′	2.162	0.8511
	B″	1.672	5.6582	B″	1.825	0.7185	B″	2.063	0.8122	B″	1.815	0.7145	B″	1.925	0.7578	B″	2.26	0.8897
	B‴	1.88	0.7157	B‴	1.808	0.7118	B‴	1.867	0.7350	B‴	1.64	0.6456	B‴	1.772	0.6976	B‴	1.857	0.7311
Average		1.77	0.6968		1.842	0.7251		1.977	0.7783		1.665	0.6436		1.73	0.6811		2.093	0.8240
Measurements above average..		67			73			85			65			60			61	
Measurements below average..		83			77			65			85			84			89	

TABLE I.—*Measurements of fineness of wools*—Continued.

	CALIFORNIA.																	
	EWES, 2 YEARS OLD.																	
Catalogue number of samples..	644.			642.			650.			651.			652.			653.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.50	1.625	1.50	2.00	2.125	2.00	1.50	1.625	2.25	2.75	2.50	2.00	2.50	1.625	2.375	1.75	2.00	1.75
	1.875	1.75	3.00	2.375	2.125	1.625	2.25	2.00	2.00	2.00	2.375	1.625	2.00	2.115	1.625	1.23	2.00	2.125
	2.125	1.875	1.625	1.875	2.00	1.625	1.50	1.50	2.25	2.25	2.00	2.375	2.00	2.50	2.00	1.875	2.125	2.25
	1.625	1.50	1.50	2.00	1.875	2.50	1.75	1.50	2.00	1.875	2.50	2.125	2.00	2.00	2.00	1.875	2.25	2.00
	1.125	1.625	1.50	1.50	1.875	2.00	2.125	2.25	2.25	2.50	2.50	1.875	2.00	2.00	1.50	1.25	2.25	2.00
	2.50	1.50	1.375	2.125	2.125	2.25	2.25	1.875	2.25	2.125	2.375	2.00	1.625	1.50	1.75	2.50	2.375	1.50
	1.50	1.875	1.50	2.00	2.25	2.375	1.625	1.875	2.25	2.00	2.50	2.50	1.875	2.25	1.875	1.50	2.125	2.25
	1.50	1.75	1.625	2.00	2.00	2.00	1.75	2.00	1.75	2.375	1.75	2.00	1.625	2.25	1.375	1.75	1.875	2.50
	1.50	2.00	1.875	2.00	2.00	2.375	2.00	2.125	2.00	2.25	1.625	1.875	2.125	1.875	2.00	2.00	2.50	2.25
	2.125	1.50	1.50	2.50	2.125	2.125	3.00	2.125	1.625	2.375	2.50	2.375	2.00	1.875	1.75	2.125	2.00	2.25
	2.125	1.50	2.25	1.75	1.50	2.125	2.00	1.50	1.50	2.00	1.75	2.00	2.00	2.00	1.875	2.25	1.75	2.125
	1.75	2.625	2.00	1.875	2.125	2.00	2.00	2.00	2.25	2.375	1.50	2.25	2.25	2.125	1.50	2.25	2.00	2.50
	1.50	1.375	1.50	1.875	2.375	2.25	1.875	2.50	2.375	2.00	2.125	2.00	2.375	1.75	1.875	1.375	2.50	2.50
	2.00	1.625	1.50	2.00	2.50	2.375	1.75	1.875	1.50	2.00	1.75	2.50	2.00	1.875	2.00	1.625	1.625	2.25
	2.25	1.50	1.375	2.00	2.00	2.00	2.00	3.00	1.75	1.50	3.50	2.375	1.50	1.875	2.00	1.875	2.00	2.125
	2.00	1.125	1.875	2.00	2.00	2.50	2.00	1.375	2.00	2.00	2.00	2.00	2.25	1.50	1.50	2.875	2.50	2.125
	1.75	1.125	1.625	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.375	2.50	2.125	2.00	2.00	2.25	2.375	2.125
	2.125	2.00	1.50	2.375	2.50	1.75	2.00	2.50	2.00	2.00	2.625	2.50	1.875	1.75	1.375	2.00	2.50	2.25
	2.50	1.50	1.375	2.00	2.00	1.50	2.00	2.00	2.50	2.50	1.75	2.625	2.25	2.25	1.50	1.625	2.25	3.00
	1.50	1.75	1.50	2.25	2.00	2.00	2.00	1.625	2.00	2.25	2.00	1.625	1.75	2.00	2.375	1.75	2.375	2.50
	2.00	2.00	1.125	1.625	2.25	1.875	1.50	2.50	2.00	2.375	1.375	2.25	2.125	2.00	2.50	1.875	1.875	2.125
	1.875	1.875	1.125	2.00	2.50	2.00	1.75	1.875	2.00	2.00	2.125	2.00	2.00	1.875	2.375	2.00	2.00	3.00
	2.00	1.50	1.75	2.125	2.25	2.00	1.875	1.50	2.25	2.00	1.75	1.875	1.75	1.875	2.00	1.75	1.875	2.375
	1.50	1.25	1.50	2.00	2.00	2.375	2.00	2.00	2.50	1.875	1.75	1.875	1.625	2.25	1.50	1.75	2.125	3.00
	1.50	1.625	1.50	2.50	2.00	2.50	2.00	1.875	2.25	2.50	1.875	2.375	2.00	2.00	1.50	2.50	1.50	2.00
	1.75	1.75	1.50	2.25	2.375	2.00	2.25	2.00	2.00	2.00	2.50	1.50	2.00	2.375	1.50	2.50	1.75	2.50
	1.625	2.125	1.50	2.375	2.25	2.00	2.00	2.75	2.00	2.00	2.125	2.875	2.125	1.875	1.875	2.50	1.875	
	2.00	1.875	1.50	2.00	2.00	2.375	2.125	2.50	2.00	3.00	2.00	2.625	2.00	1.875	1.75	2.00	2.00	2.125
	1.50	1.50	1.75	2.25	2.25	2.375	2.25	2.125	3.00	1.75	2.00	2.50	1.75	1.625	2.125	2.00	2.00	3.00
	1.50	1.50	1.25	2.125	1.875	2.00	2.00	2.00	2.50	2.25	1.625	1.875	1.75	1.875	2.25	2.00	1.875	2.00
	1.50	1.625	1.875	2.00	2.125	2.00	2.25	1.625	2.00	2.50	2.00	1.875	1.50	1.875	2.00	2.00	1.50	2.375
	1.75	1.75	2.25	2.00	2.25	1.625	1.875	3.50	2.00	2.00	2.50	2.125	1.875	1.75	1.875	2.00	2.125	2.125
	2.50	1.75	1.50	2.125	2.125	2.00	1.875	2.00	2.50	2.00	2.50	1.875	2.00	1.875	2.125	1.875	1.875	2.50
	1.875	1.50	2.00	2.00	2.00	2.00	2.125	2.00	2.00	2.25	2.375	2.875	1.50	2.00	1.75	2.00	2.00	2.625
	1.625	2.125	1.50	2.00	1.50	2.00	1.75	1.625	2.125	2.25	2.00	1.75	1.75	1.875	2.00	2.00	1.875	2.75
	1.75	2.00	2.00	2.00	1.75	2.50	1.50	2.00	1.50	2.375	2.00	1.50	1.775	2.125	1.50	1.50	2.50	2.50
	1.75	1.875	2.00	2.50	1.875	2.50	2.75	2.00	3.25	2.00	1.875	1.875	2.50	2.25	1.625	2.375	2.125	2.875
	2.00	1.625	2.00	2.125	1.75	2.50	2.50	2.00	1.875	1.875	1.625	2.25	1.875	2.25	1.875	1.875	2.00	2.50
	2.00	1.625	1.75	1.875	1.625	1.875	2.00	2.75	1.625	1.875	2.00	2.25	2.50	2.50	1.75	2.125	2.50	2.50
	2.00	1.625	1.875	1.875	2.25	2.125	2.00	3.50	2.25	2.875	2.50	2.50	2.00	2.375	2.00	2.375	2.00	2.625
	1.25	1.75	1.75	2.125	2.375	2.375	2.125	1.50	3.375	2.75	1.875	2.50	1.875	2.125	1.50	2.00	2.00	2.375
	1.50	1.875	1.625	2.50	2.00	2.00	1.75	1.50	2.00	2.00	2.00	1.625	2.00	1.375	1.875	2.25	2.00	2.50
	1.50	1.625	1.25	2.375	2.00	2.125	2.00	2.00	2.50	2.25	2.625	2.50	2.50	2.00	2.00	1.75	2.125	2.875
	2.25	1.625	1.25	2.125	2.00	2.50	2.375	2.00	2.50	1.625	2.375	2.00	2.125	1.375	2.00	1.75	1.375	2.50
	2.00	1.625	1.125	2.125	2.50	1.50	1.75	2.50	2.00	2.75	2.00	1.625	2.00	2.00	2.00	2.00	2.00	2.00
	1.50	1.875	1.50	2.00	1.75	2.00	1.875	2.25	2.25	2.00	2.125	2.375	2.00	1.375	1.50	2.125	1.625	2.875
	1.75	1.50	1.50	2.50	2.375	2.125	2.00	1.625	1.50	2.125	2.00	2.00	2.50	1.875	1.625	1.75	1.625	2.125
	2.25	1.625	1.75	2.125	2.00	2.125	2.00	1.875	1.50	2.00	1.75	1.875	2.00	1.50	1.875	2.125	2.375	2.50
	1.50	1.875	1.25	1.625	2.50	2.00	2.50	2.50	2.00	2.50	2.00	2.50	2.00	2.00	2.125	2.00	2.375	2.00
	1.50	1.875	2.00	2.375	2.00	1.625	2.00	2.00	1.375	1.875	2.00	1.50	2.00	2.00	1.625	2.125	2.00	2.00
Totals.....	89.875	84.875	81.25	105.125	104.00	105.875	99.375	102.375	104.875	107.25	104.25	100.50	100.75	97.50	92.25	90.00	101.50	116.50

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.50	0.9842	B′	2.50	0.9842	B′	3.00	1.1811	B′	3.00	1.1811	B′	2.875	1.1318	B′	2.875	1.1318
	B″	2.625	1.0334	B″	2.50	0.9842	B″	3.50	1.3779	B″	3.50	1.3779	B″	2.50	0.9842	B″	2.50	0.9842
	B‴	3.00	1.1811	B‴	2.50	0.9842	B‴	3.375	1.3287	B‴	2.875	1.1318	B‴	2.50	0.9842	B‴	3.00	1.1811
Highest.....		3.00	1.1811		2.50	0.9842		3.50	1.3779		3.50	1.3779		2.875	1.1318		3.00	1.1811
Minimum measurements.	B′	1.125	0.4429	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.25	0.4921
	B″	1.125	0.4429	B″	1.50	0.5905	B″	1.375	0.5413	B″	1.375	0.5413	B″	1.375	0.5413	B″	1.375	0.5413
	B‴	1.125	0.4921	B‴	1.50	0.5905	B‴	1.375	0.5413	B‴	1.50	0.5905	B‴	1.375	0.5413	B‴	1.50	0.5905
Lowest.....		1.125	0.4429		1.50	0.5905		1.375	0.5413		1.375	0.5413		1.375	0.5413		1.25	0.4921
Average measurements.	B′	1.797	0.7074	B′	2.102	0.8375	B′	1.987	0.7822	B′	2.145	0.8444	B′	2.015	0.7933	B′	1.92	0.7550
	B″	1.698	0.6685	B″	2.08	0.8188	B″	2.047	0.8059	B″	2.085	0.8206	B″	1.95	0.7677	B″	2.03	0.7992
	B‴	1.625	0.6397	B‴	2.117	0.8334	B‴	2.097	0.8263	B‴	2.13	0.8385	B‴	1.845	0.7263	B″	2.23	0.9173
Average.....		1.706	0.6716		2.099	0.8263		2.04	0.8031		2.12	0.8340		1.93	0.7598		2.09	0.8228
Measurements above average.....		88			68			50			69			80			74	
Measurements below average.....		81			82			100			81			70			76	

TABLE I.—*Measures of fineness of wools*—Continued.

	CALIFORNIA.																	
	EWES, 2 YEARS OLD.																	
Catalogue number of samples..	654.			655.			656.			658.			659.			660.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.00	1.625	1.50	1.875	1.75	2.00	1.875	2.00	2.125	1.875	3.00	1.00	1.625	1.875	2.00	1.875	1.75	1.50
	1.625	2.00	1.50	1.625	1.50	2.00	1.875	2.00	2.00	1.875	2.25	2.00	2.00	2.375	2.00	1.75	2.00	2.00
	1.875	1.375	2.125	1.875	1.875	3.00	2.125	1.875	2.50	2.00	2.00	1.00	2.125	2.50	1.75	1.875	2.00	1.75
	1.875	1.875	1.875	2.00	1.75	2.00	2.125	2.00	1.625	2.125	2.00	2.25	1.875	2.25	2.00	2.50	1.50	1.875
	2.375	1.75	2.00	2.625	2.00	2.125	2.00	2.00	2.00	2.00	2.125	2.50	1.75	2.50	2.25	1.75	1.75	2.75
	2.00	1.625	1.50	1.75	1.50	2.00	1.75	2.00	1.875	1.875	2.00	2.00	1.875	1.625	2.00	2.125	1.25	2.50
	1.625	2.00	1.625	2.125	1.875	1.50	2.00	2.00	2.375	2.25	2.50	1.875	2.00	1.75	2.125	1.875	1.875	1.875
	1.50	1.25	2.125	1.625	2.125	1.875	3.00	2.50	1.875	1.75	2.375	1.75	1.50	2.375	1.625	1.875	1.50	1.75
	1.375	2.00	1.625	1.375	2.375	2.00	2.00	2.375	2.375	1.625	1.875	3.00	2.00	2.25	2.375	2.00	2.50	2.00
	2.00	2.125	1.50	2.00	1.875	1.875	2.00	2.00	2.00	2.125	2.00	2.50	2.00	2.50	2.00	1.50	2.00	2.00
	1.50	1.75	1.875	2.00	2.00	1.875	1.875	2.00	2.75	2.50	1.875	2.25	1.75	1.50	1.875	2.00	1.25	2.00
	1.625	2.25	2.00	2.50	1.875	2.00	2.50	2.25	3.00	1.50	2.50	2.375	1.50	1.875	1.75	1.50	1.50	2.00
	1.50	2.00	1.875	2.00	1.75	1.75	2.00	2.00	2.00	1.75	2.25	2.25	2.00	1.875	3.00	2.00	1.50	2.00
	1.875	2.625	2.00	2.125	2.00	2.50	1.75	2.00	2.50	2.00	2.00	2.00	2.50	2.00	2.25	1.625	1.25	1.875
	1.50	2.125	1.875	2.00	2.625	2.00	2.00	2.375	2.375	1.75	2.00	2.00	2.25	2.375	2.375	1.50	1.50	2.00
	1.50	2.50	2.00	2.50	2.00	1.50	2.50	2.00	2.50	2.00	1.875	1.875	2.50	2.375	2.50	1.50	1.50	1.625
	1.625	1.375	2.125	2.00	2.50	2.00	2.25	2.00	2.00	2.00	1.75	2.25	2.125	2.25	2.00	1.75	1.50	1.75
	1.625	1.50	2.00	2.125	1.875	2.00	1.625	2.00	2.125	1.875	2.50	2.00	2.25	2.375	2.50	2.00	1.625	1.50
	1.50	1.75	2.125	1.50	1.50	1.875	2.00	2.50	1.875	2.00	1.50	2.00	2.00	1.875	1.875	1.625	1.875	2.125
	2.00	1.50	2.25	2.00	1.75	1.50	1.50	1.875	1.875	2.00	1.75	2.00	2.25	2.00	2.00	2.00	1.50	2.00
	1.75	1.875	1.75	1.75	1.875	2.50	1.875	3.50	1.875	2.125	2.00	2.25	1.625	2.375	2.625	2.00	2.50	1.625
	1.875	1.50	2.375	1.875	2.125	2.25	1.875	2.00	1.625	3.00	2.50	2.25	1.75	2.375	2.00	1.875	2.00	1.875
	2.375	1.75	2.375	2.00	1.50	2.00	2.00	2.00	2.375	2.00	2.00	2.00	2.00	2.00	2.50	1.875	2.00	2.125
	1.375	1.50	1.75	1.75	1.50	2.25	2.50	2.00	2.50	2.00	2.00	2.125	1.875	2.50	1.625	1.875	1.75	2.375
	2.00	2.00	1.875	2.00	1.875	2.00	1.50	2.25	1.50	2.50	1.75	1.875	1.625	1.75	1.50	2.00	1.75	2.50
	2.00	1.50	1.875	2.125	1.875	2.375	2.25	2.50	2.00	2.125	1.875	2.50	2.00	2.00	2.50	1.75	1.50	1.875
	2.125	2.00	3.125	2.25	2.00	2.00	2.00	2.00	1.50	1.50	1.75	2.625	2.25	2.125	1.875	1.875	2.00	1.50
	1.50	2.00	2.00	1.875	2.00	2.50	2.00	2.00	2.125	1.75	2.125	1.875	2.00	2.25	1.75	1.625	2.00	2.50
	1.875	1.25	1.75	1.50	1.50	2.125	1.875	2.125	1.875	2.00	1.50	2.00	2.125	2.50	3.00	1.75	1.75	1.875
	2.375	1.50	1.875	1.50	2.00	2.00	2.125	2.125	1.75	2.00	2.75	1.75	2.00	1.625	1.50	2.125	1.50	1.625
	1.50	2.25	2.125	2.125	1.50	1.875	2.50	3.00	2.00	1.875	2.00	2.00	2.00	2.00	2.75	1.875	1.75	2.375
	1.875	2.00	1.50	2.50	2.50	2.00	2.00	2.00	2.50	2.125	2.75	2.00	2.00	1.875	1.875	1.50	2.00	2.00
	1.50	1.50	2.00	2.00	2.00	1.875	1.50	1.875	1.875	2.00	2.50	1.875	2.125	2.00	1.875	2.00	2.25	2.625
	2.375	2.00	1.875	2.00	2.00	1.50	2.00	1.875	2.50	2.00	2.00	2.50	2.625	2.125	2.75	1.75	2.00	2.00
	1.875	2.50	1.875	2.125	1.825	1.50	1.875	1.75	2.00	2.00	2.25	2.25	1.75	1.875	1.75	1.875	2.00	2.50
	1.875	1.50	1.50	1.625	2.00	1.625	2.00	2.00	2.125	1.75	2.75	2.00	1.50	2.00	2.375	1.625	1.375	1.75
	1.75	1.50	3.375	1.75	1.50	2.50	1.875	1.75	3.00	2.00	1.375	2.25	2.00	2.625	2.125	1.75	2.00	1.50
	1.50	1.375	2.00	2.125	1.625	1.375	2.00	1.75	2.625	2.00	2.00	1.875	2.125	2.50	2.375	1.75	1.875	1.875
	1.50	2.00	2.00	1.625	1.50	1.50	1.625	2.00	3.00	2.125	2.25	1.875	2.625	2.125	2.375	2.00	1.875	2.00
	2.00	1.625	3.375	2.00	2.00	2.375	2.00	1.625	2.50	2.25	2.125	2.00	2.375	2.25	1.875	2.50	1.625	1.625
	1.875	1.75	1.50	2.00	1.50	2.00	1.50	1.625	2.125	1.75	2.50	2.00	1.75	1.875	1.875	1.75	2.50	2.00
	2.00	1.50	1.75	2.00	1.75	1.875	2.25	2.50	2.125	1.875	2.125	2.125	2.00	2.125	2.125	2.00	1.875	1.00
	2.00	1.75	1.875	2.125	1.875	1.75	2.125	1.625	2.00	2.00	2.50	2.00	2.00	1.875	2.50	2.00	1.875	1.625
	1.75	1.625	2.125	2.00	1.50	1.50	2.00	2.00	1.625	2.00	3.00	3.00	2.00	2.00	1.875	2.25	2.00	2.00
	1.875	1.50	1.50	2.00	1.875	1.75	1.625	1.625	3.00	2.25	2.125	2.50	1.50	1.50	2.125	2.125	2.00	1.75
	2.00	2.00	2.50	2.25	1.875	2.00	2.125	2.625	2.125	2.375	2.375	2.00	1.625	2.125	1.50	1.875	3.00	1.625
	2.625	2.00	1.75	2.625	1.875	2.75	2.00	3.00	2.00	2.00	2.00	2.375	1.875	2.50	2.375	1.75	2.50	2.00
	1.875	1.875	1.875	2.00	2.00	2.375	2.00	2.50	2.375	2.00	2.00	2.25	1.50	2.375	1.375	1.50	2.00	2.00
	1.75	2.00	2.00	1.875	2.00	2.00	2.00	2.50	2.125	1.75	1.375	2.00	2.00	2.50	2.50	1.625	1.625	2.125
	2.00	2.125	1.50	1.625	1.625	2.375	2.50	2.75	2.50	2.125	2.125	3.00	1.875	2.125	2.25	2.00	2.25	2.00
Totals	91.25	91.25	98.75	98.625	92.625	96.875	100.25	106.625	108.50	100.125	106.50	106.00	97.375	106.375	105.75	92.875	92.250	97.125

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′.	2.625	1.0334	B′.	2.625	1.0334	B′.	3.00	1.1811	B′.	3.00	1.1811	B′.	2.625	1.0334	B′.	2.50	0.9842
	B″.	2.625	1.0334	B″.	2.625	1.0334	B″.	3.50	1.3779	B″.	3.00	1.1811	B″.	2.625	1.0334	B″.	3.00	1.1811
	B‴.	3.375	1.3287	B‴.	3.00	1.1811	B‴.	3.00	1.1811	B‴.	3.00	1.1811	B‴.	3.00	1.1811	B‴.	2.75	1.0826
Highest		3.375	1.3287		3.00	1.1811		3.50	1.3779		3.00	1.1811		3.00	1.1811		3.00	1.1811
Minimum measurements.	B′.	1.375	0.5413	B′.	1.375	0.5413	B′.	1.50	0.5905	B′.	1.50	0.5905	B′.	1.50	0.5905	B′.	1.50	0.5905
	B″.	1.25	0.4921	B″.	1.50	0.5905	B″.	1.625	0.6397	B″.	1.375	0.5413	B″.	1.50	0.5905	B″.	1.25	0.4921
	B‴.	1.50	0.5905	B‴.	1.375	0.5413	B‴.	1.375	0.5413	B‴.	1.00	0.3937	B‴.	1.375	0.5413	B‴.	1.00	0.3937
Lowest		1.25	0.4921		1.375	0.5413		1.375	0.5413		1.00	0.3937		1.375	0.5413		1.00	0.3937
Average measurements..	B′.	1.825	0.7185	B′.	1.973	0.7767	B′.	2.005	0.7893	B′.	2.002	0.7881	B′.	1.948	0.7669	B′.	1.858	0.7314
	B″.	1.825	0.7185	B″.	1.853	0.7295	B″.	2.132	0.8393	B″.	2.130	0.8385	B″.	2.128	0.8337	B″.	1.845	0.7263
	B‴.	1.975	0.7775	B‴.	1.937	0.7625	B‴.	2.17	0.8543	B‴.	2.120	0.8346	B‴.	2.115	0.8326	B‴.	1.943	0.7649
Average		1.875	0.7380		1.92	0.7550		2.102	0.8275		2.05	0.8070		2.063	0.8122		1.882	0.7409
Measurements above average..		61			82			58			60			66			86	
Measurements below average..		64			68			92			90			84			84	

TABLE I.—*Measurements of fineness of wools*—Continued.

CALIFORNIA.

EWES, 2 YEARS OLD.

Catalogue number of samples.	601.			602.			603.			604.			605.			606.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.00	1.50	1.75	1.625	1.75	1.50	1.50	1.50	1.50	1.875	1.625	2.125	1.75	2.00	1.75	1.25	1.375	2.00
	1.625	1.75	1.625	1.75	2.00	1.75	1.875	1.75	2.25	2.125	1.875	2.125	1.875	1.75	2.125	2.00	1.50	1.50
	1.625	1.625	2.00	2.00	1.625	2.00	1.875	1.875	1.875	2.125	1.875	1.75	2.00	2.125	2.00	1.50	1.875	2.00
	1.50	1.50	1.625	2.125	2.00	2.125	1.50	2.50	1.75	1.875	2.25	2.25	1.75	1.875	1.875	1.375	1.50	1.625
	1.75	1.50	1.75	2.25	1.75	1.75	1.25	1.75	2.00	1.75	2.50	2.00	1.875	2.375	1.625	1.50	1.75	2.00
	2.00	2.00	2.00	2.00	2.375	1.875	1.50	2.00	1.50	2.125	2.00	1.875	1.875	2.50	1.75	2.00	1.875	2.00
	2.125	2.00	1.50	2.125	2.25	1.50	2.00	2.00	1.375	2.25	1.875	2.125	2.125	2.50	1.75	1.50	1.75	2.375
	2.25	2.00	1.875	1.75	1.50	1.75	1.875	1.75	2.00	2.50	1.75	2.00	2.00	1.50	1.50	1.50	2.00	2.125
	1.875	1.75	2.00	1.50	2.00	1.625	2.00	2.50	1.875	2.00	2.00	1.875	2.50	2.125	1.00	1.125	1.75	2.50
	2.00	1.75	1.75	1.875	2.50	1.50	1.50	2.00	2.25	2.50	2.50	2.00	2.25	2.00	1.625	1.00	1.50	2.00
	2.00	2.125	1.625	1.50	2.00	2.00	1.125	2.125	1.875	2.00	2.75	2.25	2.375	2.00	2.25	1.875	1.625	1.50
	2.25	1.75	1.875	1.50	2.00	1.75	1.75	1.75	1.625	2.125	2.125	1.625	2.00	1.875	1.875	1.875	2.00	1.625
	1.625	1.75	2.00	1.875	1.75	2.00	1.50	1.50	1.75	2.25	2.00	1.75	1.50	1.75	1.75	2.00	1.75	1.75
	2.125	1.75	1.50	1.875	1.875	1.875	1.875	2.50	1.50	2.00	2.00	2.50	2.125	1.50	1.75	2.125	1.50	1.50
	1.50	2.25	1.50	1.625	1.625	2.00	2.00	2.25	2.25	2.50	1.875	1.75	1.50	2.25	2.00	1.25	1.50	1.50
	1.50	2.00	1.25	1.75	1.00	1.25	1.75	1.875	2.125	2.25	1.50	2.25	2.25	2.375	1.875	1.50	1.50	1.625
	2.125	2.25	2.00	1.75	1.625	2.25	2.00	2.125	2.25	2.125	2.125	1.875	1.75	1.625	1.75	1.625	2.00	2.00
	2.25	1.50	1.50	1.625	2.125	1.00	1.75	1.875	1.875	2.375	2.00	2.25	1.75	2.00	2.125	2.00	1.75	2.375
	1.75	1.75	1.75	2.00	2.00	1.50	2.50	2.00	2.00	2.50	2.125	2.00	1.75	2.25	2.25	1.875	2.125	2.50
	2.50	2.00	2.00	1.50	1.875	1.50	1.875	2.125	1.50	1.50	2.25	2.125	1.50	1.75	1.875	1.75	1.75	2.25
	1.25	2.00	1.375	1.75	2.50	1.00	2.00	2.00	1.625	2.00	2.375	2.25	2.50	2.00	2.25	2.00	2.00	2.50
	1.625	2.50	2.125	1.625	1.625	2.00	1.625	1.875	2.00	1.625	1.50	2.125	1.75	1.875	2.125	1.50	1.75	2.125
	2.00	1.75	2.00	1.50	2.00	2.125	1.25	2.125	2.125	1.75	1.875	1.875	2.125	2.00	2.00	1.625	1.50	1.50
	2.00	1.875	1.75	1.50	1.75	1.50	2.00	1.875	2.25	1.625	1.50	2.00	2.25	1.50	2.00	1.375	1.875	1.75
	2.25	1.75	2.00	1.75	2.00	1.75	1.75	1.50	2.25	1.75	3.00	3.00	1.875	2.125	2.00	1.25	1.50	2.00
	1.875	2.00	1.75	2.00	2.00	1.625	1.25	1.625	1.875	1.50	1.75	3.125	2.00	2.25	1.625	2.00	1.75	2.125
	2.00	1.75	2.00	2.00	1.75	1.50	1.25	2.125	2.00	1.875	1.50	2.25	2.125	2.25	1.625	1.50	1.75	1.75
	2.375	1.50	1.75	1.25	1.75	1.75	1.125	2.625	1.75	1.375	2.00	2.00	1.50	1.75	2.25	1.375	1.50	2.25
	2.00	1.875	1.875	1.875	1.875	1.625	1.625	1.875	1.625	1.25	1.50	2.00	1.625	1.75	2.50	1.875	1.50	2.375
	2.00	1.875	1.625	2.00	2.00	2.00	1.75	2.00	1.75	1.50	2.00	1.875	2.00	2.125	1.50	1.25	2.50	1.50
	1.625	2.00	1.625	1.375	1.375	1.375	1.25	1.75	1.50	1.75	2.125	2.125	1.875	2.00	1.375	1.125	1.375	1.625
	2.00	1.75	2.25	2.125	1.875	1.00	1.125	2.125	1.75	1.50	2.125	2.25	2.50	1.75	1.50	1.375	2.25	1.75
	2.25	1.50	1.50	2.00	1.625	1.125	1.375	2.00	1.75	1.625	2.00	2.375	2.50	2.00	1.125	1.50	2.00	1.875
	1.75	1.75	1.50	1.50	1.50	1.50	1.50	1.875	1.875	2.00	1.625	2.25	1.625	2.50	1.50	2.00	2.375	1.50
	2.00	1.50	2.00	1.875	1.625	2.00	1.125	1.875	2.25	1.00	1.50	2.50	2.25	1.375	1.75	1.50	1.375	2.00
	1.625	1.625	1.625	1.75	1.75	1.75	1.125	2.00	2.00	1.75	1.875	2.00	2.125	2.50	2.25	1.25	2.25	1.625
	2.25	2.125	2.00	1.75	2.25	1.50	1.50	1.625	2.50	1.625	1.75	1.875	1.625	1.875	3.00	1.375	2.00	2.625
	2.00	1.50	1.75	1.625	1.875	1.875	1.875	1.75	2.375	2.125	2.00	2.50	1.50	1.625	2.25	1.75	1.625	1.375
	2.125	2.25	1.875	2.125	1.75	1.25	1.75	1.75	1.625	1.50	2.00	2.00	1.50	2.00	2.375	1.25	2.25	1.375
	2.00	1.625	1.875	1.50	1.50	1.625	1.375	1.625	1.50	2.50	2.00	2.00	1.50	1.75	2.00	1.625	2.375	1.625
	1.875	2.00	1.625	2.25	2.00	2.25	1.50	2.00	2.00	1.625	1.50	2.125	1.50	1.875	1.75	2.00	2.50	1.625
	2.25	1.875	2.00	1.50	2.00	2.50	2.375	1.50	1.50	1.875	2.125	2.00	1.625	2.25	1.625	1.75	1.75	1.875
	2.00	2.00	2.00	1.75	2.50	1.50	1.50	1.875	2.125	1.125	2.00	2.00	1.50	1.625	1.75	1.125	2.50	2.50
	2.125	1.625	2.25	1.875	1.75	2.00	1.25	1.75	1.75	1.625	2.75	2.50	1.75	1.625	2.00	2.00	1.75	1.25
	2.00	1.50	1.875	1.50	1.375	2.00	1.125	2.00	1.875	2.00	2.50	1.875	1.875	2.50	1.625	1.25	1.625	1.75
	2.00	1.75	2.00	1.50	1.25	1.375	1.00	1.50	1.75	1.375	1.75	1.625	2.00	2.25	2.00	1.375	2.00	1.875
	1.875	1.50	1.75	1.625	1.125	1.875	1.875	2.125	2.00	2.00	2.50	1.75	2.00	2.00	1.75	1.625	1.875	1.125
	2.125	1.875	1.875	1.50	2.00	2.00	1.75	2.00	2.125	1.625	1.875	1.875	2.00	1.50	1.625	1.625	2.50	1.50
	2.00	2.00	2.125	1.75	1.75	1.75	1.75	1.50	1.75	1.50	1.75	2.00	2.25	1.875	2.25	2.00	1.50	2.00
	1.75	2.00	2.00	2.00	1.50	1.75	1.125	1.75	1.625	1.75	2.50	1.875	2.25	2.00	2.125	1.75	1.875	1.50
Totals	103.25	91.250	92.00	87.75	88.50	86.625	79.375	95.750	84.00	92.875	100.250	104.00	95.75	98.50	93.50	80.125	92.375	91.50

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	3.00	1.1811	B′	2.50	0.9842	B′	2.375	0.9350	B′	2.50	0.9842	B′	2.50	0.9842	B′	2.50	0.9842
	B″	2.50	0.9842	B″	3.00	1.1811	B″	2.625	1.0334	B″	3.00	1.1811	B″	3.50	0.9842	B″	2.50	0.9842
	B‴	3.00	1.1811	B‴	2.50	0.9842	B‴	2.50	0.9842	B‴	3.125	1.2303	B‴	3.25	1.2795	B‴	2.625	1.0334
Highest		3.00	1.1811		2.50	0.9842		2.625	1.0334		3.125	1.2303		3.25	1.2795		2.625	1.0334
Minimum measurements.	B′	1.50	0.5905	B′	1.25	0.4921	B′	1.00	0.3937	B′	1.00	0.3937	B′	1.50	0.5905	B′	1.00	0.3937
	B″	1.50	0.5905	B″	1.125	0.4429	B″	1.50	0.5905	B″	1.50	0.5905	B″	1.375	0.5413	B″	1.375	0.5413
	B‴	1.25	0.4921	B‴	1.00	0.3937	B‴	1.375	0.5413	B‴	1.625	0.6397	B‴	1.00	0.3937	B‴	1.125	0.4429
Lowest		1.25	0.4921		1.00	0.3937		1.00	0.3937		1.00	0.3937		1.00	0.3937		1.00	0.3937
Average measurements.	B′	2.005	0.7893	B′	1.755	0.6909	B′	1.588	0.6251	B′	1.858	0.7314	B′	1.915	0.7539	B′	1.603	0.6311
	B″	1.825	0.7185	B″	1.85	0.7283	B″	1.915	0.7539	B″	2.005	0.7893	B″	1.970	0.7755	B″	1.848	0.7275
	B‴	1.840	0.7244	B‴	1.733	0.6822	B‴	1.88	0.7401	B‴	2.09	0.8228	B‴	1.910	0.7519	B‴	1.870	0.7362
Average		1.89	0.7440		1.779	0.7003		1.794	0.7062		1.984	0.7811		1.931	0.7602		1.773	0.6980
Measurements above average		69			61			74			86			76			62	
Measurements below average		81			89			76			64			74			88	

TABLE I.—*Measurements of fineness of wools*—Continued.

	CALIFORNIA.																	
	EWES, 2 YEARS OLD.						EWES, 3 YEARS OLD.											
Catalogue number of samples..	667.			668.			645.			646.			647.			648.		
Number of section.....	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.00	2.75	2.625	1.75	2.00	2.25	2.25	1.75	2.00	1.50	2.00	1.75	2.50	2.00	1.50	2.25	2.50	2.00
	2.00	1.625	3.50	1.875	1.625	2.375	1.875	1.875	2.375	1.125	1.375	1.50	2.00	2.50	1.75	2.375	2.50	2.00
	2.00	2.50	2.50	1.875	1.75	2.00	2.375	1.875	2.125	1.625	1.50	1.75	2.25	2.00	2.125	1.50	1.75	2.75
	2.50	2.00	3.00	1.50	1.625	2.00	2.25	2.375	1.50	2.00	1.625	1.875	1.50	2.00	3.00	2.00	1.50	2.00
	2.125	2.125	2.50	1.50	1.875	2.25	2.50	1.50	2.125	1.50	1.50	1.50	1.75	2.00	1.875	2.25	2.00	1.875
	1.375	1.625	2.375	2.125	1.75	2.00	1.50	2.25	2.125	1.375	1.25	1.50	2.00	2.00	2.00	2.375	1.75	2.00
	2.375	2.50	2.75	1.875	1.75	2.25	2.25	1.50	1.875	1.25	1.75	1.75	2.50	2.00	3.00	1.50	1.875	1.50
	2.50	1.75	2.75	1.875	1.50	2.00	1.375	2.00	1.75	1.25	1.50	1.50	2.50	3.00	1.625	1.50	2.00	1.875
	1.875	1.625	3.00	2.00	1.75	2.25	1.50	1.625	3.50	2.125	1.75	2.00	2.50	1.875	2.00	3.00	1.875	2.00
	1.625	2.50	2.50	1.75	2.25	1.875	1.375	1.50	2.00	1.875	1.50	1.375	2.375	2.00	2.00	1.75	1.875	2.50
	2.25	2.25	3.00	1.625	2.00	2.375	1.375	1.875	1.50	1.50	1.75	1.50	2.50	2.50	1.875	1.875	2.00	1.875
	2.00	1.875	2.375	1.375	2.00	1.75	1.875	1.625	3.00	1.50	1.75	1.375	2.50	2.00	1.75	2.50	1.625	2.00
	2.00	2.00	2.50	1.875	1.625	1.875	2.00	3.00	1.875	1.75	1.75	1.50	2.00	2.50	2.00	2.00	2.00	2.00
	1.875	2.00	2.00	1.625	2.125	2.00	1.875	1.75	1.625	1.875	2.00	1.50	2.50	2.50	2.50	1.875	1.50	2.00
	1.75	2.00	2.125	2.25	1.75	2.125	1.50	3.25	2.00	1.50	1.75	1.75	1.75	2.00	2.75	1.50	1.50	2.375
	2.75	3.00	1.875	1.625	2.00	2.00	1.75	1.625	1.25	1.875	1.50	2.00	1.75	2.00	2.125	2.625	2.125	2.00
	2.125	2.25	2.375	1.75	2.00	2.00	1.50	1.00	2.50	1.25	2.00	2.00	2.00	2.50	2.00	2.00	1.875	1.625
	2.375	1.75	2.00	1.50	1.875	2.50	2.00	1.50	1.50	1.375	1.50	1.875	3.00	2.25	1.50	1.875	2.00	1.75
	1.75	2.25	2.00	1.50	1.50	2.125	1.50	1.875	2.00	1.50	1.75	1.375	2.50	2.50	1.50	2.375	2.00	2.00
	2.375	2.00	6.375	1.875	1.50	2.00	3.25	2.50	1.875	1.50	1.50	3.00	2.125	1.50	1.875	1.75	1.875	1.875
	2.375	2.50	2.50	1.00	2.00	1.875	1.50	1.875	2.50	2.625	1.50	2.00	2.25	2.50	1.50	2.125	2.00	2.00
	2.25	2.50	2.50	2.00	1.50	2.00	1.50	2.25	1.375	1.75	1.50	1.625	2.00	2.25	2.125	1.75	2.125	3.00
	2.50	2.00	2.75	1.875	1.625	2.25	1.50	2.125	1.50	1.875	2.125	1.50	2.50	2.00	2.00	2.00	2.00	3.00
	2.875	2.375	2.375	1.875	1.75	2.50	1.875	1.625	2.00	1.50	1.75	1.75	2.00	2.50	2.00	1.75	2.50	1.875
	2.625	2.00	2.373	2.25	2.00	2.50	2.00	1.625	1.875	2.00	1.375	1.75	2.00	2.00	1.50	2.25	1.625	2.375
	2.25	2.00	2.00	1.75	1.75	2.00	2.50	1.625	2.625	1.875	1.75	1.625	2.25	2.50	2.50	2.00	2.00	1.75
	2.375	1.875	2.125	2.00	1.625	1.625	2.00	2.25	1.375	1.50	1.375	1.375	3.00	1.75	2.25	2.25	1.50	2.00
	2.125	1.625	2.25	1.50	2.00	2.50	2.375	3.00	1.75	1.875	2.00	1.375	2.00	2.00	2.75	2.375	2.00	1.75
	2.50	1.75	2.50	1.75	1.75	2.375	1.75	2.00	1.375	1.125	1.375	1.625	2.00	1.75	3.375	2.00	1.875	2.00
	1.875	1.875	2.375	1.625	1.625	2.125	1.75	1.875	2.375	1.50	1.625	2.25	2.50	2.25	2.00	2.625	2.50	2.375
	2.50	2.50	3.25	1.50	2.00	1.75	2.00	2.625	2.00	1.50	1.75	1.875	2.00	2.50	2.00	2.00	2.75	2.00
	2.50	2.00	1.875	1.625	1.75	2.25	2.00	1.875	1.50	1.50	1.50	1.50	2.00	3.00	2.00	1.50	2.125	2.375
	3.25	2.25	3.00	1.50	2.125	2.00	2.125	3.00	3.125	1.875	2.00	1.50	2.00	2.25	2.50	2.00	2.00	2.50
	3.50	1.75	2.375	1.875	2.25	2.25	1.625	1.875	1.625	2.125	2.00	1.50	2.25	2.50	1.875	2.25	1.75	2.00
	2.125	2.00	2.50	1.875	2.00	1.75	1.125	2.50	2.00	1.125	1.50	1.375	2.50	2.00	2.75	2.00	1.75	2.00
	2.00	2.00	2.50	1.75	2.00	1.50	1.50	2.125	1.625	1.125	1.875	2.00	2.50	2.00	2.50	2.25	1.875	2.50
	2.00	2.25	3.00	1.75	1.50	2.00	1.875	1.75	1.625	1.875	1.50	1.50	2.00	2.00	3.25	2.25	1.875	2.00
	3.25	2.00	2.50	1.50	1.75	2.50	1.875	2.125	2.25	1.50	2.125	1.50	2.00	2.25	3.125	2.50	2.00	2.50
	2.00	2.375	2.125	1.75	2.00	2.00	1.50	1.625	1.625	1.00	1.50	1.50	2.50	2.125	2.50	1.625	2.00	2.00
	2.00	2.25	2.50	1.875	2.00	2.375	2.25	1.875	1.50	1.50	1.50	1.50	2.00	2.375	2.50	2.00	2.325	2.50
	2.125	3.00	2.25	2.00	2.00	2.25	2.00	1.625	2.125	2.00	1.50	1.625	2.25	2.50	2.50	2.50	2.00	3.00
	2.00	2.50	2.50	1.875	1.75	1.875	2.125	1.375	2.00	1.625	1.50	1.875	2.50	2.25	2.50	1.875	1.875	2.00
	2.00	1.75	2.00	2.00	2.00	2.00	2.00	1.50	1.50	1.625	1.50	2.00	2.50	2.00	2.50	2.125	1.875	2.00
	2.375	2.75	1.875	2.00	1.625	2.00	1.75	2.25	2.375	1.375	1.50	1.75	2.50	2.25	2.75	2.00	1.50	2.00
	2.50	2.00	2.50	1.625	1.50	2.125	2.25	1.50	1.625	1.875	1.375	1.625	2.50	1.625	2.75	2.00	1.50	2.00
	1.875	2.25	2.50	1.50	2.00	1.875	1.875	2.00	2.00	1.375	1.625	2.00	2.00	2.00	1.625	2.00	1.50	2.25
	2.625	1.75	2.875	1.50	2.00	2.25	1.75	2.25	3.00	1.50	1.375	2.00	2.75	2.125	1.75	2.00	1.875	1.875
	2.50	2.125	2.50	1.75	2.00	2.00	1.75	1.75	1.875	1.625	1.50	1.375	2.25	3.00	1.875	2.00	2.00	2.00
	2.375	2.50	2.00	2.00	1.75	2.00	2.00	1.875	2.00	1.625	2.50	1.50	2.25	2.50	2.00	2.00	2.50	2.125
	2.00	2.00	2.75	2.50	2.00	2.50	2.50	1.875	2.00	1.625	1.50	2.00	2.00	2.50	1.75	2.00	2.25	2.00
Totals	112.875	106.875	127.25	88.50	90.875	105.00	94.375	96.875	98.875	80.25	82.50	84.75	112.25	121.375	110.25	103.875	97.50	106.75

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	3.50	1.3779	B′	2.50	0.9842	B′	3.25	1.2795	B′	2.625	1.0334	B′	3.00	1.1811	B′	3.00	1.1811
	B″	3.00	1.1811	B″	2.25	0.8858	B″	3.25	1.2795	B″	2.50	0.9842	B″	3.00	1.1811	B″	2.75	1.0826
	B‴	6.375	2.5098	B‴	2.50	0.9842	B‴	3.50	1.3779	B‴	3.00	1.1811	B‴	3.375	1.3287	B‴	3.00	1.1811
Highest.....	.....	6.375	2.5098	.....	2.50	0.9842	.....	3.50	1.3779	.....	3.00	1.1811	.....	3.375	1.3287	.....	3.00	1.1811
Minimum measurements.	B′	1.375	0.5413	B′	1.00	0.3937	B′	1.125	0.4429	B′	1.00	0.3937	B′	1.50	0.5905	B′	1.50	0.5905
	B″	1.625	0.6397	B″	1.50	0.5905	B″	1.00	0.3937	B″	1.25	0.4921	B″	1.50	0.5905	B″	1.50	0.5905
	B‴	1.875	0.7380	B‴	1.50	0.5905	B‴	1.25	0.4921	B‴	1.375	0.5413	B‴	1.50	0.5905	B‴	1.50	0.5905
Lowest	.....	1.375	0.5413	.....	1.00	0.3937	.....	1.00	0.3937	.....	1.00	0.3937	.....	1.50	0.5905	.....	1.50	0.5905
Average measurements..	B′	2.258	0.8889	B′	1.770	0.6968	B′	1.887	0.7429	B′	1.605	0.6318	B′	2.245	0.8838	B′	2.078	0.8181
	B″	2.138	0.8417	B″	1.818	0.7157	B″	1.937	0.7625	B″	1.65	0.6496	B″	2.427	0.9555	B″	1.95	0.7677
	B‴	2.545	1.0019	B‴	2.10	0.8267	B‴	1.977	0.7783	B‴	1.695	0.6673	B‴	2.205	0.7893	B‴	2.135	0.8405
Average	.....	2.32	0.9133	.....	1.896	0.7467	.....	1.93	0.7598	.....	1.65	0.6496	.....	2.29	0.9015	.....	2.054	0.8086
Measurements above average..	.....	74		.....	74		.....	67		.....	59		.....	58		.....	45	
Measurements below average..	.....	76		.....	76		.....	83		.....	91		.....	92		.....	105	

TABLE II.—*Measurements of strain and stretch of wools.*

VERMONT.

RAMS, 2 YEARS OLD.

Catalogue number of samples..	423.				525.				534.				543.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	4.00	2.00	5.75	6.50	10.50	5.00	9.00	7.25	4.75	9.50	3.75	9.25	4.00	2.25	7.25	5.25
	4.50	1.75	4.00	2.75	6.50	3.75	6.00	5.00	7.75	7.00	3.50	7.75	5.00	7.75	2.50	2.50
	8.00	5.00	5.00	6.00	3.00	5.00	5.625	2.25	2.625	4.00	3.00	7.00	5.00	7.25	3.50	6.75
	5.50	5.75	4.75	5.25	11.25	5.00	12.625	5.00	4.375	7.25	7.00	8.50	4.25	7.75	3.00	4.00
	5.75	6.375	6.75	5.75	5.375	5.00	4.25	5.50	3.625	6.75	3.75	6.25	4.75	5.00	5.25	7.50
	4.00	4.50	5.25	6.00	7.00	5.00	6.625	4.00	5.375	9.25	4.75	9.75	3.50	2.75	4.00	8.00
	6.00	2.25	4.00	4.50	5.75	6.00	7.50	6.50	10.75	9.00	5.00	9.00	2.25	7.75	5.50	6.25
	5.25	4.50	6.75	6.375	2.75	1.125	10.25	5.75	3.00	9.25	7.00	7.75	7.00	8.00	5.00	4.25
	7.25	6.875	5.25	2.875	5.00	3.25	5.625	4.75	3.00	4.75	2.625	7.50	3.75	9.50	5.75	6.00
	4.00	2.50	6.375	4.00	5.00	7.75	2.625	1.75	5.625	3.50	10.00	6.00	4.00	6.00	4.00	8.00
	5.00	4.25	5.00	2.875	6.375	8.50	12.00	8.75	4.50	8.25	3.75	6.25	4.00	9.75	5.75	11.00
	6.50	5.50	3.75	1.25	5.00	2.25	4.00	2.50	3.25	7.00	2.625	4.25	4.00	8.00	4.75	5.50
	4.25	1.50	5.75	7.125	4.625	10.00	2.625	5.00	8.375	4.75	2.25	3.75	5.50	8.25	3.50	1.50
	4.25	2.00	5.75	5.00	4.00	5.00	7.00	7.00	3.625	4.00	8.00	4.75	3.00	2.50	4.25	9.75
	5.50	6.50	5.25	3.875	10.50	7.00	5.625	5.25	9.75	4.75	8.00	2.75	3.00	2.00	6.75	7.00
	4.50	3.00	4.75	4.00	4.625	5.75	8.25	7.00	4.00	2.50	4.50	6.25	6.00	5.00	3.00	4.75
	5.00	2.00	6.50	5.75	4.375	3.75	7.75	7.00	4.50	1.00	3.625	5.00	2.00	4.00	5.75	3.75
	6.00	2.50	4.875	4.875	2.25	1.25	4.375	3.00	2.75	3.00	3.625	7.25	5.25	6.00	4.75	11.00
	7.50	5.875	5.00	3.00	5.375	7.00	5.50	6.00	3.625	3.00	5.75	6.25	5.00	6.00	4.00	5.00
	7.25	3.75	6.00	3.00	5.50	4.75	7.25	6.50	7.00	2.00	4.25	8.00	2.00	2.00	6.25	9.00
	6.00	1.25	5.50	2.00	7.375	8.00	6.25	7.00	5.00	4.00	3.625	7.75	2.00	1.00	4.75	8.25
	4.25	1.50	5.00	4.875	5.375	9.75	6.75	9.00	4.00	6.50	4.00	1.75	5.75	7.50	3.00	2.50
	5.50	4.875	4.00	2.875	10.25	7.00	5.375	7.00	4.50	3.00	10.25	5.00	4.50	8.00	4.00	7.00
	6.00	3.75	5.50	4.375	4.375	7.00	3.50	6.75	5.375	7.25	3.50	8.25	3.75	9.00	3.75	5.00
	6.00	3.00	5.75	7.00	4.75	6.50	5.50	8.25	4.25	8.25	6.75	8.50	4.00	7.00	5.25	6.00
Totals	137.75	92.75	132.625	111.875	140.875	130.50	161.875	149.75	125.375	129.50	127.875	154.00	102.25	150.25	115.25	155.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	8.00	123.48	7.125	35.625	12.625	194.86	10.00	50.00	10.75	165.92	9.75	48.75	7.25	111.98	11.00	55.00
Lowest	3.75	57.88	1.25	6.25	2.25	34.73	1.25	6.25	2.25	34.75	1.00	5.00	2.00	30.87	1.00	5.00
Average	5.41	83.50	4.09	20.45	5.78	89.21	5.61	28.05	5.07	78.25	6.07	30.35	4.37	67.45	6.11	30.55
Tests above average	25		25		21		26		16		20		23		25	
Tests below average	25		25		29		24		34		21		27			

VERMONT.

RAMS, 3 YEARS OLD.

Catalogue number of samples..	526.				530.				533.				535.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	6.00	8.25	4.25	9.00	3.25	6.25	3.75	7.75	3.25	7.00	4.00	8.25	5.00	3.25	5.25	7.75
	5.50	8.00	4.00	7.50	3.75	5.50	3.75	6.25	8.00	6.75	6.00	8.50	5.25	7.75	6.00	5.75
	4.50	8.00	6.00	10.00	4.375	6.50	3.625	6.50	7.25	10.00	4.50	7.00	10.00	5.75	4.50	5.25
	9.50	6.50	10.00	9.00	3.75	3.75	3.50	10.25	6.25	6.75	4.00	7.00	8.75	7.75	6.25	7.00
	6.25	9.75	6.00	8.00	5.375	8.25	2.625	6.00	6.00	9.75	4.50	6.00	5.00	7.50	6.125	4.00
	6.00	10.00	6.00	9.00	3.375	5.00	2.625	5.50	5.50	9.75	7.00	9.50	5.00	5.75	4.25	6.50
	6.00	10.00	4.25	8.25	6.50	7.00	4.00	7.00	6.00	8.25	4.50	9.50	7.125	6.25	5.25	1.25
	6.75	9.75	6.00	7.25	4.00	6.50	4.50	9.00	3.75	6.75	3.75	3.25	8.00	6.00	8.25	4.50
	8.00	8.00	7.25	7.00	3.50	8.25	4.25	5.75	6.00	3.75	7.00	8.00	5.25	3.25	4.50	4.875
	6.25	9.00	5.00	2.00	6.375	7.50	6.00	7.25	2.25	3.50	4.25	7.00	5.00	7.75	8.125	8.125
	5.00	9.75	8.75	9.25	4.375	7.00	3.00	3.75	3.00	6.00	6.00	4.25	4.75	6.00	6.00	5.00
	4.75	9.00	4.50	8.25	10.375	8.50	5.00	5.75	4.25	9.25	3.25	5.75	5.00	5.875	6.25	5.25
	4.25	8.00	4.25	8.00	4.75	7.75	5.375	5.75	7.00	3.50	4.00	5.00	5.00	6.00	4.875	4.875
	8.50	10.00	6.00	9.50	4.75	7.75	4.375	5.75	3.50	4.75	5.50	6.25	7.00	5.00	8.00	2.00
	8.00	10.75	6.00	9.25	4.25	7.25	3.375	5.00	2.50	4.50	6.00	9.00	8.75	2.25	6.50	9.00
	7.00	8.75	4.00	9.00	3.625	4.25	4.00	6.00	9.00	5.75	3.75	8.00	8.25	6.75	3.75	5.75
	4.00	8.50	6.75	10.25	3.625	3.00	5.375	3.50	5.00	8.00	6.50	10.00	8.75	2.75	6.25	2.25
	6.00	11.00	4.00	7.00	3.375	4.50	6.00	6.00	10.00	7.00	4.50	7.00	4.00	3.50	6.375	6.125
	5.25	8.25	4.25	8.00	1.00	8.00	6.00	5.75	4.25	3.00	3.25	3.00	5.25	3.00	6.75	7.75
	6.00	7.25	6.00	9.50	2.625	4.25	2.50	3.50	5.00	2.75	6.00	6.75	5.75	8.75	5.25	5.25
	4.00	6.00	11.25	9.00	2.75	4.25	4.375	5.25	5.00	6.00	3.25	5.75	8.50	3.875	5.75	8.125
	7.50	5.75	4.00	8.00	1.50	8.00	3.375	4.00	6.00	2.00	4.50	9.50	6.00	5.875	11.25	4.25
	5.00	6.50	5.50	9.50	4.50	5.25	7.75	6.50	3.00	7.00	3.75	8.00	7.25	5.75	5.25	5.50
	4.75	9.75	7.00	7.75	9.375	8.25	4.625	8.25	4.50	5.50	5.25	2.25	6.50	5.50	6.25	5.00
	6.25	7.00	6.25	6.00	3.25	4.00	3.625	3.75	6.00	10.50	7.00	7.00	5.25	6.75	4.00	4.00
Totals	149.00	211.00	147.25	203.50	120.375	159.00	107.375	150.75	132.25	162.75	123.00	166.50	166.375	140.625	151.00	145.875

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	11.25	173.64	11.00	55.00	10.375	160.13	10.25	51.25	10.00	154.35	10.50	52.50	11.25	173.64	9.00	45.00
Lowest	4.00	61.74	2.00	10.00	2.50	38.59	3.00	15.00	2.25	34.73	2.00	10.00	3.75	57.88	1.25	6.25
Average	5.93	91.53	8.34	41.70	4.56	70.38	6.11	30.55	5.85	90.29	6.59	32.95	6.23	96.16	5.63	28.15
Tests above average	29		24		17		25		19		29		22		25	
Tests below average	21		26		33		25		31		21		28		24	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

VERMONT.

RAMS, 3 YEARS OLD.

Catalogue number of samples..	537.				540.				545.				554.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	4.00	8.875	6.50	7.125	4.625	4.25	6.25	6.00	7.00	9.00	8.00	8.25	4.375	5.00	3.875	5.00
	4.50	6.00	4.375	5.25	7.00	7.00	4.50	7.50	7.25	7.00	7.25	7.75	4.125	6.00	5.75	7.00
	8.00	9.25	5.00	7.00	6.00	5.25	9.75	4.00	6.00	4.50	10.25	7.75	4.50	6.125	5.25	7.00
	3.875	7.00	5.25	3.50	2.00	3.00	3.875	5.50	7.00	6.50	8.75	8.25	5.50	5.00	5.00	7.00
	3.875	4.50	5.50	8.00	7.00	5.00	7.375	7.00	8.00	8.00	5.75	4.75	5.75	7.00	4.00	6.00
	5.125	8.75	5.00	5.875	4.50	5.75	4.375	3.25	5.00	3.00	6.25	5.75	4.50	6.50	4.625	7.75
	4.125	6.125	3.875	8.00	5.50	4.00	12.00	7.00	7.00	6.25	8.25	7.00	3.375	7.00	4.50	5.125
	4.50	3.00	5.625	8.00	5.75	5.50	10.00	6.625	9.75	8.75	8.50	8.75	5.25	6.875	5.00	7.00
	0.25	6.75	6.50	8.00	7.50	5.00	6.50	4.00	7.00	5.00	6.75	2.75	5.50	8.00	5.00	6.75
	6.75	6.75	4.375	5.25	4.625	6.00	12.125	7.00	7.00	2.75	9.75	8.75	4.00	6.125	4.25	6.00
	7.00	7.00	4.25	8.00	5.375	5.75	3.00	3.00	6.00	5.00	6.00	3.50	2.875	6.25	5.625	7.00
	4.50	5.125	5.125	8.00	9.125	7.00	3.50	4.00	6.00	2.00	6.50	4.00	4.75	6.00	5.00	6.50
	4.125	5.75	4.00	7.00	15.50	7.00	7.75	5.00	6.75	5.75	7.75	5.50	7.00	7.00	5.625	7.00
	5.125	3.50	9.75	8.25	9.50	7.375	8.375	3.00	11.25	9.25	8.00	7.00	4.375	7.00	4.50	7.00
	4.625	5.00	7.125	6.25	5.625	7.00	5.875	5.00	5.25	7.00	7.75	6.75	4.25	5.75	3.50	6.25
	0.625	3.125	4.375	7.00	4.00	8.25	14.875	5.00	5.75	4.00	7.25	8.00	5.10	8.00	4.00	7.625
	4.00	5.875	4.125	6.75	4.00	5.125	4.75	6.00	6.25	3.75	6.50	5.75	9.50	8.00	3.25	4.875
	5.375	6.75	3.625	6.00	4.625	5.00	12.125	6.75	5.50	4.75	9.00	6.75	5.75	7.125	2.50	4.00
	4.75	6.25	5.125	7.875	4.875	7.00	2.75	4.00	7.75	3.50	8.75	7.75	6.00	7.00	5.25	6.25
	7.25	6.00	6.50	7.50	6.00	7.00	5.25	2.25	9.00	7.00	7.00	6.25	3.75	5.75	4.625	8.00
	5.875	7.50	4.875	7.75	6.125	7.125	10.625	6.00	6.00	5.50	6.00	4.00	5.75	5.25	6.625	7.75
	2.25	4.50	5.375	6.00	16.50	8.00	7.125	4.00	14.50	8.25	6.00	8.00	5.125	5.00	5.50	7.875
	5.50	7.00	7.125	7.75	3.125	5.50	3.625	4.75	7.00	8.00	11.50	5.00	4.25	7.50	4.50	7.25
	5.50	7.25	3.375	4.00	3.125	4.875	5.00	5.75	7.00	8.25	7.50	8.00	3.375	6.25	4.00	8.125
	4.50	7.25	5.25	6.00	8.50	6.00	7.25	4.875	11.75	7.00	7.00	3.75	3.50	5.00	5.75	6.25
Totals	128.00	154.875	133.00	170.125	170.50	150.75	178.625	127.25	186.75	149.75	192.00	159.75	122.125	165.50	108.50	166.25

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	9.75	150.49	9.25	46.25	16.50	254.67	8.25	41.25	14.50	223.80	11.50	57.50	9.50	146.63	8.125	40.625
Lowest	2.25	34.73	3.00	15.00	2.00	30.87	2.25	11.25	5.25	80.03	2.00	10.00	2.50	38.59	4.00	20.00
Average	6.50	100.33	5.25	26.25	6.98	107.73	5.56	27.80	7.57	116.84	6.01	30.05	4.60	70.99	6.64	33.20
Tests above average	21		28		20		24		19		[illegible]		25		26	
Tests below average	29		22		30		26		31		22		25		24	

VERMONT.

	RAMS, 3 YEARS OLD.								EWES, 2 YEARS OLD.							
Catalogue number of samples..	555.				563.				424.				542.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	3.00	1.25	7.25	8.50	10.00	10.00	10.50	8.75	4.375	7.25	4.00	6.00	6.00	11.50	4.25	5.50
	4.25	2.75	3.00	7.00	4.00	6.00	9.75	8.00	4.25	6.00	4.25	6.00	3.50	6.50	6.00	9.25
	5.25	7.75	6.50	6.00	7.00	8.00	4.50	7.00	4.00	6.00	4.25	6.00	3.00	3.25	5.25	7.50
	7.75	5.00	6.50	8.25	10.00	8.00	5.75	7.75	3.375	6.25	3.625	5.75	4.00	6.50	4.375	6.75
	4.00	6.50	12.00	7.00	7.00	8.75	7.00	7.25	5.625	5.50	5.75	7.25	5.625	7.25	6.625	8.75
	2.50	1.50	3.75	4.00	9.25	9.00	3.25	3.00	6.50	8.50	4.75	6.25	3.50	6.75	4.75	2.50
	3.50	4.75	4.00	3.00	5.50	6.25	3.00	5.75	3.625	3.75	6.625	6.25	6.25	8.25	6.25	7.50
	3.75	3.00	6.00	8.50	6.00	9.00	6.50	8.00	3.75	5.60	3.25	5.75	4.25	5.50	4.00	6.875
	10.25	6.25	4.25	3.00	3.75	5.00	3.00	9.00	4.25	5.00	4.25	7.00	4.00	6.00	4.375	8.50
	6.25	7.00	4.00	3.00	15.75	9.00	7.25	5.75	4.00	4.00	5.375	4.50	7.625	8.25	4.00	8.00
	8.25	7.00	4.00	2.75	5.75	8.25	8.00	8.50	4.375	7.75	7.25	3.25	7.25	11.25	5.625	6.25
	3.75	9.75	8.00	9.00	11.00	8.25	5.50	6.50	4.375	7.00	6.75	5.50	10.625	9.00	6.375	7.25
	6.75	7.75	7.50	7.00	4.25	8.25	10.50	7.75	4.00	7.75	5.375	5.25	3.25	6.75	7.00	8.75
	4.00	3.50	4.50	5.50	3.00	4.00	6.25	7.00	4.00	5.75	5.375	5.25	3.375	4.25	7.75	7.25
	11.25	7.75	6.00	2.75	6.50	9.00	6.50	10.00	8.375	4.25	3.375	4.25	6.375	6.75	6.00	7.25
	5.25	4.75	4.50	4.00	5.75	8.75	3.75	5.00	6.625	6.50	5.375	6.25	4.625	6.75	6.25	9.50
	3.00	3.50	4.00	5.00	5.00	8.00	12.00	8.00	4.50	6.50	3.375	2.25	9.25	7.25	3.375	8.00
	7.50	8.25	3.00	7.75	5.00	6.25	6.75	5.00	3.50	5.00	6.375	7.75	5.25	8.25	3.625	6.25
	4.00	3.00	6.50	7.75	2.00	9.00	4.25	7.25	4.25	6.75	5.375	6.75	3.375	6.50	3.375	7.25
	5.25	8.00	7.00	6.75	3.50	5.00	10.50	6.75	9.375	8.00	9.00	3.75	6.50	2.25	6.25	8.25
	4.00	5.00	9.00	7.00	8.50	7.00	12.00	7.50	4.75	8.25	4.375	6.00	7.50	5.75	6.25	10.25
	3.00	2.00	7.00	8.75	10.00	9.00	5.00	7.25	4.625	5.50	5.75	6.00	7.375	6.25	3.625	7.00
	6.25	6.00	3.00	2.00	6.00	7.75	5.50	7.50	5.00	6.75	4.625	6.25	3.25	6.25	4.375	10.75
	3.25	5.00	8.75	3.25	3.50	5.00	3.75	7.25	3.375	4.25	4.25	6.00	5.50	5.50	3.625	9.00
	6.50	7.75	9.00	7.00	7.25	8.50	3.75	9.00	4.00	5.00	6.00	6.25	6.75	4.00	4.75	7.25
Totals	132.50	134.75	149.00	144.50	175.25	191.00	164.50	180.50	118.875	152.25	127.75	141.50	138.00	166.50	128.125	191.375

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	12.00	185.22	9.75	48.75	15.75	243.10	10.00	50.00	9.375	144.69	8.50	42.50	10.625	163.99	11.50	57.50
Lowest	3.00	46.30	1.25	6.25	3.00	46.30	3.00	15.00	3.375	52.09	3.25	16.25	3.00	46.30	2.25	11.25
Average	5.63	86.90	5.58	27.90	6.795	104.88	7.43	37.15	4.93	76.09	5.87	29.35	5.323	82.16	7.157	35.787
Tests above average	23		26		20		29		19		29		24		26	
Tests below average	27		24		30		21		31		21		26		24	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

VERMONT.

EWES, 3 YEARS OLD.

Catalogue number of samples..	522.				523.				524.				527.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	4.50	8.50	4.50	9.25	4.00	5.00	5.25	5.875	4.00	3.75	4.25	6.25	5.00	7.00	3.50	7.25
	5.75	9.25	4.25	9.00	5.75	5.50	9.375	7.25	4.00	8.75	4.25	7.00	7.00	9.25	4.125	6.75
	4.75	9.25	5.00	6.25	4.375	5.50	6.00	5.875	4.50	9.00	4.75	5.50	7.25	8.75	4.25	5.125
	5.00	8.00	5.25	9.25	5.00	7.00	4.00	3.00	4.00	6.50	3.25	3.00	5.75	7.00	3.75	6.125
	3.50	9.50	4.75	8.00	10.75	6.00	2.50	4.75	4.25	8.00	4.00	8.00	3.50	8.25	4.00	3.50
	3.50	6.00	4.75	10.00	6.00	7.25	4.00	6.25	4.50	9.50	2.75	3.75	3.625	5.00	4.375	6.50
	5.50	8.50	3.25	8.00	3.625	7.50	7.00	7.00	3.50	10.00	4.00	7.00	8.75	7.00	3.00	6.75
	8.00	9.00	6.50	10.75	4.25	5.00	7.50	8.00	4.00	9.75	3.00	5.00	4.75	6.75	5.00	7.00
	5.25	8.25	5.25	6.50	4.75	6.00	4.00	6.00	4.00	4.00	5.00	9.00	3.50	8.00	3.625	6.00
	4.50	8.00	4.75	9.00	5.50	8.25	5.00	7.25	7.00	4.75	4.00	8.75	2.75	4.625	5.00	5.75
	4.25	8.00	11.00	7.00	4.875	6.50	6.125	8.00	2.50	8.00	4.50	9.00	8.00	8.00	4.00	8.00
	7.00	9.00	4.00	8.00	4.50	8.00	4.00	5.75	4.75	8.00	6.00	9.00	4.875	8.00	7.25	7.25
	3.50	7.25	4.75	6.75	5.625	8.00	4.00	6.00	4.00	8.50	5.25	5.25	3.00	5.00	6.50	6.00
	3.50	7.75	4.00	5.00	5.875	6.50	3.875	7.00	8.00	7.50	4.00	8.00	2.25	7.25	6.375	9.00
	4.25	7.50	3.75	8.75	7.25	6.00	3.125	5.00	2.25	6.50	4.00	8.75	3.875	6.00	7.00	6.125
	4.00	4.75	8.50	8.25	5.50	7.00	4.375	7.50	2.75	5.00	3.75	5.50	4.50	4.50	3.50	8.00
	5.75	8.75	7.50	9.50	5.75	6.00	4.00	8.00	6.75	8.75	3.25	5.25	5.375	6.00	4.875	6.25
	8.00	9.00	4.00	8.75	4.75	6.00	5.25	9.00	4.75	9.50	6.50	8.50	4.125	4.00	4.25	6.25
	3.50	7.25	4.00	8.00	4.875	6.25	4.375	7.50	5.25	8.50	4.50	7.75	5.25	5.00	5.375	7.00
	5.75	4.75	4.50	7.50	5.875	7.25	6.875	8.00	4.00	9.00	3.75	7.50	5.25	6.875	10.375	7.00
	6.00	8.00	5.75	8.25	3.25	7.00	3.25	8.00	4.00	9.50	4.00	6.00	5.50	4.00	6.125	7.50
	5.00	5.25	8.00	7.00	4.50	3.50	5.625	7.00	3.50	7.25	6.50	7.00	7.75	8.00	2.75	7.00
	6.00	9.25	3.75	7.00	7.50	7.50	5.50	8.00	3.50	7.75	5.50	9.75	4.00	6.375	5.25	5.25
	8.50	8.00	3.50	6.00	5.75	7.00	4.625	7.00	4.25	8.50	3.50	7.00	7.50	5.00	8.375	8.00
	4.00	4.00	4.25	7.75	5.00	6.00	5.75	8.00	6.00	10.00	3.50	6.00	4.50	7.125	4.625	6.00
Totals	130.25	189.75	129.50	196.50	140.50	161.50	126.625	171.00	111.50	197.75	107.00	176.75	127.375	160.75	127.25	164.375

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	11.00	169.78	10.75	53.75	10.25	158.20	9.00	45.00	8.00	123.48	10.00	50.00	10.375	160.13	9.25	46.25
Lowest	3.25	50.16	4.00	20.00	2.50	38.50	3.00	15.00	2.75	42.44	3.00	15.00	2.25	34.73	3.50	17.50
Average	5.20	80.26	7.73	38.65	5.34	82.42	6.65	33.25	4.37	67.45	7.49	37.45	5.09	78.56	6.50	32.50
Tests above average	19		31		22		27		19		31		20		27	
Tests below average	31		19		28		23		31		19		30		22	

VERMONT.

EWES, 3 YEARS OLD.

Catalogue number of samples..	528.				529.				531.				532.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	4.70	5.00	5.50	5.50	4.00	8.00	4.75	9.75	5.60	9.00	3.50	6.00	4.00	2.00	3.50	6.00
	4.00	5.00	6.75	7.75	6.75	9.75	6.25	9.75	4.75	8.75	3.75	8.50	4.375	2.50	7.00	8.00
	3.25	9.50	5.25	4.25	5.00	8.00	6.00	9.00	5.25	8.75	2.75	8.50	8.75	6.00	5.375	6.75
	8.75	7.75	3.375	6.50	4.75	7.75	4.75	7.00	5.00	9.00	4.75	9.00	4.50	4.25	4.00	3.25
	4.25	7.25	3.625	8.50	5.50	9.50	6.25	10.00	4.25	8.50	4.00	10.00	6.25	8.50	8.875	7.125
	2.00	1.00	3.25	2.50	6.00	8.00	6.25	8.75	2.00	7.75	4.75	11.00	9.125	5.25	8.00	7.25
	11.00	7.00	4.25	6.25	5.75	7.00	4.00	6.75	4.75	8.00	3.00	8.00	5.75	6.00	5.375	4.75
	5.625	8.00	6.50	7.50	5.25	7.00	4.00	9.00	3.00	6.25	5.00	10.00	8.875	8.00	10.25	8.25
	3.00	2.75	8.50	5.25	3.75	7.50	8.25	8.75	3.25	8.00	5.00	9.00	4.50	3.00	6.25	7.00
	5.50	6.50	4.00	9.00	3.00	9.75	4.25	7.00	4.25	8.25	4.00	12.00	9.00	7.00	6.375	7.375
	4.00	8.25	5.625	6.50	4.00	9.75	4.00	10.00	6.25	9.50	3.00	8.00	4.375	3.00	7.50	7.00
	3.625	5.00	4.375	6.50	4.75	8.00	4.00	10.00	4.50	10.00	4.25	10.00	6.25	5.125	7.125	7.00
	5.50	6.25	7.75	5.00	5.75	8.00	5.75	11.00	3.25	8.75	3.50	8.75	7.25	7.00	6.375	4.00
	3.375	4.75	12.50	3.00	4.50	8.75	5.25	8.50	2.00	7.50	5.75	6.25	4.625	7.50	6.50	7.50
	6.75	8.25	4.375	6.25	4.75	9.75	5.00	8.75	1.75	3.25	3.00	10.25	4.50	6.125	5.00	5.25
	3.50	6.25	3.75	5.25	3.75	8.75	4.50	11.00	4.25	7.00	3.75	11.00	6.625	9.00	6.375	6.375
	4.00	4.75	4.00	6.00	4.00	8.25	6.25	11.00	3.50	9.50	7.50	11.00	5.375	0.75	5.125	6.50
	4.25	8.25	4.75	7.00	6.25	10.50	4.50	9.00	2.75	9.75	2.00	6.50	4.125	4.50	6.25	4.75
	3.375	7.75	7.25	7.00	5.75	9.25	4.00	5.50	5.75	8.25	3.00	7.00	7.125	5.00	8.25	6.50
	4.50	9.25	3.375	1.00	3.25	5.75	7.00	8.75	6.00	10.00	4.00	10.00	9.25	6.25	6.00	7.00
	6.625	2.00	3.75	1.00	3.25	9.50	5.75	8.50	4.25	10.75	3.00	8.00	5.50	7.00	5.25	4.00
	5.25	6.25	3.00	2.50	5.00	9.25	9.00	7.75	2.75	9.00	3.00	9.25	6.125	3.75	4.125	7.50
	2.625	4.25	3.375	7.00	7.00	10.25	2.75	5.00	3.50	9.75	4.75	10.25	5.75	4.75	5.375	7.00
	6.00	8.00	7.375	5.00	3.00	10.00	5.25	9.75	4.00	9.00	5.00	11.00	5.375	3.125	5.125	5.00
	5.00	4.75	3.00	3.75	5.25	9.75	6.00	8.00	4.25	10.50	5.25	9.00	8.50	7.00	5.375	5.00
Totals	118.50	153.75	129.25	133.75	117.50	214.75	134.75	214.25	100.25	214.75	101.25	228.25	155.875	144.375	150.75	156.125

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	12.50	192.90	9.50	47.50	9.00	138.91	11.00	55.00	7.50	115.76	12.00	60.00	10.25	158.204	9.00	45.00
Lowest	2.00	30.87	1.00	5.00	2.75	42.44	2.00	10.00	1.75	27.01	3.25	16.25	4.00	61.74	2.00	10.00
Average	4.95	76.40	5.79	28.95	5.45	84.12	6.58	32.90	4.03	62.20	8.86	44.30	6.25	96.466	5.95	29.75
Tests above average	19		28		20		31		24		27		28		31	
Tests below average	31		22		27		19		26		23		26		19	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

VERMONT.

EWES, 3 YEARS OLD.

Catalogue number of samples..	536.				538.				539.				541.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	6.00	7.75	5.50	6.00	6.25	7.00	6.25	7.50	5.25	9.875	4.50	8.25	3.75	9.00	4.50	8.50
	5.00	8.00	9.00	7.00	2.625	2.25	4.00	2.50	8.375	10.00	3.00	7.25	6.50	8.50	6.00	8.00
	8.00	10.00	7.00	7.75	3.625	5.75	3.75	7.75	3.375	8.00	4.25	7.75	4.75	8.25	3.25	7.00
	6.00	9.00	4.75	8.00	4.625	5.50	7.625	9.00	2.50	4.875	3.50	8.50	4.25	9.50	3.75	5.00
	6.25	11.00	6.75	8.50	3.625	1.00	6.375	4.75	6.00	8.875	4.25	7.50	5.00	8.50	5.50	10.00
	5.50	6.00	7.00	8.00	6.75	7.75	5.625	7.75	4.50	10.125	6.75	7.00	5.00	6.00	5.75	6.50
	9.25	8.00	8.00	8.00	4.00	6.00	7.50	5.25	4.50	9.25	5.00	7.875	6.00	8.50	4.75	9.50
	8.00	10.25	4.25	8.00	5.50	6.00	6.00	8.25	3.25	8.25	3.00	6.875	4.50	8.75	4.50	9.00
	8.50	7.75	3.25	8.00	5.625	9.00	4.25	6.25	7.00	8.25	6.50	8.75	9.75	9.00	4.25	3.75
	5.50	6.75	5.25	6.25	5.625	8.00	3.25	6.00	4.00	9.00	8.25	8.50	6.00	3.00	2.75	3.00
	4.75	8.75	7.00	5.00	4.50	8.00	6.75	7.25	4.125	9.75	6.25	7.75	6.50	8.50	7.00	7.75
	5.75	5.00	5.00	7.00	7.50	8.75	5.625	5.75	3.50	7.00	4.50	6.75	5.75	7.75	4.00	7.75
	4.75	6.75	6.00	6.25	6.25	8.00	3.25	8.00	4.75	8.75	6.25	7.25	6.00	9.00	6.00	7.50
	5.25	4.75	3.50	1.50	9.00	9.50	6.50	7.00	4.875	8.50	3.00	8.50	8.00	8.50	5.00	9.00
	9.75	7.50	8.75	8.75	7.25	7.25	3.375	6.00	4.375	8.00	5.25	7.75	5.50	6.75	4.00	2.50
	7.50	7.25	6.00	6.75	4.25	5.75	3.375	7.50	4.00	8.875	4.25	4.00	7.00	7.00	4.00	6.50
	8.00	9.00	8.00	9.75	3.00	6.25	5.00	9.75	5.00	8.75	5.75	7.75	6.00	8.00	4.00	9.00
	9.75	6.00	5.00	5.00	4.75	7.00	3.25	7.75	11.625	9.75	5.00	8.875	5.75	8.50	3.75	3.50
	8.50	9.00	5.00	10.00	3.00	5.25	3.375	6.75	7.50	7.50	3.375	9.50	3.75	7.50	5.00	7.50
	4.00	3.00	7.25	10.50	4.375	7.75	4.00	9.25	5.75	9.00	3.375	7.25	3.25	7.00	3.00	5.25
	7.25	8.25	8.00	8.50	3.625	6.25	3.25	6.75	5.00	4.50	2.50	9.25	6.00	8.50	5.75	7.75
	9.25	7.00	7.75	8.75	4.625	7.25	3.25	6.00	7.50	11.00	3.25	6.00	5.50	6.75	6.00	8.50
	8.00	7.75	3.25	5.00	2.625	2.00	4.625	7.75	2.875	6.25	6.00	9.00	3.75	6.00	5.75	9.00
	6.00	5.75	4.00	3.00	3.375	7.25	5.25	7.50	4.375	7.25	4.25	9.50	4.50	9.75	5.50	7.00
	5.25	8.00	5.00	3.00	4.25	5.25	4.75	8.75	5.75	8.125	10.00	9.875	4.00	7.00	4.75	5.00
Totals	171.75	188.25	150.25	174.25	120.625	159.75	120.25	176.75	129.75	209.50	122.00	197.25	136.75	195.75	118.50	173.75

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	9.75	150.49	10.50	52.50	9.00	138.91	9.50	47.50	11.625	179.43	11.00	55.00	9.75	150.487	10.00	50.00
Lowest	3.25	50.16	1.50	7.50	2.625	41.21	1.00	5.00	2.50	38.59	4.00	20.00	2.75	42.444	2.50	12.50
Average	6.44	99.40	7.25	36.25	4.82	74.39	6.73	33.65	5.04	77.79	8.135	46.75	5.10	78.716	7.39	36.95
Tests above average	21		28		30		30		18		27		23		31	
Tests below average	29		22		30		20		22		23		27		19	

VERMONT.

EWES, 3 YEARS OLD.

Catalogue number of samples..	544.				546.				547.				548.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	4.125	5.50	5.25	7.00	4.00	8.50	5.25	4.75	5.25	9.00	4.25	6.00	7.00	8.00	6.50	8.00
	5.50	8.00	5.00	7.25	6.50	7.75	5.25	9.25	4.50	7.375	5.125	6.75	6.75	7.00	8.75	8.00
	4.375	5.125	4.875	5.25	5.25	9.00	4.25	10.25	4.375	8.125	4.625	8.00	8.50	8.00	4.00	8.00
	6.375	7.875	4.50	7.00	5.00	8.00	6.25	10.25	6.00	8.00	5.75	6.00	6.00	7.50	5.25	7.75
	4.625	6.75	3.875	6.75	5.625	9.875	5.25	8.00	5.25	8.00	4.375	6.00	5.25	8.75	6.75	9.00
	4.375	6.00	3.25	8.125	4.25	7.50	4.00	6.75	4.00	8.00	4.25	4.875	3.75	9.00	5.00	7.00
	3.50	5.00	9.00	8.00	7.50	11.00	5.75	9.50	2.875	5.125	4.00	7.50	2.75	7.25	4.00	10.00
	5.25	8.00	5.00	5.50	6.00	4.75	6.375	9.00	5.50	8.00	4.375	8.50	5.00	9.00	6.00	7.75
	6.875	7.875	4.50	7.50	3.50	7.25	5.375	9.75	4.50	7.00	2.625	7.00	4.00	5.75	2.75	8.00
	4.25	4.00	3.375	6.875	3.625	7.75	4.00	5.50	3.50	3.125	5.50	8.00	3.00	6.00	8.25	9.00
	17.00	8.125	5.25	7.875	4.50	7.75	5.00	9.75	4.625	8.00	5.25	6.00	2.75	7.25	3.75	6.00
	4.75	6.375	3.875	6.00	6.50	10.00	5.50	8.875	2.75	4.00	3.375	7.00	3.00	8.25	6.00	7.75
	5.00	6.75	3.00	6.00	4.625	8.00	4.375	9.00	3.50	7.125	5.50	8.125	4.00	7.00	3.00	8.75
	6.875	2.00	6.125	8.375	3.50	5.75	4.00	10.00	6.00	7.50	3.00	6.375	13.00	7.25	8.50	7.75
	5.625	2.375	3.50	6.125	4.75	8.625	8.00	10.00	3.50	7.00	2.50	4.75	6.00	11.00	5.00	8.50
	7.875	7.00	4.50	9.00	5.25	8.875	7.00	9.50	4.625	6.25	3.25	6.00	5.75	8.75	5.50	10.00
	4.625	6.125	4.00	4.625	4.00	11.00	6.00	10.25	5.00	7.25	4.00	7.75	3.25	4.50	8.75	7.25
	5.00	6.875	8.50	7.875	5.50	8.50	4.25	9.25	4.25	7.875	4.50	7.125	6.00	7.50	4.00	9.00
	4.00	7.75	4.50	7.00	3.50	5.875	4.625	7.25	5.50	5.25	5.25	6.00	4.00	9.00	5.75	9.25
	5.375	7.00	6.125	8.00	4.625	8.50	4.50	8.00	5.875	7.50	3.25	5.125	4.75	9.75	6.25	2.00
	5.25	7.00	5.75	6.00	6.25	9.875	4.50	8.875	4.125	5.875	5.875	8.75	4.00	6.25	4.50	9.00
	5.125	8.25	3.625	7.00	6.375	6.25	7.625	8.00	5.50	7.00	3.50	5.25	4.75	7.00	6.00	8.75
	8.50	8.25	6.00	7.00	4.375	7.00	7.50	9.00	5.625	7.00	4.375	7.125	3.25	8.00	7.00	8.00
	4.50	7.125	6.50	8.00	6.75	8.50	6.625	9.125	4.375	9.00	5.50	8.125	5.00	10.25	3.75	9.00
	3.50	6.50	6.50	8.00	4.50	8.50	5.50	9.25	6.125	6.875	5.25	6.875	7.00	7.75	5.25	8.25
Totals	141.75	164.125	126.375	176.125	126.25	204.375	135.75	219.125	117.125	175.25	109.25	169.00	128.50	195.75	140.25	201.75

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	17.00	262.39	9.00	45.00	7.625	117.69	11.00	55.00	6.125	94.54	9.00	45.00	13.00	200.65	11.00	55.00
Lowest	3.00	46.374	2.00	10.00	3.50	54.02	4.75	23.75	2.50	35.86	3.125	15.625	2.75	42.44	2.00	10.00
Average	5.36	82.73	6.80	34.00	5.24	80.87	8.47	42.35	4.52	69.76	6.88	34.40	5.375	82.96	7.95	39.75
Tests above average	17		30		26		31		23		30		22		29	
Tests below average	33		20		24		15		27		20		11		21	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

VERMONT.

EWES, 3 YEARS OLD.

Catalogue number of samples..	549.				550.				551.				552.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	3.375	9.875	3.625	5.50	4.00	6.875	9.375	5.00	3.25	6.50	5.50	7.75	5.75	7.00	6.50	[illegible]
	5.00	7.25	3.625	5.25	4.625	7.75	5.00	[illegible]	4.50	[illegible]	4.25	7.00	6.75	9.50	7.75	[illegible]
	4.375	9.75	6.625	8.50	9.125	7.75	9.375	7.25	5.75	[illegible]	4.00	6.75	3.50	1.25	5.25	[illegible]
	3.50	8.25	6.625	4.00	6.25	8.75	4.00	6.25	7.00	[illegible]	3.50	4.00	3.50	[illegible]	10.00	10.00
	3.625	7.00	[illegible]	[illegible]	11.625	11.25	5.75	8.50	[illegible]	[illegible]	4.25	6.50	6.75	2.50	7.75	8.75
	4.375	5.50	6.50	7.50	5.75	8.75	4.25	[illegible]	[illegible]	9.75	6.00	10.00	5.50	6.50	7.00	10.00
	9.625	9.25	6.50	8.75	2.50	4.75	9.00	7.50	6.50	10.00	6.75	7.25	5.75	[illegible]	4.50	[illegible]
	4.375	7.25	5.75	5.25	4.625	9.00	6.60	[illegible]	5.50	[illegible]	3.25	7.75	[illegible]	[illegible]	7.00	10.00
	[illegible]	8.75	7.25	9.25	8.50	6.75	4.00	4.50	3.75	1.75	6.25	9.25	4.25	[illegible]	[illegible]	[illegible]
	[illegible]	9.75	6.25	7.50	5.50	[illegible]	3.50	6.25	7.50	8.50	6.00	9.25	[illegible]	[illegible]	6.25	9.00
	7.00	8.50	2.625	7.25	4.50	7.125	10.00	[illegible]	4.00	[illegible]	3.25	7.50	[illegible]	[illegible]	4.00	5.00
	3.625	9.25	3.00	7.50	[illegible]	[illegible]	5.50	6.75	4.50	9.50	6.00	[illegible]	[illegible]	[illegible]	10.25	9.75
	9.375	[illegible]	7.625	8.00	7.375	[illegible]	5.50	7.50	[illegible]	7.50	4.75	9.25	8.00	9.00	7.00	8.75
	7.00	[illegible]	7.375	[illegible]	[illegible]	7.50	6.625	2.00	4.00	[illegible]	[illegible]	[illegible]	6.75	[illegible]	4.75	10.00
	5.50	7.875	7.50	[illegible]	4.375	5.50	12.75	7.50	4.75	[illegible]	6.00	9.00	7.00	[illegible]	7.75	9.00
	3.25	5.00	6.25	7.75	7.50	7.875	6.375	7.50	5.75	8.25	[illegible]	8.75	7.75	8.50	[illegible]	9.00
	8.25	[illegible]	3.25	4.875	5.00	[illegible]	5.00	8.75	4.00	9.00	6.50	[illegible]	7.25	9.00	5.75	4.00
	5.375	6.25	3.75	9.00	6.25	[illegible]	[illegible]	2.50	7.75	9.00	4.75	6.00	6.75	9.00	[illegible]	9.00
	3.625	7.00	[illegible]	5.25	7.75	6.25	5.75	[illegible]	4.75	[illegible]	5.75	9.00	5.75	5.00	[illegible]	10.00
	4.00	7.25	4.75	5.75	4.50	8.50	5.75	8.50	3.25	7.25	5.75	7.00	3.25	10.00	5.75	[illegible]
	6.625	6.25	6.50	7.375	[illegible]	6.75	5.50	5.50	5.00	8.50	4.75	9.00	[illegible]	[illegible]	9.50	11.00
	[illegible]	6.50	4.00	7.875	9.375	7.00	7.00	7.00	4.25	7.00	4.25	[illegible]	4.75	[illegible]	7.75	9.50
	5.625	[illegible]	4.50	6.50	6.25	10.75	4.25	[illegible]	4.00	[illegible]	6.00	11.00	8.50	10.00	6.00	9.75
	6.75	5.25	4.25	9.50	[illegible]	8.00	4.375	6.50	[illegible]	1.75	4.50	7.25	7.25	9.25	8.50	[illegible]
	7.00	7.875	4.50	7.875	7.50	9.25	5.25	[illegible]	7.25	9.75	4.75	8.75	7.50	10.00	[illegible]	[illegible]
Totals	135.625	193.75	136.625	177.75	148.75	107.125	157.875	173.00	128.75	198.25	126.50	201.75	160.50	184.75	173.50	221.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	9.625	148.56	9.875	49.375	12.75	196.79	11.25	56.25	7.00	108.042	[illegible]	55.00	11.00	169.79	[illegible]	55.00
Lowest	2.625	40.517	[illegible]	20.00	2.50	38.59	2.00	[illegible]	3.25	50.162	1.75	[illegible]	3.25	50.162	[illegible]	6.25
Average	5.44	83.764	7.43	37.15	6.132	94.65	7.40	37.00	5.10	78.72	[illegible]	40.00	6.88	106.19	[illegible]	40.60
Tests above average	27		[illegible]		20		[illegible]		23		25		[illegible]		31	
Tests below average	23		22		[illegible]		19		27		[illegible]		[illegible]		[illegible]	

VERMONT.

EWES, 3 YEARS OLD.

Catalogue number of samples..	553.				556.				557.				558.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	5.50	[illegible]	2.50	3.75	5.50	5.50	4.625	7.125	4.50	9.00	3.25	[illegible]	5.50	[illegible]	4.25	7.00
	[illegible]	3.50	7.25	[illegible]	6.50	[illegible]	5.125	[illegible]	9.00	10.75	6.50	6.875	4.00	7.00	[illegible]	5.75
	5.00	8.75	4.00	[illegible]	7.625	[illegible]	8.00	7.00	4.00	[illegible]	4.375	7.00	3.25	7.00	[illegible]	4.50
	6.00	6.75	3.00	5.00	11.25	9.50	5.50	[illegible]	[illegible]	9.00	3.625	1.125	5.50	9.00	6.00	7.50
	3.50	4.50	2.75	1.50	4.625	7.75	4.50	6.25	7.50	5.25	4.125	7.875	[illegible]	9.00	3.50	6.00
	4.75	7.00	3.00	2.00	4.875	4.50	7.75	7.00	4.75	8.25	3.375	9.00	2.75	[illegible]	3.00	[illegible]
	3.00	[illegible]	4.50	[illegible]	3.625	[illegible]	3.75	2.75	[illegible]	9.25	3.875	[illegible]	4.50	7.00	[illegible]	5.00
	5.00	[illegible]	[illegible]	4.25	[illegible]	[illegible]	7.50	[illegible]	7.25	[illegible]	[illegible]	6.875	[illegible]	[illegible]	3.25	3.00
	4.00	5.75	2.75	[illegible]	4.75	7.00	5.00	7.00	5.00	7.00	4.125	7.25	4.50	7.75	5.25	[illegible]
	2.75	[illegible]	3.25	4.75	7.25	[illegible]	[illegible]	7.00	5.00	[illegible]	3.75	7.875	4.25	6.50	4.00	1.75
	4.25	[illegible]	2.75	[illegible]	6.875	[illegible]	[illegible]	[illegible]	2.25	7.25	4.75	[illegible]	3.00	7.00	4.00	[illegible]
	5.25	9.00	2.75	[illegible]	7.25	5.00	4.875	[illegible]	7.00	7.75	4.50	5.125	5.25	7.75	5.00	9.00
	3.25	1.25	3.75	[illegible]	[illegible]	5.25	5.375	[illegible]	4.00	9.00	5.25	5.875	4.50	[illegible]	6.50	[illegible]
	3.00	5.75	[illegible]	7.75	5.00	6.75	7.50	[illegible]	[illegible]	[illegible]	3.25	[illegible]	5.25	7.00	5.20	7.00
	3.00	7.75	3.25	[illegible]	[illegible]	[illegible]	5.75	7.00	[illegible]	10.50	[illegible]	3.25	3.75	7.00	5.25	[illegible]
	3.50	3.75	3.00	3.00	5.50	7.00	7.50	8.00	5.25	8.75	5.625	5.125	4.00	7.50	4.00	[illegible]
	4.50	6.50	3.75	4.50	4.75	7.00	4.75	[illegible]	[illegible]	3.25	5.25	7.125	3.00	4.75	4.00	7.00
	3.25	[illegible]	3.25	7.00	7.375	7.00	5.00	7.00	4.25	[illegible]	3.75	4.75	4.75	6.00	5.25	8.25
	6.25	6.00	3.75	[illegible]	4.875	7.00	4.25	5.25	[illegible]	3.00	6.00	3.25	[illegible]	4.00	4.75	[illegible]
	3.25	[illegible]	4.00	3.75	6.125	[illegible]	7.25	8.50	4.50	7.00	2.50	[illegible]	4.25	[illegible]	4.75	7.00
	3.25	[illegible]	[illegible]	3.00	6.50	[illegible]	7.50	[illegible]	2.75	8.25	4.75	4.75	4.50	7.50	6.50	7.50
	5.50	5.75	4.00	6.25	[illegible]	[illegible]	7.00	[illegible]	4.75	[illegible]	2.75	7.50	5.50	7.00	5.25	7.50
	4.00	7.00	4.00	[illegible]	[illegible]	6.75	7.875	6.50	4.00	5.00	4.25	7.50	4.25	7.00	2.25	2.00
	3.50	6.00	3.00	2.00	4.00	[illegible]	5.00	5.75	2.00	6.00	1.75	5.50	4.50	8.75	3.75	7.00
	3.50	7.75	6.75	7.00	5.25	[illegible]	4.375	[illegible]	6.25	[illegible]	[illegible]	6.00	3.75	8.75	6.25	7.50
Totals	102.75	152.50	94.25	112.00	150.625	166.25	151.00	167.875	128.75	194.50	105.875	149.25	109.25	175.75	113.75	155.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	7.25	111.90	9.00	45.00	11.25	[illegible]	9.50	47.50	9.50	146.63	[illegible]	[illegible]	6.50	[illegible]	9.00	[illegible]
Lowest	2.50	38.58	1.25	6.25	[illegible]	55.95	2.75	13.75	1.75	27.01	3.00	15.00	2.75	42.45	1.50	7.50
Average	3.94	68.12	5.20	26.45	6.03	93.071	6.68	33.40	[illegible]	72.39	[illegible]	34.35	4.46	68.84	6.61	[illegible]
Tests above average	22		[illegible]		23		[illegible]		23		20		25		33	
Tests below average	28		24		27		20		27		21		25		17	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

VERMONT.

EWES, 3 YEARS OLD.

Catalogue number of samples..	559.				560.				561.				562.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	4.25	6.00	3.50	7.00	8.00	3.00	4.50	4.00	3.00	1.25	4.00	8.25	4.375	3.25	6.50	6.00
	4.00	5.00	3.25	8.875	3.50	3.25	5.00	8.00	4.25	5.125	6.00	7.75	12.25	7.50	4.75	9.125
	4.875	6.50	4.00	8.00	3.25	2.00	6.00	8.50	4.50	7.75	5.75	7.875	2.75	3.50	4.25	7.00
	4.50	6.625	4.625	6.00	4.00	2.00	4.00	7.25	6.50	5.50	3.625	6.75	5.00	2.50	8.375	8.25
	3.75	6.00	4.25	8.125	5.00	8.00	3.25	7.00	8.375	8.00	4.75	5.00	5.375	7.25	5.75	6.75
	4.50	7.25	2.25	5.00	7.25	7.25	6.00	8.75	4.75	8.75	3.625	7.875	11.00	7.75	11.75	6.50
	4.50	4.875	3.25	3.75	4.00	7.25	6.50	7.00	4.00	2.50	3.25	5.125	4.375	8.00	12.00	5.125
	3.625	7.50	4.75	7.00	7.00	8.75	4.75	3.00	5.625	0.75	2.25	1.00	6.00	9.00	11.625	6.25
	3.00	6.375	4.625	7.00	6.00	5.25	3.75	10.00	4.50	6.00	5.00	5.25	3.50	6.00	6.25	7.00
	4.375	6.00	5.00	7.875	4.50	9.50	1.75	1.50	5.00	7.375	3.75	6.125	12.25	5.25	4.25	6.50
	4.125	7.125	5.875	8.875	4.00	3.25	3.25	4.75	3.875	6.00	3.00	3.50	4.375	6.25	7.375	8.00
	5.625	6.00	3.00	6.875	5.25	8.50	5.50	8.00	4.75	7.00	3.625	6.125	4.375	5.75	3.375	1.25
	4.00	7.00	6.50	8.00	7.00	8.00	6.75	7.75	3.625	5.125	4.25	5.75	11.375	6.25	3.625	5.50
	5.50	8.00	5.25	9.50	7.25	8.00	3.25	8.50	4.625	7.875	3.625	5.00	4.375	7.50	3.625	7.50
	6.25	8.375	2.875	8.00	3.75	9.00	5.00	9.50	2.50	8.875	4.25	6.00	3.375	2.00	7.625	5.75
	5.00	6.375	3.50	7.00	3.00	4.00	5.00	7.00	3.625	7.75	5.375	7.00	3.625	3.50	12.75	8.75
	3.50	8.00	4.00	7.00	5.25	7.00	8.00	9.00	7.00	7.625	4.50	3.00	2.00	6.25	9.375	8.25
	2.875	6.25	4.25	7.00	3.75	7.75	2.25	5.00	2.50	5.125	3.75	4.00	7.625	6.00	5.625	4.50
	5.50	7.25	3.375	8.50	1.75	4.50	2.50	9.00	4.50	5.00	3.00	2.75	13.375	7.00	4.625	8.50
	5.25	8.875	4.375	8.00	2.25	4.00	4.00	7.00	4.00	2.50	3.625	5.75	7.00	5.00	4.625	6.50
	3.25	5.75	3.25	6.875	2.75	3.75	4.50	6.50	5.50	8.00	2.75	6.00	5.375	6.75	3.625	7.50
	3.875	6.25	4.50	7.00	4.75	9.25	4.50	6.25	5.625	7.00	5.25	6.50	2.375	1.25	7.625	8.25
	3.75	8.00	4.50	7.75	2.75	4.00	5.50	8.00	3.75	5.00	2.875	2.50	5.75	8.75	4.375	8.00
	3.25	6.00	3.25	6.125	4.25	7.25	3.50	8.25	4.25	7.75	4.375	6.25	5.00	7.75	5.25	8.75
	3.00	6.125	3.375	6.00	3.00	5.00	4.00	9.00	4.375	7.875	1.50	2.00	4.625	7.50	8.00	8.75
Totals	110.125	178.00	101.875	181.125	108.25	149.50	123.00	179.50	115.00	159.50	97.75	133.125	151.50	147.00	168.00	174.125

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	6.50	100.33	9.50	47.50	8.00	123.48	10.00	50.00	8.375	129.269	8.875	44.375	13.35	206.44	9.125	45.625
Lowest	2.25	34.728	3.75	18.75	1.75	27.011	1.50	7.50	1.50	23.152	1.00	5.00	2.00	30.87	1.25	6.25
Average	4.24	65.442	7.182	35.91	4.625	71.39	6.58	32.90	4.255	65.674	5.81	29.05	6.39	98.621	6.42	32.10
Tests above average	24		19		20		32		22		28		18		29	
Tests below average	26		31		30		18		28		22		32		21	

NEW YORK.

RAMS, 2 YEARS OLD.

Catalogue number of samples..	669.				670.				671.				672.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	3.75	6.875	4.25	8.875	5.50	9.25	4.00	7.25	6.25	4.50	5.50	4.75	2.375	9.00	3.50	8.00
	2.875	8.00	3.875	3.50	5.25	9.75	3.00	6.25	4.50	8.75	5.25	7.25	3.50	7.50	3.625	9.00
	2.00	4.50	2.50	4.50	4.25	9.25	4.75	8.25	5.00	5.25	3.00	7.00	4.50	8.50	5.375	8.00
	2.50	7.00	4.375	7.50	4.25	7.00	7.50	8.50	6.00	8.25	5.25	9.25	2.25	10.75	3.375	9.00
	2.025	6.75	4.00	8.00	3.50	8.75	3.00	8.00	8.00	8.75	6.50	7.75	3.50	8.00	4.75	9.25
	7.25	6.00	4.00	8.00	4.50	7.50	4.00	10.50	3.25	4.75	3.50	3.25	2.25	7.25	2.50	5.00
	3.50	6.00	2.625	5.25	4.25	8.50	3.50	9.25	4.00	8.00	5.50	8.50	2.125	6.75	4.375	9.50
	2.875	5.75	3.625	8.00	3.25	8.00	6.25	9.50	4.50	6.75	6.25	7.75	2.75	9.50	6.125	9.00
	3.50	7.00	2.375	6.25	3.50	9.00	6.00	10.00	6.00	8.75	5.50	8.00	2.75	8.50	1.75	8.50
	5.375	7.50	2.75	7.75	5.25	10.00	4.00	7.00	6.50	7.75	4.75	8.75	4.00	7.875	3.25	11.75
	3.75	8.375	3.50	4.75	3.00	6.50	3.50	7.00	7.00	7.25	4.00	9.00	4.50	9.00	2.375	6.00
	3.50	4.75	4.50	8.00	3.25	8.75	3.75	8.75	5.25	9.00	5.00	7.00	5.125	9.50	3.875	9.00
	2.50	5.875	3.125	7.00	4.25	9.00	6.75	4.00	3.75	3.50	7.50	9.25	3.50	8.00	1.50	8.25
	6.00	7.00	7.25	8.00	4.25	6.25	5.00	7.75	5.00	5.75	3.75	7.50	3.50	8.00	3.50	7.75
	3.25	7.00	4.00	5.00	3.00	7.75	5.00	8.50	6.50	7.00	7.75	8.75	4.25	6.375	2.125	10.00
	4.25	8.00	3.00	7.00	4.00	8.75	7.00	6.50	4.25	6.00	7.25	9.00	3.25	6.75	6.75	8.00
	5.50	8.125	6.00	7.00	3.50	8.25	4.50	8.00	4.75	8.50	4.75	5.50	3.00	8.50	3.50	8.875
	4.00	8.00	3.00	7.50	3.00	5.25	5.50	8.25	5.00	9.25	3.00	2.75	3.75	7.50	2.00	10.50
	1.75	1.875	4.75	6.25	5.25	10.00	4.00	4.50	4.00	9.50	8.50	7.50	3.625	6.875	4.25	9.00
	3.75	7.50	2.75	5.375	4.00	4.00	3.75	7.00	3.50	6.25	4.00	8.00	3.875	7.125	4.00	8.00
	6.25	5.75	8.50	9.00	4.50	10.00	2.75	7.50	6.75	9.25	6.00	6.50	4.00	9.00	3.875	8.00
	5.25	7.125	6.75	8.75	2.75	7.50	4.00	10.25	6.50	8.50	5.25	7.00	4.50	9.75	3.50	7.50
	4.875	7.50	3.00	6.75	4.50	8.00	6.50	6.50	4.75	8.75	7.00	9.25	3.375	6.00	3.00	6.25
	7.125	8.50	2.125	4.25	3.50	8.75	3.25	7.50	4.50	8.00	6.75	9.00	3.50	8.25	3.50	8.00
	3.50	8.00	5.875	8.00	3.25	9.00	5.75	9.25	5.00	8.75	6.50	8.50	4.50	7.00	2.25	8.00
Totals	97.875	168.75	102.50	170.25	99.50	204.75	117.00	195.75	133.50	186.75	138.00	187.75	88.25	201.25	88.625	210.125

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	8.50	131.19	9.00	45.00	7.50	115.76	10.50	52.50	8.50	131.19	9.25	46.25	6.75	104.18	11.75	58.75
Lowest	1.75	27.01	1.875	9.375	2.75	42.45	4.00	20.00	3.00	46.30	2.75	13.75	1.50	23.15	5.00	25.00
Average	4.01	61.88	6.78	33.90	4.32	66.83	8.01	40.05	5.43	83.81	7.49	37.45	3.54	54.64	8.23	41.15
Tests above average	17		31		23		31		23		31		21		14	
Tests below average	33		19		27		10		27		19		29		26	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

NEW YORK.

RAMS, 2 YEARS OLD.

Catalogue number of samples..	673.				674.				675.				676.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	4.25	8.75	5.00	8.75	3.50	7.25	4.25	8.00	8.50	8.00	3.50	8.00	6.00	9.25	4.00	8.00
	4.375	9.00	2.375	9.00	4.75	10.00	5.25	9.50	5.00	6.75	5.25	8.00	10.00	7.75	4.00	8.50
	5.50	9.25	3.75	9.00	4.00	10.00	3.50	7.50	5.50	6.00	4.875	2.50	8.50	10.00	4.25	8.00
	3.00	6.75	4.25	9.25	4.00	8.75	4.00	8.75	6.625	8.00	3.00	6.375	4.00	6.75	4.25	7.50
	5.375	8.50	2.375	5.50	5.75	11.00	6.00	8.50	4.25	6.00	5.875	8.00	4.00	7.75	3.75	7.00
	5.25	6.50	5.375	8.00	4.75	8.50	3.50	8.25	5.625	7.75	5.25	7.00	6.50	9.00	8.75	9.00
	4.00	9.25	2.625	10.50	5.75	9.25	5.50	8.50	4.375	7.00	4.00	8.375	5.00	9.75	7.00	6.50
	3.25	7.00	6.00	8.25	4.00	10.00	5.75	8.25	6.00	5.875	3.00	5.75	7.00	8.75	8.75	10.00
	2.625	9.00	2.625	7.25	5.00	7.00	4.25	6.75	6.00	6.125	7.375	7.00	5.75	8.00	3.50	4.50
	2.625	8.25	3.75	10.25	4.50	7.25	5.00	8.25	6.75	7.50	5.75	8.00	5.00	9.00	4.00	4.75
	4.50	9.75	4.375	8.00	3.50	8.25	4.50	4.00	3.50	0.50	4.25	7.75	5.25	9.00	5.00	8.25
	4.375	9.50	3.25	8.00	5.25	6.75	3.50	7.75	4.00	7.00	4.625	9.00	3.50	9.50	5.00	10.25
	3.375	9.50	3.00	6.25	5.25	7.75	6.00	9.25	4.375	8.00	3.50	7.00	3.75	8.50	3.00	9.75
	5.75	8.50	1.75	1.50	5.00	8.00	7.00	8.75	7.00	8.00	2.50	6.25	5.25	7.25	4.00	9.00
	3.00	6.75	4.625	7.75	3.75	4.25	4.25	7.00	4.125	7.50	7.00	7.50	5.75	8.75	2.75	7.00
	1.625	7.25	3.375	8.00	3.00	1.50	5.75	9.50	3.375	6.00	5.00	6.00	7.50	8.50	5.00	8.75
	2.625	6.25	3.625	9.00	5.00	9.00	3.00	8.00	3.50	6.00	4.875	8.00	6.00	7.75	4.25	8.75
	3.75	7.50	3.50	8.00	6.25	7.00	5.50	7.75	4.375	7.00	4.00	8.00	5.25	10.00	7.00	6.25
	3.625	9.00	4.375	8.75	5.75	9.50	2.75	3.75	5.125	0.00	4.50	8.50	3.25	7.75	3.00	5.00
	2.375	8.00	5.00	7.75	3.50	8.00	4.25	10.00	3.750	4.875	4.125	6.00	4.75	7.00	4.25	8.75
	3.25	6.75	4.25	8.50	5.00	9.50	3.75	7.00	9.125	9.00	6.00	8.50	5.75	8.25	5.00	10.00
	3.625	9.00	4.625	8.75	5.00	9.75	6.75	7.75	3.00	4.75	5.00	6.00	11.00	9.00	7.00	7.75
	2.375	9.00	2.50	8.25	3.75	7.25	2.75	6.75	6.125	3.00	6.50	6.50	3.75	9.75	3.75	8.75
	3.50	9.50	4.00	9.75	6.00	11.00	4.75	8.75	6.50	6.00	4.875	7.50	2.75	8.50	6.75	10.00
	3.50	9.50	4.75	9.00	5.00	9.50	4.00	8.50	8.875	7.50	5.875	7.00	6.50	8.50	4.00	7.50
Totals	95.25	207.00	94.75	213.00	119.00	202.00	115.50	191.75	134.00	166.125	120.50	178.50	140.00	211.00	126.00	195.00

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	6.00	92.60	10.25	51.25	7.00	108.04	11.00	55.00	9.125	140.84	9.00	45.00	11.00	169.78	10.00	50.00
Lowest	1.625	25.08	1.50	7.50	2.75	42.45	1.50	7.50	2.50	38.59	2.50	12.50	2.75	42.45	4.00	20.00
Average	3.80	58.56	8.40	42.00	4.69	72.39	7.88	39.40	5.09	78.56	6.89	34.45	5.32	82.11	8.14	40.65
Tests above average	21		27		27		29		22		29		19		29	
Tests below average	29		23		23		21		28		21		31		21	

NEW YORK.

RAMS, 2 YEARS OLD.

Catalogue number of samples..	677.				678.				691.				692.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	4.50	6.625	6.00	9.50	5.75	8.75	3.50	8.00	4.25	4.125	5.25	6.50	4.50	9.25	6.25	9.875
	4.00	7.50	8.00	10.00	4.00	8.00	4.00	9.00	8.50	6.875	9.75	7.125	7.625	9.75	4.375	6.25
	5.50	6.25	4.00	5.50	4.00	7.25	4.00	9.00	4.375	2.75	4.25	5.125	4.75	8.75	2.00	6.50
	6.50	7.625	8.25	9.00	4.00	7.50	6.00	8.25	6.375	5.50	2.625	4.875	3.50	9.00	3.50	6.50
	3.00	6.50	5.50	7.75	4.00	8.25	3.00	7.25	2.00	2.125	4.625	2.00	3.375	11.00	4.50	8.125
	4.50	7.00	0.375	8.00	4.00	8.50	3.25	5.00	8.00	7.50	5.75	3.125	4.00	7.75	5.50	9.25
	2.375	7.50	3.00	6.375	5.00	5.75	4.00	7.50	2.625	3.50	3.00	2.75	8.75	6.75	2.50	7.00
	1.875	7.00	3.00	6.00	3.75	3.25	4.00	8.25	3.125	5.25	4.25	2.125	4.50	8.25	3.75	10.125
	4.25	5.50	3.125	7.875	5.00	8.25	5.00	7.00	4.25	8.00	3.50	2.50	6.00	5.25	3.375	9.125
	3.25	7.75	2.50	8.50	3.25	5.75	3.50	5.00	3.625	6.00	8.625	7.50	4.375	9.00	4.00	9.875
	4.50	9.25	3.625	6.00	3.25	5.00	3.50	3.75	6.00	5.00	3.125	7.50	5.875	9.50	3.00	9.50
	5.00	9.00	3.25	7.50	6.00	9.00	5.75	7.50	2.00	2.00	10.50	8.125	4.625	9.25	4.50	8.875
	5.625	8.00	5.625	8.75	2.25	7.50	5.00	8.50	4.125	6.00	3.625	3.375	9.00	9.00	5.375	8.00
	6.25	7.00	4.25	8.875	4.25	9.00	4.00	8.00	4.50	7.00	4.75	2.25	4.25	7.50	5.00	9.875
	4.50	7.75	3.25	8.75	3.75	7.75	9.50	8.50	3.50	4.75	5.375	5.00	5.375	8.50	4.375	9.25
	4.375	5.875	4.75	9.50	3.00	9.00	3.75	8.25	4.375	7.875	5.75	4.875	3.50	0.75	3.50	9.25
	3.50	7.875	2.75	8.00	3.75	7.75	6.00	9.50	6.75	2.50	3.75	2.875	3.25	8.50	4.50	9.875
	6.375	9.25	3.00	5.00	4.25	7.25	5.25	5.00	3.50	6.875	6.75	7.00	2.75	8.50	5.75	9.50
	3.50	6.50	4.50	7.75	4.25	8.25	3.25	7.00	8.50	7.25	8.875	7.125	2.625	8.25	2.75	7.75
	5.50	8.00	4.00	5.50	3.25	5.75	7.00	8.75	2.50	2.25	3.375	1.00	3.75	7.75	4.25	9.125
	6.375	9.25	8.25	8.50	6.50	7.25	3.75	7.75	3.25	2.125	8.625	2.875	2.50	8.125	5.00	10.125
	4.375	6.00	3.25	8.875	3.50	7.75	5.00	8.25	7.875	8.00	5.00	4.875	4.625	8.00	3.50	10.50
	4.25	7.125	5.125	6.00	3.50	2.25	4.00	7.25	3.375	7.50	9.50	4.875	4.375	9.25	4.375	10.00
	2.625	7.125	6.375	7.25	3.50	7.00	4.50	8.00	3.125	6.00	5.375	8.125	2.50	9.00	3.75	9.00
	6.375	7.125	3.625	7.875	4.00	8.25	6.50	9.50	5.375	4.875	4.375	4.00	5.50	10.00	3.625	7.75
Totals	112.875	184.375	115.375	193.125	107.25	181.00	116.50	192.75	115.875	131.625	135.375	117.50	115.875	210.625	103.00	219.00

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	8.25	127.24	10.00	50.00	9.00	138.91	9.50	47.50	10.50	162.06	8.125	40.625	9.00	138.911	11.00	55.00
Lowest	1.875	28.94	5.00	25.00	2.25	34.73	2.25	11.25	2.00	30.87	1.00	5.00	2.50	38.58	5.25	26.25
Average	4.57	70.54	7.75	38.75	4.48	69.13	7.48	37.43	5.05	77.92	4.98	24.90	4.37	67.37	8.393	42.965
Tests above average	19		21		18		33		18		25		20		29	
Tests below average	31		25		32		17		32		25		30		21	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

NEW YORK.

Catalogue number of samples..	RAMS, 2 YEARS OLD. 693.				EWES, 2 YEARS OLD. 679.				680.				681.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	3.75	4.00	6.00	8.75	3.25	9.00	6.00	9.50	3.50	6.75	5.00	8.25	4.00	7.75	5.125	7.25
	4.00	6.50	3.00	6.00	3.00	2.75	3.50	8.50	4.375	8.00	3.625	8.00	5.375	9.00	4.50	9.00
	3.25	7.50	5.50	8.00	3.75	9.00	5.25	8.50	5.00	6.25	4.25	6.50	5.25	5.00	4.625	8.00
	4.25	5.50	6.00	8.00	4.00	10.00	3.25	8.50	5.50	8.25	3.375	1.75	5.00	9.00	3.75	8.00
	3.75	6.75	5.25	6.00	4.25	10.00	4.75	9.50	3.375	7.50	5.375	9.50	4.25	6.00	6.00	7.75
	6.75	4.50	5.00	8.00	5.00	9.50	5.50	8.00	4.625	6.75	4.75	10.25	3.00	7.125	6.75	8.00
	4.00	6.50	6.00	9.00	5.25	9.75	6.00	10.00	5.25	8.25	4.25	7.75	4.00	6.75	4.25	4.75
	6.00	8.50	7.75	7.25	3.00	8.50	6.00	9.00	6.25	7.00	5.25	9.00	5.00	9.125	4.00	4.875
	11.25	8.00	9.00	10.00	3.75	9.00	5.25	10.00	5.375	9.00	5.375	4.75	5.00	7.00	4.25	7.25
	7.75	9.00	10.00	7.50	3.75	9.00	3.00	8.75	4.50	6.00	3.50	6.00	5.375	6.00	4.25	7.00
	8.00	8.75	4.00	5.00	3.50	9.25	4.00	7.00	4.00	6.75	4.625	11.25	3.75	8.125	4.50	7.00
	3.00	6.50	6.00	3.00	6.00	10.25	4.25	7.25	3.625	4.50	4.00	10.00	5.625	8.00	3.375	5.25
	6.75	9.50	5.50	4.75	3.00	4.75	3.50	9.50	5.00	10.00	4.375	8.75	5.00	6.00	5.00	7.00
	9.00	8.00	5.75	7.00	4.00	10.25	5.75	8.50	3.50	7.25	3.625	8.00	3.00	4.875	5.00	6.25
	6.00	7.00	5.00	8.50	3.75	9.00	4.00	8.25	4.375	8.00	3.625	3.50	3.625	9.25	4.625	6.00
	6.50	7.25	6.50	8.50	4.25	9.50	3.50	6.50	5.625	11.75	5.00	10.25	2.50	3.25	4.00	6.00
	8.75	10.00	5.75	7.50	4.50	8.00	5.75	9.50	5.50	4.00	4.25	9.25	5.75	7.00	4.25	7.25
	6.00	6.00	4.75	9.00	4.75	9.50	3.25	8.00	4.75	6.25	4.50	8.25	4.625	6.25	5.50	7.50
	6.00	8.50	6.00	6.00	5.00	9.00	6.00	7.25	3.375	4.75	4.625	7.50	3.625	4.875	4.125	9.00
	7.00	8.00	4.00	4.50	3.75	8.50	4.00	7.75	3.625	7.75	5.00	8.75	3.50	7.00	5.875	7.25
	5.00	8.75	4.25	4.75	5.50	8.50	4.00	10.25	5.50	6.75	4.375	7.75	3.25	5.25	9.00	7.75
	4.00	4.00	5.00	4.00	3.00	6.00	3.50	10.00	4.375	6.25	2.625	5.75	5.00	8.00	4.50	8.125
	6.00	5.00	6.00	9.00	6.00	8.00	3.25	6.00	8.25	8.50	8.375	8.875	4.50	6.125	5.125	7.875
	8.00	7.00	6.00	5.75	4.00	8.00	4.75	8.00	4.75	7.25	3.00	2.50	3.25	5.375	5.25	6.125
	4.50	4.00	5.00	5.00	4.00	9.25	5.00	8.75	4.00	8.00	4.75	5.00	5.25	4.50	4.50	6.125
Totals	151.75	175.00	144.00	170.75	103.75	214.25	113.00	212.75	118.00	178.50	111.50	184.125	108.50	166.50	122.625	176.875

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	11.25	173.64	10.00	50.00	6.00	92.61	10.25	51.25	8.375	129.27	11.75	58.75	9.00	138.91	9.25	46.25
Lowest	3.00	46.30	3.00	15.00	3.00	46.30	2.75	13.75	2.625	40.52	1.75	8.75	2.50	38.59	3.25	16.25
Average	5.915	91.29	6.915	34.575	4.335	66.91	8.54	42.70	4.59	70.84	7.253	36.265	4.623	71.35	6.868	34.34
Tests above average	26		28		20		27		24		28		24		30	
Tests below average	24		22		30		23		26		22		26		[illegible]	

NEW YORK.

Catalogue number of samples..	EWES, 2 YEARS OLD. 682.				683.				684.				685.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	2.00	7.00	3.75	9.00	4.00	10.00	2.50	6.50	5.375	8.50	7.00	7.00	9.375	7.50	4.00	8.00
	2.50	4.00	3.00	9.00	4.375	8.25	7.625	8.875	6.625	6.25	5.375	9.00	4.875	7.875	3.25	9.75
	3.50	9.00	4.00	8.50	3.00	9.75	5.00	8.00	8.00	8.25	5.625	9.25	4.25	8.25	5.00	9.875
	3.00	5.75	3.75	6.50	2.50	7.00	4.00	8.50	3.375	3.50	4.50	10.25	3.50	6.00	4.375	7.125
	5.75	11.00	4.25	11.00	11.00	10.25	3.50	4.75	8.50	6.00	5.625	8.50	5.50	7.75	3.625	6.75
	2.50	6.00	3.50	9.00	5.75	7.00	6.25	9.50	4.75	3.25	4.00	9.25	2.875	7.00	5.625	8.125
	3.00	10.00	3.00	9.00	3.50	6.00	3.50	10.00	6.375	6.75	3.375	9.50	5.50	8.00	7.625	8.00
	3.75	8.25	2.75	10.00	4.00	6.875	2.75	7.125	6.625	7.50	3.375	4.50	5.00	7.50	2.25	7.00
	4.00	8.50	2.00	8.50	4.25	9.75	12.25	9.00	4.25	5.875	3.625	7.00	6.00	8.00	3.50	6.00
	4.00	8.50	4.50	9.75	6.50	10.00	6.50	8.875	6.375	7.50	4.375	10.00	4.25	7.00	7.75	7.75
	4.50	8.00	3.25	9.75	6.25	8.75	3.375	7.25	9.25	7.25	3.375	2.75	9.25	9.875	6.50	9.00
	3.00	7.00	3.50	10.25	3.50	5.50	7.00	9.50	4.375	7.50	5.375	10.00	4.00	7.00	3.50	4.00
	5.00	8.75	5.25	8.00	4.375	9.75	4.125	8.00	7.75	6.00	3.625	8.50	8.00	9.00	9.00	4.25
	2.00	2.75	2.75	8.00	6.50	9.00	5.00	10.125	5.25	8.125	2.375	3.50	5.00	8.25	4.00	6.875
	2.50	8.25	3.50	5.00	4.50	7.75	2.50	8.00	8.25	8.25	5.00	9.00	3.50	7.00	10.50	7.50
	4.00	8.00	4.00	11.00	3.25	7.25	4.625	10.75	9.50	8.50	5.00	10.00	4.375	9.00	2.50	4.125
	2.75	4.25	4.00	10.00	6.50	11.00	8.125	10.875	4.75	6.00	4.75	8.50	8.25	7.00	5.75	6.00
	3.00	8.75	4.00	6.50	5.00	8.75	4.00	8.875	5.375	7.50	2.375	3.50	4.375	9.00	6.00	5.00
	4.00	10.75	4.00	10.00	3.00	6.00	2.00	6.125	4.375	10.00	5.25	11.00	4.25	9.875	7.625	7.875
	3.25	9.75	4.00	8.25	9.50	9.00	2.75	7.375	8.00	10.00	4.625	9.50	3.75	9.25	6.00	8.00
	3.25	10.00	4.25	5.00	8.875	9.00	4.50	10.25	3.625	4.25	5.625	9.00	3.625	8.875	6.25	8.00
	3.25	8.00	3.50	9.00	4.75	9.875	4.25	10.75	5.50	9.25	3.00	3.50	4.25	9.00	5.375	7.25
	3.00	7.00	7.50	6.50	8.00	8.25	3.50	8.125	5.00	3.50	3.375	7.50	3.625	9.00	9.375	7.25
	3.50	8.75	3.00	7.00	7.25	9.00	5.25	9.375	4.25	4.75	4.00	8.50	6.00	9.00	3.75	8.00
	4.00	8.75	2.75	2.50	8.50	9.25	4.625	10.125	4.375	6.50	6.00	9.75	3.50	9.00	5.50	4.50
Totals	85.00	196.75	93.75	207.00	138.625	213.00	119.00	219.625	149.875	172.625	110.625	198.75	128.875	205.00	138.625	176.00

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	7.50	115.76	11.00	55.00	12.25	189.07	11.00	55.00	9.50	146.63	11.00	55.00	10.50	162.06	9.875	49.375
Lowest	2.00	30.87	2.50	12.50	2.00	30.87	5.50	27.50	2.375	36.66	2.75	13.75	2.25	34.73	4.00	20.00
Average	3.575	55.18	8.075	40.375	5.153	79.54	8.652	43.26	5.21	80.41	7.427	37.135	5.33	82.27	7.62	38.10
Tests above average	23		31		18		19		23		29		23		[illegible]	
Tests below average	27		19		32		21		27		21		27		23	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

NEW YORK.

EWES, 2 YEARS OLD.

Catalogue number of samples.	686.				687.				688.				689.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	7.00	7.00	6.00	8.00	4.375	8.00	9.50	9.50	6.50	7.75	5.75	8.25	4.75	8.00	6.00	8.50
	6.25	8.50	4.00	8.00	5.75	9.875	6.00	9.00	4.75	7.50	4.75	7.50	4.75	6.50	8.625	7.50
	7.00	8.00	3.00	4.75	4.375	8.75	3.375	9.00	6.00	8.00	6.75	7.75	5.50	2.50	10.375	8.25
	5.50	4.50	3.75	8.50	3.75	6.875	4.00	9.00	6.00	8.00	6.00	10.50	5.00	9.00	6.375	7.25
	4.00	8.00	4.50	8.50	8.00	7.00	2.00	8.00	5.00	7.50	4.50	8.50	4.25	7.00	9.625	9.00
	2.75	4.00	5.00	8.50	5.50	7.00	3.50	8.875	6.75	5.00	4.00	8.50	7.00	9.25	3.00	4.25
	7.00	8.00	5.00	9.25	5.625	6.50	6.50	10.00	7.25	5.00	6.00	11.00	1.75	2.50	7.375	8.00
	5.75	6.50	5.75	8.50	3.25	8.875	4.50	9.375	6.00	9.00	7.25	7.75	3.375	8.125	3.50	6.00
	4.25	7.50	3.00	8.00	6.125	9.00	5.50	9.125	8.00	8.75	4.00	9.00	3.00	8.00	4.375	7.50
	4.50	7.00	4.75	6.50	5.00	8.125	5.625	8.875	5.00	9.00	3.00	2.00	7.625	10.00	1.75	4.00
	4.25	7.50	4.00	9.00	5.75	9.125	2.50	7.75	5.25	9.00	6.00	8.75	9.00	8.75	2.75	7.50
	6.00	10.00	7.25	8.50	4.625	7.00	6.625	9.75	7.25	7.50	6.00	9.50	4.625	8.00	8.00	9.00
	6.00	7.00	4.00	9.00	4.25	9.00	5.625	9.875	6.75	7.50	4.00	8.50	2.375	5.50	6.50	9.00
	4.00	7.25	5.50	7.50	3.50	7.50	2.125	7.50	5.00	7.75	5.00	11.50	5.375	10.00	2.375	7.00
	4.25	7.50	4.25	6.00	6.50	10.00	3.125	9.00	6.75	9.75	4.00	8.50	6.25	8.50	8.25	9.00
	4.25	5.25	7.00	8.00	4.75	9.00	2.50	8.50	3.75	4.00	5.25	7.50	5.625	7.00	4.50	7.00
	3.50	9.00	6.00	8.75	2.625	5.12	4.625	10.75	5.00	10.25	6.00	10.50	4.375	8.50	4.50	7.125
	7.00	9.00	3.00	8.75	4.25	8.00	2.375	7.875	7.50	9.00	5.75	6.00	4.375	5.00	2.625	7.00
	4.00	4.00	7.75	9.00	3.00	9.00	5.00	7.00	5.75	11.00	5.50	10.00	5.00	7.25	6.50	7.00
	5.00	8.50	3.50	8.50	7.00	9.00	4.75	3.75	4.50	6.50	5.75	9.50	4.375	9.25	4.00	5.00
	2.50	5.00	5.25	8.00	6.25	7.00	3.00	7.00	6.50	7.50	4.00	5.00	6.625	6.50	5.00	4.50
	2.00	1.00	7.00	9.75	5.00	8.00	3.25	5.125	3.50	5.25	7.25	9.00	5.75	8.50	6.00	9.00
	6.75	8.00	4.00	9.75	2.375	8.00	7.25	8.125	2.75	2.00	6.00	9.75	10.00	8.75	3.00	2.50
	4.00	11.50	3.00	8.25	2.00	7.00	4.125	9.50	7.25	6.00	6.50	10.00	5.625	10.25	7.25	7.50
	3.00	5.50	3.75	7.00	2.625	6.125	4.50	8.50	6.25	9.00	4.50	10.50	5.00	7.50	5.625	7.00
Totals	120.50	172.00	125.00	204.25	116.25	198.875	109.875	210.75	145.00	187.50	130.50	211.25	129.375	190.125	137.875	175.375

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	7.75	119.62	11.50	57.50	8.00	123.477	10.75	53.75	8.75	135.05	11.50	57.50	10.375	160.13	10.25	51.25
Lowest	2.00	30.87	1.00	5.00	2.00	30.87	5.125	25.625	3.00	46.30	2.00	10.00	1.75	27.01	2.50	12.50
Average	4.81	74.24	7.525	37.625	4.53	69.92	8.191	40.955	5.63	86.80	7.98	39.90	5.345	82.50	7.31	36.55
Tests above average	22		29		24		27		28		28		25		28	
Tests below average	28		21		26		23		22		22		33		22	

NEW YORK.

EWES, 2 YEARS OLD.

Catalogue number of samples.	690.				694.				695.				696.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	3.00	5.00	7.25	8.25	6.375	7.75	3.625	7.875	5.75	7.50	6.00	9.00	7.125	7.375	6.125	6.00
	5.00	9.75	10.25	10.25	8.25	9.50	4.375	9.00	8.50	7.75	8.00	8.00	5.50	6.00	3.00	4.25
	5.25	7.00	5.00	9.75	5.50	8.25	3.75	7.75	4.00	3.00	7.00	9.00	7.875	2.125	14.00	9.00
	5.25	9.75	4.00	7.50	4.125	8.875	4.00	6.25	5.00	6.50	6.00	7.00	12.375	6.00	5.00	6.125
	3.00	6.00	5.00	10.25	5.625	7.75	6.25	7.125	3.00	2.00	8.75	9.00	7.25	6.375	8.00	7.50
	4.00	9.00	6.00	9.75	4.50	8.25	4.50	8.125	4.75	3.50	6.75	9.00	4.00	5.125	8.50	6.00
	6.75	9.75	5.00	10.75	6.00	9.25	5.00	7.875	5.00	6.75	4.00	7.25	5.375	6.00	14.50	7.125
	6.00	10.75	4.75	7.25	3.625	6.125	5.625	8.00	3.00	2.00	3.50	4.00	4.75	8.00	8.625	7.00
	3.50	8.75	4.50	7.50	3.375	8.50	4.50	8.75	8.00	5.00	4.25	7.75	15.50	8.00	5.50	7.25
	5.25	5.00	4.25	9.00	3.875	5.125	7.625	8.00	6.00	5.00	4.00	5.00	4.00	4.125	6.50	7.50
	4.75	9.75	10.75	9.50	5.50	9.875	5.00	9.125	7.75	5.75	7.00	8.00	8.25	5.00	5.50	4.125
	3.50	1.50	5.75	9.00	3.75	8.00	4.25	8.00	7.00	9.00	4.25	6.75	4.00	5.00	6.125	7.375
	5.25	11.00	7.00	10.00	2.625	8.00	6.50	7.50	5.25	9.00	3.00	2.50	9.25	6.25	4.00	6.875
	5.00	10.25	5.50	11.00	4.75	7.875	3.875	9.125	6.00	5.00	5.75	8.00	3.25	3.00	7.00	7.25
	6.25	11.25	5.25	10.00	4.375	9.00	4.125	7.875	7.00	7.00	5.00	8.00	4.25	4.00	2.625	6.00
	4.25	7.50	4.00	9.00	7.625	8.00	4.25	6.50	4.25	7.00	7.00	8.25	6.50	2.875	5.375	7.00
	4.00	8.00	3.25	7.00	2.50	8.125	7.50	7.125	5.50	4.75	6.25	8.50	4.875	6.50	5.00	5.25
	5.00	8.00	5.50	8.75	3.50	8.00	4.50	7.875	5.00	8.25	6.75	7.00	5.375	6.00	6.125	7.00
	3.75	9.75	5.75	10.25	2.00	8.00	5.75	9.875	9.50	8.00	10.00	9.00	2.50	4.875	5.375	7.00
	4.50	9.00	6.00	9.00	5.00	8.00	3.50	6.75	7.00	7.75	5.50	4.25	6.00	5.50	3.50	5.875
	5.25	9.50	7.00	11.00	4.25	8.875	4.75	5.75	7.75	6.50	6.25	8.50	4.375	4.00	4.875	5.875
	6.00	10.25	3.75	9.50	6.625	8.00	6.00	7.50	5.50	3.25	3.50	3.00	6.00	8.00	8.00	8.125
	5.25	10.25	4.75	8.25	6.25	7.50	4.75	10.125	3.50	3.00	6.50	8.00	3.75	4.00	3.00	4.125
	5.25	7.00	3.00	8.75	5.75	10.00	2.875	7.25	7.00	9.00	6.00	8.75	4.375	2.00	7.75	7.00
	5.75	9.25	8.50	10.00	4.125	7.125	6.50	8.00	6.50	8.00	5.00	7.75	2.75	2.25	5.00	6.375
Totals	120.75	210.00	141.75	232.25	110.875	109.75	123.375	107.125	143.50	131.25	111.00	178.75	149.25	130.375	159.00	163.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	10.75	165.92	11.25	59.25	8.25	127.34	10.125	50.625	10.00	154.35	9.00	45.00	15.50	239.24	9.00	45.00
Lowest	3.00	46.30	5.00	25.00	2.00	30.87	3.00	15.00	3.00	46.30	2.00	10.00	2.50	38.58	2.00	10.00
Average	5.25	81.03	8.60	45.15	4.863	75.02	7.937	39.685	5.75	88.75	6.60	33.00	6.125	94.53	5.867	29.345
Tests above average	17		25		21		29		26		32		17		33	
Tests below average	33		25		29		21		24		18		33		17	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

	NEW YORK.				PENNSYLVANIA.											
	EWES, 2 YEARS OLD.				RAMS, LAMBS.											
Catalogue number of samples..	697.				570.				574.				577.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	6.625	9.00	2.25	7.50	5.00	7.00	3.00	3.50	3.625	8.25	3.00	4.25	5.00	7.00	7.00	7.00
	7.00	9.25	8.75	10.375	4.75	6.00	4.50	8.75	2.50	5.00	6.75	7.00	4.75	6.75	6.625	7.00
	13.00	9.00	3.75	6.25	4.75	9.00	4.50	9.00	3.50	6.75	3.00	5.25	5.00	4.00	6.50	8.00
	9.25	9.00	2.00	6.875	3.75	2.00	7.00	8.00	4.625	6.25	6.50	8.50	10.375	7.50	8.00	6.50
	7.625	7.75	9.75	9.50	4.25	7.00	6.00	7.25	3.00	6.00	4.375	6.00	5.75	7.25	6.00	5.375
	4.25	8.50	7.00	9.00	4.25	8.00	4.75	7.75	2.75	5.00	4.25	5.50	9.00	9.00	9.00	7.00
	6.25	9.00	5.75	6.25	3.50	7.75	4.00	7.00	2.375	1.50	4.00	7.00	5.375	6.875	4.75	5.00
	3.625	10.00	3.00	9.50	3.00	8.75	5.00	7.00	4.75	8.00	3.625	3.00	8.50	8.00	8.75	8.00
	7.25	8.00	5.75	9.50	4.25	6.00	4.00	8.50	3.50	7.25	1.75	4.25	16.50	9.00	6.375	6.25
	9.50	9.75	2.625	8.00	3.50	9.75	4.75	7.75	3.625	8.50	4.625	6.75	6.00	8.50	7.25	7.00
	5.375	8.50	5.00	9.00	6.00	7.00	4.00	8.75	2.625	6.00	3.625	8.00	9.00	8.00	7.375	5.375
Actual measurement in grams and millimeters.	5.375	8.00	5.50	9.25	3.25	8.00	4.75	8.00	3.625	7.00	3.75	7.75	8.25	7.125	9.50	6.25
	3.25	8.75	5.25	9.00	4.25	8.00	3.50	4.00	5.375	6.00	4.625	7.75	5.00	3.00	7.625	5.00
	5.50	9.75	6.00	10.00	4.25	8.00	3.25	7.00	4.375	5.50	4.00	8.75	6.25	8.00	10.875	5.00
	2.75	8.50	8.25	8.25	6.00	7.25	4.00	7.50	3.625	4.25	2.625	6.25	6.50	6.25	11.375	7.50
	3.00	6.75	7.75	10.00	7.25	9.75	5.25	7.00	4.50	5.50	3.625	6.00	7.50	6.00	7.00	7.50
	5.375	8.50	4.50	9.00	4.00	6.00	4.00	8.75	3.75	4.25	3.625	7.75	9.375	7.00	6.00	3.00
	6.625	7.875	5.00	8.50	4.00	8.75	3.50	9.75	5.375	6.50	1.625	3.50	5.50	5.25	7.75	7.00
	3.125	6.25	6.50	9.25	5.00	9.00	3.50	6.00	3.625	5.00	4.625	7.00	6.00	6.125	7.00	6.50
	7.50	9.50	5.625	6.25	3.25	4.00	4.00	5.75	6.50	7.00	2.00	7.00	6.125	8.00	5.25	6.50
	4.25	10.00	3.00	9.75	3.25	4.75	4.75	6.50	4.50	7.25	3.625	7.00	9.50	7.875	7.00	6.00
	10.25	8.75	3.00	7.00	4.00	8.25	4.75	7.75	5.375	4.75	4.00	7.25	6.875	7.00	5.25	4.00
	6.625	7.00	8.50	10.00	4.00	8.00	3.75	5.50	3.625	1.75	2.625	5.25	6.25	5.00	6.75	7.75
	7.375	7.875	7.625	7.75	5.50	9.75	3.25	7.50	3.625	6.75	3.25	5.75	5.625	6.00	8.50	6.375
	3.375	7.875	4.375	10.00	4.00	6.50	3.50	9.25	2.625	4.00	2.25	1.50	10.50	9.00	9.00	8.875
Totals	154.125	213.125	136.50	216.75	109.00	184.25	107.25	183.50	97.375	144.50	91.75	154.00	185.00	173.50	187.00	159.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	13.00	200.65	11.00	55.00	7.25	111.90	9.75	48.75	6.75	104.18	8.75	43.75	16.50	254.67	9.00	45.00
Lowest	2.00	30.87	6.25	31.25	3.00	46.30	2.00	10.00	1.625	25.68	1.50	7.50	4.75	73.31	3.00	15.00
Average	5.82	89.93	8.59	42.95	4.33	66.83	7.36	36.80	3.78	58.54	5.97	29.85	7.44	114.83	6.67	33.35
Tests above average	22		27		19		28		19		30		20		28	
Tests below average	28		23		31		22		31		20		30		22	

	PENNSYLVANIA.															
	RAMS, LAMBS.												RAMS, 2 YEARS OLD.			
Catalogue number of samples..	578.				580.				779.				582.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	12.00	9.00	4.00	6.00	14.75	8.25	7.25	9.00	4.625	5.25	5.25	10.00	3.75	8.75	2.75	9.75
	9.75	3.75	6.00	5.50	9.25	10.50	10.00	10.00	6.375	10.00	6.625	7.50	3.00	13.75	4.50	10.75
	5.00	4.75	6.00	6.50	8.00	7.00	9.50	9.75	5.25	6.00	4.75	8.00	5.00	10.00	3.00	10.00
	6.50	5.75	11.50	8.25	7.00	10.50	6.25	9.25	5.75	8.75	7.00	7.25	3.25	5.75	3.00	7.75
	9.75	8.00	10.00	8.25	8.50	8.50	3.75	4.75	7.25	7.00	3.50	7.125	3.00	8.75	3.00	8.75
	9.00	9.50	4.00	2.00	8.25	8.50	5.25	5.75	4.25	5.75	8.50	5.75	4.50	6.25	2.00	11.00
	7.50	7.50	6.50	7.75	7.50	9.00	5.00	7.00	4.50	6.00	5.375	9.125	4.50	9.00	4.25	9.00
	6.75	9.00	6.00	7.00	5.50	6.75	5.25	6.25	6.375	9.00	4.625	5.00	3.75	10.00	4.00	9.25
	6.00	8.75	11.00	4.00	5.75	2.25	5.00	7.00	5.625	7.75	4.375	3.00	3.00	9.50	2.50	5.25
	10.00	6.00	5.00	4.00	7.00	4.25	6.00	4.00	5.625	8.00	5.375	7.75	5.50	10.00	4.50	7.00
	5.25	6.50	7.00	7.25	6.00	7.00	6.00	8.50	6.00	8.00	3.375	7.00	2.75	7.00	4.00	9.50
	7.00	9.00	4.75	4.00	7.00	11.00	5.75	8.75	7.00	8.25	8.00	8.125	2.75	4.00	3.25	10.25
Actual measurement in grams and millimeters.	5.00	5.00	4.50	4.50	8.00	8.50	11.25	9.75	4.00	6.75	4.50	4.25	2.75	11.75	3.25	9.25
	11.50	7.75	5.00	4.00	7.25	7.50	8.00	5.25	7.75	10.00	4.00	7.75	2.50	9.25	3.00	10.00
	6.00	7.25	3.50	5.00	6.00	9.50	13.25	8.25	6.00	9.00	3.00	6.25	4.25	8.25	3.25	10.00
	5.00	7.00	5.25	4.00	4.00	3.75	3.25	4.50	5.75	7.75	5.50	6.50	5.50	10.25	2.25	6.50
	6.00	7.25	7.25	9.00	5.75	2.00	7.50	8.50	8.00	8.25	5.50	7.00	2.50	8.50	2.50	8.50
	4.50	7.00	4.75	2.00	7.75	8.75	6.00	8.00	5.00	8.75	8.50	9.00	3.00	10.75	2.50	11.50
	8.00	7.50	4.50	6.00	6.00	7.00	10.75	7.00	4.75	8.00	3.50	10.75	3.00	7.50	2.75	10.25
	12.50	9.00	11.00	8.75	8.00	8.75	3.75	4.75	4.00	7.75	5.50	7.25	6.00	10.25	3.00	7.00
	6.00	7.00	5.00	7.00	8.50	9.00	7.25	9.00	6.375	6.50	4.00	5.75	3.00	9.00	3.00	10.50
	7.00	8.75	5.50	7.50	8.00	7.00	8.25	6.00	5.625	9.00	3.625	6.00	5.00	9.00	5.75	9.50
	6.00	5.75	6.50	6.25	5.50	9.00	6.00	7.75	3.625	6.25	5.00	7.75	2.75	4.00	3.00	7.00
	6.25	7.00	8.75	7.00	5.75	8.75	6.75	8.00	7.00	8.00	3.75	7.125	3.75	6.50	2.50	9.75
	6.25	7.00	6.50	5.50	6.50	9.00	7.75	6.00	8.25	9.00	6.00	7.00	2.50	3.00	2.75	8.75
Totals	184.50	180.75	159.75	147.00	181.75	192.00	174.75	182.25	144.75	194.75	128.75	178.00	90.25	210.75	80.25	226.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	12.50	192.93	9.50	47.50	14.75	227.00	11.00	55.00	8.50	131.19	10.75	53.75	6.00	92.61	13.75	68.75
Lowest	3.50	54.02	2.00	10.00	3.25	50.18	2.00	10.00	3.00	46.30	3.00	15.00	2.00	30.87	3.00	15.00
Average	6.89	106.34	6.56	32.80	7.13	110.05	7.49	37.45	5.47	84.43	7.46	37.30	3.41	52.63	8.75	43.75
Tests above average	18		28		23		29		25		27		17		29	
Tests below average	32		22		27		21		25		33		33		17	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

PENNSYLVANIA.

RAMS, 2 YEARS OLD.

Catalogue number of samples..	583.				584.				585.				586.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	3.875	8.00	1.625	4.25	2.50	7.00	2.50	4.75	4.00	8.00	3.00	7.125	1.25	7.50	2.50	6.00
	2.00	2.25	2.625	8.00	2.25	8.50	2.75	6.00	4.75	8.00	3.375	7.00	4.00	8.00	3.375	7.50
	1.25	6.50	2.375	10.75	2.50	8.00	2.75	6.50	4.25	7.50	1.875	6.00	3.25	9.25	2.625	8.25
	2.00	6.25	2.375	7.75	2.50	8.00	1.75	2.75	2.00	6.00	1.75	5.875	2.375	7.50	4.375	8.25
	2.25	2.00	2.625	7.00	2.50	9.25	2.00	11.50	2.625	7.25	2.625	7.125	3.375	8.75	4.625	6.75
	3.75	7.00	1.75	6.00	2.75	7.50	1.75	3.00	1.875	3.125	2.625	8.00	3.25	6.50	4.00	5.75
	3.625	7.25	4.625	9.50	2.00	10.00	3.00	9.00	2.50	6.875	1.875	4.75	3.375	7.25	2.00	4.25
	2.625	6.75	2.625	8.50	3.00	8.50	2.25	9.00	2.00	4.375	2.25	7.00	2.00	8.25	4.375	5.25
	1.50	1.75	2.00	7.00	2.00	7.25	3.00	6.25	3.00	8.00	1.875	4.00	2.375	6.50	3.625	7.25
	3.25	6.75	2.625	8.50	3.00	9.00	2.75	8.00	3.125	5.00	2.625	6.25	3.00	6.75	3.625	5.75
	2.625	7.75	1.75	8.75	3.00	10.25	2.00	6.75	2.00	4.00	3.25	6.50	2.00	5.00	4.625	7.75
	2.625	8.00	3.375	9.00	2.00	9.00	3.25	10.75	2.00	2.75	3.50	6.50	2.375	7.00	2.25	5.50
	2.00	4.50	2.25	7.50	3.75	7.25	2.25	4.50	7.50	8.00	1.875	6.00	4.00	8.75	3.75	8.00
	3.50	7.75	2.50	7.00	2.75	7.00	2.75	6.50	3.125	7.00	2.00	6.50	3.00	5.75	2.00	3.25
	2.625	7.25	2.75	8.75	2.50	9.25	2.00	4.00	3.50	4.50	1.875	5.00	4.375	10.00	2.25	5.25
	2.875	6.00	3.00	8.75	2.50	8.75	4.00	10.50	2.625	8.25	2.875	7.875	3.375	6.75	3.75	6.75
	1.375	2.00	3.50	8.00	2.50	2.75	3.00	6.00	1.50	5.50	3.00	6.125	3.50	7.25	3.375	7.75
	1.75	3.00	2.625	5.00	2.00	5.25	3.00	9.00	3.50	6.75	2.00	6.50	4.375	9.75	2.25	6.25
	4.00	9.00	3.00	9.00	3.00	8.75	2.50	12.00	1.00	4.00	3.25	7.00	5.25	7.00	2.625	8.25
	2.00	6.00	2.00	8.25	2.50	9.00	2.50	9.75	2.00	7.00	3.00	6.25	3.625	7.00	5.375	6.25
	2.75	2.00	3.50	6.75	2.25	7.25	3.25	7.50	2.25	7.00	5.00	6.75	2.375	5.50	4.00	8.00
	3.25	10.50	5.50	5.50	2.50	9.25	3.00	5.75	3.375	6.125	2.25	5.50	2.625	6.00	2.50	6.25
	4.375	8.25	3.375	10.00	2.50	9.75	2.00	7.25	2.50	8.125	3.25	6.375	3.875	5.00	4.875	9.00
	2.00	4.50	1.75	7.75	3.00	9.00	2.50	9.50	2.875	6.125	3.25	4.75	2.375	6.00	3.00	7.75
	2.00	1.75	1.75	2.00	2.50	8.25	2.00	4.50	2.00	6.50	2.00	3.75	3.375	7.00	3.375	8.75
Totals	65.875	139.75	67.875	179.25	64.25	210.75	64.00	182.50	69.875	155.75	67.125	154.50	78.25	180.00	84.625	169.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	4.625	71.38	10.50	52.50	4.00	61.75	11.00	55.00	7.50	115.76	8.25	41.25	5.375	82.96	12.00	60.00
Lowest	1.375	21.22	1.75	8.75	1.75	27.01	2.75	13.75	1.00	15.44	2.75	13.75	1.25	19.30	3.25	16.25
Average	2.675	40.52	6.38	31.90	2.67	39.67	7.69	38.45	2.74	42.29	6.21	31.05	3.26	50.30	6.99	34.95
Tests above average	18		14		20		28		22		29		17		17	
Tests below average	32		36		30		22		28		21		23		23	

PENNSYLVANIA.

Catalogue number of samples..	RAMS, 2 YEARS OLD. 587.				WETHER, 2 YEARS OLD. 780.				781.				EWES, LAMBS. 575.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	3.00	10.00	2.25	7.25	3.75	6.75	5.625	7.25	3.00	9.75	5.25	8.00	2.50	5.50	4.125	7.75
	2.25	7.75	2.25	9.75	5.00	8.00	4.00	7.00	3.00	10.25	4.00	10.50	3.00	6.25	2.75	6.875
	2.25	7.00	3.00	9.00	10.375	7.00	4.375	6.00	3.75	8.25	2.75	10.00	13.00	7.00	2.75	6.75
	5.25	10.25	2.00	8.75	5.625	7.25	4.125	4.50	3.25	10.00	4.00	9.25	2.50	5.50	9.00	7.00
	2.50	9.75	3.75	10.50	6.25	7.25	6.125	7.25	4.00	10.00	4.00	9.50	2.625	5.00	1.625	7.75
	2.75	10.75	2.00	9.75	4.00	7.00	3.125	6.00	5.00	9.00	3.50	9.75	2.375	6.50	1.75	7.75
	2.25	10.25	2.75	7.00	4.50	8.25	4.00	6.00	4.375	11.00	3.75	9.75	2.50	7.50	3.25	8.50
	2.00	13.00	4.50	9.50	3.25	3.00	3.00	7.00	5.50	8.75	3.25	9.25	7.50	6.75	4.00	7.00
	3.25	11.00	3.50	8.25	4.625	7.00	4.50	6.75	5.00	10.00	5.25	9.00	5.25	7.25	9.50	9.75
	2.00	9.00	2.50	7.75	4.50	7.875	4.625	4.00	5.00	10.75	4.00	9.75	3.00	4.75	2.50	3.00
	2.00	8.50	2.50	3.75	15.75	7.50	3.375	5.00	4.00	5.00	3.25	10.25	2.50	6.50	2.00	5.00
	2.25	10.75	3.00	8.50	15.50	7.25	3.875	7.00	6.00	8.75	2.50	9.75	5.50	7.00	2.25	8.00
	2.75	9.50	2.00	10.50	9.00	6.125	6.00	7.75	6.25	9.00	3.75	11.00	2.25	5.00	1.375	6.25
	3.25	9.75	2.75	11.00	6.50	6.75	3.00	5.25	3.00	9.50	4.00	8.75	2.625	6.875	2.50	5.25
	1.00	8.50	3.75	8.75	3.75	8.875	3.50	3.00	4.00	8.50	2.25	10.00	2.50	5.75	10.00	9.00
	3.25	12.00	2.75	9.00	1.625	6.50	8.625	6.75	4.00	8.25	4.00	10.00	4.25	6.875	1.375	8.75
	3.00	8.00	3.25	9.50	3.00	5.50	4.00	3.875	7.25	9.75	3.00	10.125	1.75	5.25	1.625	6.50
	2.50	8.75	3.25	11.00	7.375	7.00	10.00	7.00	2.00	8.00	2.75	7.25	1.75	7.00	7.75	7.00
	3.00	9.50	2.25	5.25	4.375	7.00	5.50	6.00	3.50	10.00	7.125	9.00	8.25	7.75	2.50	6.00
	3.75	8.00	4.25	11.75	5.25	5.25	12.375	8.25	8.75	9.00	4.25	10.25	5.375	8.875	1.375	5.50
	1.75	5.50	3.25	8.25	5.125	9.00	6.00	7.00	3.75	10.00	4.50	11.75	2.25	7.50	2.00	7.25
	2.25	7.50	3.25	8.00	3.625	6.50	4.00	8.375	6.00	10.00	6.375	10.00	7.75	7.00	2.50	9.00
	3.00	11.25	2.75	10.00	2.625	7.00	2.25	8.50	4.00	8.75	2.00	10.00	2.875	7.00	5.00	8.50
	3.25	9.50	4.00	9.00	4.00	7.00	6.875	7.00	4.00	7.75	3.375	11.00	10.75	7.75	3.00	8.00
	3.25	9.75	2.75	11.00	3.50	6.00	4.50	8.75	8.00	10.00	3.375	12.00	2.50	6.75	2.00	7.00
Totals	67.75	232.50	73.75	221.50	145.875	167.625	134.375	161.25	116.375	239.00	93.75	245.875	102.125	167.875	84.00	182.125

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	5.25	81.03	12.00	60.00	15.75	243.09	9.00	45.00	8.75	135.05	12.00	60.00	13.00	200.65	9.75	48.75
Lowest	1.00	15.44	3.75	18.75	2.25	34.73	2.00	10.00	3.00	30.87	5.00	25.00	1.375	21.22	3.00	15.00
Average	2.83	43.68	9.08	45.40	5.61	86.59	6.58	32.90	4.263	65.79	9.519	47.59	3.80	58.65	6.90	34.80
Tests above average	23		28		17		32		17		29		15		28	
Tests below average	27		22		21		14		23		21		35		22	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

PENNSYLVANIA.

Catalogue number of samples.	EWES, LAMBS. 576.				EWES, 2 YEARS OLD. 772.			
	Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	4.25	7.25	4.00	7.75	3.50	8.75	5.00	7.125
	2.75	0.75	3.25	8.25	6.50	9.50	2.25	5.50
	6.75	8.50	4.75	7.00	4.00	8.25	3.50	5.75
	4.25	8.00	2.00	6.00	5.00	7.25	2.625	2.125
	10.00	8.75	6.00	8.75	4.75	7.50	4.375	4.75
	2.00	4.00	3.00	8.75	3.25	8.00	4.50	7.00
	2.50	7.00	3.75	7.00	6.00	8.00	3.375	4.75
	3.50	2.50	5.75	9.00	3.625	8.75	5.625	7.50
	4.75	8.75	6.75	8.75	6.00	8.00	4.25	9.25
	4.00	6.50	3.00	7.50	3.375	7.25	6.625	6.00
	2.25	9.00	3.25	9.25	4.625	7.00	4.625	7.00
	6.75	8.50	6.00	8.00	4.50	4.75	4.50	4.00
	3.50	5.00	4.25	7.25	6.25	8.75	3.625	4.125
	4.00	7.75	4.25	7.50	3.625	7.25	6.00	8.375
	3.25	7.00	5.00	10.25	3.25	5.00	7.375	7.00
	4.00	10.00	5.75	9.00	3.375	7.50	5.25	6.00
	3.50	4.75	4.75	6.25	4.625	7.00	5.75	7.25
	4.25	7.25	4.00	5.75	8.00	7.25	5.625	6.375
	4.00	10.25	3.00	6.00	6.375	8.00	7.75	7.50
	4.50	9.00	4.25	8.00	5.625	8.75	2.375	2.00
	4.00	7.00	4.00	9.00	3.375	6.25	7.50	8.25
	3.25	6.50	3.00	6.50	2.375	7.25	6.00	3.00
	2.75	7.25	3.75	8.00	3.00	9.125	6.25	7.00
	4.50	7.00	4.00	5.75	5.00	6.75	3.625	1.75
	7.50	9.75	3.00	6.00	4.50	6.50	4.25	6.25
Totals	106.75	188.00	104.50	191.75	114.50	188.375	123.625	146.625

Catalogue number of samples.	EWES, 2 YEARS OLD. 773.				774.			
	Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	5.25	8.00	6.75	9.00	4.25	8.50	2.75	3.75
	5.25	9.50	4.75	8.00	5.25	7.75	5.00	9.75
	7.00	8.75	5.75	7.50	4.25	9.00	5.00	10.00
	7.25	8.00	5.75	8.00	3.00	7.00	5.00	6.25
	4.00	4.75	6.00	9.75	7.00	9.25	6.00	7.25
	4.75	8.00	4.00	7.00	6.00	8.00	3.75	8.00
	4.25	6.00	5.50	7.50	5.00	8.00	4.50	7.00
	6.50	8.75	5.00	9.00	5.50	7.00	2.25	7.25
	9.25	8.25	4.00	7.75	3.25	6.00	3.50	6.50
	3.75	8.75	3.50	8.00	5.50	8.25	3.75	7.00
	4.25	6.00	5.00	7.50	3.75	4.50	3.75	4.25
	5.25	7.75	5.75	8.00	4.00	8.00	3.75	8.50
	6.00	7.75	6.00	7.00	6.50	7.50	3.00	4.00
	6.00	9.00	6.00	7.75	4.00	7.00	3.25	9.00
	3.50	8.00	6.00	7.00	6.00	6.50	4.00	5.75
	3.25	8.00	4.00	4.75	6.00	7.75	4.00	8.00
	3.50	7.50	4.75	7.75	7.00	7.50	3.75	6.50
	5.00	7.50	4.00	8.50	4.00	8.00	3.00	6.00
	5.75	8.50	4.25	8.00	3.75	7.00	3.75	7.00
	5.00	7.00	4.00	8.25	6.00	7.50	4.50	6.25
	6.25	9.00	3.00	6.75	3.25	4.50	5.75	9.25
	6.00	7.50	5.00	8.75	7.00	7.00	6.00	8.00
	8.00	9.00	3.75	8.50	3.00	6.50	4.00	7.00
	5.75	8.00	4.75	8.75	10.50	9.50	4.75	9.75
Totals	136.75	197.25	121.25	194.00	127.50	181.50	102.25	177.00

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	10.00	154.35	10.75	53.75	8.00	123.477	9.50	47.50	9.25	142.77	9.75	48.75	10.50	162.06	10.00	50.00
Lowest	2.00	30.87	2.50	12.50	2.375	36.66	1.75	8.75	3.00	46.304	4.75	23.75	2.75	44.44	3.75	18.75
Average	4.23	65.29	7.60	38.00	4.75	73.47	6.68	33.40	5.16	79.64	7.83	39.15	4.60	70.99	7.17	35.85
Tests above average	21		26		21		32		24		29		19		10	
Tests below average	29		14		29		18		26		21		31		24	

PENNSYLVANIA.

Catalogue number of samples.	EWES, 2 YEARS OLD. 775.				776.			
	Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	9.75	8.00	14.25	9.50	3.25	7.50	3.25	8.75
	9.50	7.75	7.25	6.50	3.375	7.75	4.00	8.00
	10.75	8.50	8.00	1.75	6.625	10.00	4.00	8.00
	6.25	8.25	6.75	7.75	3.75	8.875	2.25	5.75
	3.75	5.00	5.50	4.75	2.50	5.50	2.25	6.875
	8.25	8.75	10.25	7.75	3.00	8.00	5.625	8.00
	7.50	8.00	4.75	6.00	4.50	9.75	1.75	7.75
	9.75	6.25	6.25	6.00	2.25	7.50	3.50	7.50
	6.50	7.00	6.25	8.50	3.50	10.00	2.75	7.25
	6.00	8.25	8.00	8.00	3.50	9.75	4.25	9.00
	5.00	7.25	4.00	8.00	3.25	7.50	3.25	7.75
	5.50	9.50	8.25	8.00	4.00	8.50	4.375	8.00
	10.25	8.00	8.00	7.50	3.75	7.00	2.00	5.75
	7.00	8.75	8.75	8.75	3.875	9.50	3.25	9.00
	3.00	2.00	5.25	7.75	2.50	8.75	2.375	9.00
	5.25	5.00	7.25	8.00	3.375	7.50	3.50	8.00
	6.00	2.50	11.00	7.75	2.00	5.00	2.25	7.00
	5.25	6.00	7.00	8.00	2.75	7.00	4.50	6.00
	6.00	6.50	7.00	5.75	6.50	8.25	4.00	5.75
	7.00	6.00	11.00	8.00	2.50	5.75	4.00	8.00
	3.50	7.75	6.00	9.00	2.25	7.75	3.50	5.75
	6.00	6.75	6.00	9.00	4.75	9.50	8.75	7.25
	10.75	9.00	15.75	8.50	3.75	8.00	5.75	7.75
	6.00	6.75	12.50	9.00	2.25	8.875	4.25	7.75
	5.00	5.50	5.00	9.00	3.00	8.00	3.00	5.875
Totals	169.50	173.00	200.00	194.50	88.75	201.50	94.375	185.50

Catalogue number of samples.	EWES, 2 YEARS OLD. 777.				778.			
	Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	6.00	6.50	5.625	6.75	6.00	4.75	2.75	8.00
	3.00	6.25	5.00	8.125	5.00	7.75	2.25	8.50
	3.625	6.75	4.00	4.875	3.375	9.25	4.75	5.00
	4.50	7.00	4.25	5.25	4.375	9.25	5.00	6.25
	5.25	7.00	7.00	7.25	3.25	9.75	3.25	8.75
	4.625	6.00	5.50	6.75	1.75	8.25	5.25	8.50
	6.50	8.00	8.125	7.875	6.50	9.75	3.875	9.50
	5.00	4.375	4.00	4.25	4.00	8.75	2.00	5.75
	2.125	6.00	6.125	8.00	8.75	9.00	2.375	7.00
	4.375	7.00	4.375	7.00	3.00	9.00	3.00	8.00
	4.125	7.00	4.50	9.00	9.25	9.00	3.00	9.00
	2.25	5.375	1.125	6.00	3.25	7.125	6.25	8.50
	3.625	7.50	4.125	6.00	3.50	9.00	6.25	8.75
	2.50	5.75	6.00	8.00	6.25	8.00	2.50	8.00
	2.50	2.00	6.25	9.00	2.625	7.75	3.00	9.25
	3.875	7.00	3.25	6.00	7.00	8.00	2.625	8.75
	7.375	7.25	4.75	5.00	3.00	7.00	3.25	8.25
	5.50	5.50	4.50	5.50	4.50	5.50	3.25	9.75
	3.50	6.00	4.875	8.00	2.50	7.25	2.75	7.00
	6.00	8.00	3.00	6.50	4.00	7.75	4.00	9.00
	4.25	4.00	4.625	7.00	2.75	7.25	4.50	8.75
	7.00	8.50	2.875	7.00	3.75	8.00	4.00	7.00
	7.00	8.00	5.00	6.25	3.50	7.25	2.25	9.25
	6.875	8.00	5.25	6.25	2.50	5.50	2.50	6.25
	5.625	8.00	4.00	6.50	2.25	6.50	2.50	8.75
Totals	117.00	162.75	123.625	168.125	111.625	195.375	83.125	201.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	15.75	243.09	9.50	47.50	8.75	135.05	10.00	50.00	8.125	125.41	9.00	45.00	9.25	142.77	9.75	48.75
Lowest	3.00	46.30	2.00	10.00	1.75	27.01	5.00	25.00	2.125	32.798	2.00	10.00	1.75	27.01	4.75	23.75
Average	7.39	114.06	7.35	36.75	3.66	56.49	7.74	38.70	4.81	74.24	6.62	33.10	3.90	60.20	7.94	39.70
Tests above average	19		32		11		30		23		27		19		31	
Tests below average	31		18		29		20		27		23		31		19	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

PENNSYLVANIA.

EWES, 3 YEARS OLD.

Catalogue number of samples..	581.				588.				589.				[illegible]			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	4.25	7.125	5.50	6.00	2.25	5.125	3.875	7.00	3.25	10.25	2.75	9.00	3.25	9.00	1.25	4.00
	2.75	6.50	5.125	7.00	2.75	7.75	3.125	7.50	2.25	6.75	3.25	8.00	3.375	7.75	1.625	9.00
	3.375	7.00	5.625	8.00	2.75	7.00	3.25	4.25	2.75	9.00	5.75	8.50	3.00	8.25	2.00	5.00
	3.625	7.00	5.125	7.875	3.25	9.75	2.50	5.625	3.75	11.00	4.25	8.00	2.00	7.25	2.375	7.75
	4.50	8.25	4.00	7.25	3.00	7.25	2.75	6.25	2.75	10.00	2.50	4.00	4.75	8.00	1.00	3.00
	2.625	6.00	5.375	8.00	2.50	7.25	3.25	6.75	2.00	9.00	3.00	8.00	3.75	7.50	1.625	7.50
	4.75	4.75	4.375	5.75	3.50	7.50	3.50	7.00	3.00	4.00	3.00	8.75	3.00	9.25	1.75	6.75
	3.625	6.875	3.50	7.25	2.50	4.00	3.00	8.25	3.00	8.50	3.50	9.25	2.00	7.00	2.00	6.75
	3.00	8.00	3.75	8.00	3.50	8.25	3.625	6.75	3.25	7.25	3.00	7.00	3.625	6.75	2.375	6.25
	4.375	7.00	2.75	8.25	2.25	7.00	3.25	5.25	4.00	6.75	3.00	6.50	3.375	7.25	2.375	7.50
	4.25	8.25	2.50	7.625	1.50	4.00	3.00	4.50	2.75	8.25	3.25	7.00	2.625	7.75	2.625	8.00
	6.00	8.75	2.50	8.00	4.00	7.25	3.25	7.00	4.00	9.75	3.25	7.50	2.375	4.50	1.625	5.75
	4.625	7.00	5.125	9.00	2.25	3.00	4.875	7.25	2.00	7.00	3.75	6.00	2.00	6.25	1.75	8.75
	6.50	8.00	4.50	9.25	2.25	6.75	2.50	7.00	3.75	8.50	2.25	7.00	2.375	7.75	1.25	3.25
	4.75	5.00	4.375	8.25	3.75	7.50	3.625	7.00	3.00	8.00	4.00	6.75	1.625	3.25	2.625	7.00
	4.50	8.25	4.00	9.00	3.50	5.75	2.75	8.00	3.50	8.00	3.50	8.75	2.625	7.50	3.50	7.50
	4.875	8.00	4.875	9.25	3.375	6.75	3.00	6.75	2.75	9.00	2.75	8.00	2.00	4.50	3.25	8.00
	3.625	7.25	4.25	9.875	2.75	5.75	2.75	5.00	2.25	8.25	4.00	8.75	2.25	10.00	2.00	8.25
	3.625	8.50	2.25	5.00	3.25	8.75	3.75	8.00	3.25	7.25	3.25	10.00	2.625	7.00	1.75	6.25
	3.50	7.875	4.25	8.25	2.50	6.50	2.25	7.125	2.50	6.00	3.00	8.25	2.50	8.75	2.375	7.50
	4.625	7.125	5.125	6.75	3.00	6.75	3.00	4.00	2.50	8.25	3.00	8.75	1.625	6.75	2.75	8.50
	3.25	7.125	4.00	7.00	3.00	6.875	3.50	9.00	5.00	8.00	2.00	9.00	2.50	9.25	2.25	6.00
	4.00	7.00	4.50	8.25	3.50	7.75	3.375	7.75	5.00	8.00	3.00	4.25	2.50	9.50	1.625	6.00
	3.00	4.00	3.375	8.00	3.00	7.00	3.50	8.25	3.25	7.75	3.50	8.75	2.00	2.50	2.625	8.25
	5.50	7.00	3.50	8.125	3.50	8.125	2.25	8.00	2.50	8.25	2.25	2.75	2.375	7.25	1.625	8.25
Totals	103.50	177.625	104.25	195.00	73.625	169.375	79.00	171.00	79.00	202.75	80.75	188.50	66.125	171.25	52.00	171.75

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	6.50	100.32	9.875	49.375	4.875	75.24	9.75	48.75	5.75	88.748	11.00	55.00	4.75	73.313	10.00	50.00
Lowest	2.25	34.73	4.75	23.75	1.50	23.15	3.00	15.00	2.00	30.87	2.75	13.75	1.00	15.435	2.50	12.50
Average	4.16	64.21	7.45	37.25	3.05	47.08	6.81	34.05	3.20	49.39	7.83	39.15	2.36	36.425	6.86	34.30
Tests above average	27		25		25		31		24		32		27		25	
Tests below average	23		24		25		19		26		14		23		18	

PENNSYLVANIA.

EWES, 3 YEARS OLD.

Catalogue number of samples..	591.				592.				593.				[illegible]			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	4.50	7.00	3.50	9.00	2.50	10.00	3.00	9.00	1.625	7.125	1.75	5.75	2.375	5.50	2.375	5.50
	3.375	4.75	3.00	7.50	3.25	9.50	3.00	10.00	1.50	7.125	1.875	9.125	2.375	6.25	3.00	6.75
	4.00	8.00	3.75	7.75	3.25	6.50	3.00	7.00	2.375	8.00	3.375	10.00	1.625	4.50	2.625	8.25
	2.875	6.75	2.00	5.75	2.00	2.25	3.25	8.00	2.125	8.00	1.875	8.00	1.625	3.75	2.625	6.00
	4.375	9.125	3.125	8.00	2.75	5.00	3.25	10.00	1.75	8.75	1.50	5.00	1.75	3.00	1.75	7.25
	3.75	9.25	2.75	7.00	2.50	7.00	2.25	9.00	1.75	9.75	1.75	6.75	2.25	4.00	1.75	7.50
	3.75	7.00	4.625	9.25	2.75	5.25	4.50	8.50	1.75	6.00	2.75	9.00	2.50	7.00	3.375	7.00
	6.75	8.00	3.625	7.875	2.75	9.50	3.25	12.00	1.25	5.00	1.75	5.75	2.625	9.50	2.375	6.75
	4.375	8.00	3.75	6.125	3.00	8.00	3.50	10.25	2.75	7.75	2.375	7.50	2.625	7.75	3.00	9.25
	3.625	7.00	2.25	5.75	2.00	2.00	2.75	8.00	2.00	9.25	2.25	8.875	2.50	6.75	2.50	8.00
	2.625	8.00	2.375	8.00	3.25	6.00	2.75	7.00	2.00	7.00	2.00	7.50	2.00	2.50	2.625	6.25
	2.875	7.50	3.00	7.25	3.00	8.50	4.00	10.00	3.25	9.75	1.625	8.125	3.00	6.00	2.625	5.75
	2.25	5.75	3.50	7.75	3.25	8.75	3.00	9.00	2.25	7.875	2.50	10.00	3.375	7.25	3.375	6.75
	3.00	9.00	3.50	8.00	2.25	5.00	2.75	7.50	1.75	7.50	3.50	9.50	1.75	4.25	2.625	8.50
	4.00	8.00	2.875	7.25	2.50	8.00	3.50	9.50	2.625	9.25	2.375	8.25	2.00	5.25	2.375	9.25
	2.50	5.00	3.625	7.75	3.00	8.25	2.00	3.00	1.875	9.25	2.25	6.875	2.375	6.25	1.875	3.00
	3.00	6.25	3.375	8.25	2.00	5.00	4.00	8.50	2.75	8.125	1.75	7.875	1.00	6.50	2.25	9.00
	2.125	6.25	4.00	9.00	2.25	9.00	3.75	9.25	2.00	9.00	3.25	8.875	3.25	8.75	3.00	7.50
	4.50	7.00	3.375	5.25	2.25	7.00	1.75	3.50	1.625	8.00	2.125	9.00	2.625	7.50	3.375	8.50
	3.00	6.50	4.00	8.00	2.50	5.50	3.00	7.25	1.75	7.625	2.625	6.875	2.00	6.25	3.625	8.25
	3.00	6.00	2.75	6.00	3.50	8.25	3.50	10.00	1.625	7.00	3.25	9.00	1.00	7.00	1.00	2.00
	2.75	8.50	4.00	7.00	4.00	10.25	3.00	8.25	1.50	8.00	2.375	7.50	2.00	6.25	2.625	8.00
	3.125	8.50	3.50	8.125	2.50	7.00	3.00	10.00	1.50	7.00	2.25	8.50	2.50	6.50	1.75	4.50
	4.25	8.00	3.25	8.00	3.00	9.25	4.50	9.25	1.75	9.75	2.25	7.00	2.375	4.50	2.625	7.75
	4.00	8.00	2.375	3.00	2.50	8.00	2.75	7.00	2.125	9.00	2.25	8.25	2.375	7.50	3.25	7.25
Totals	89.375	183.125	81.875	182.625	68.50	178.75	79.00	210.75	49.25	200.875	51.625	198.875	58.125	153.25	638.75	174.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	6.75	104.18	9.25	46.25	4.50	69.455	12.00	60.00	3.50	54.02	13.00	65.00	3.625	55.95	9.50	47.50
Lowest	2.25	34.73	3.00	15.00	1.75	27.01	2.00	10.00	1.25	19.29	5.00	25.00	1.00	15.435	2.00	10.00
Average	3.43	52.94	7.32	36.60	2.95	45.38	7.79	38.95	2.14	33.03	7.99	39.95	2.44	37.66	6.55	32.77
Tests above average	25		28		28		31		21		28		23		28	
Tests below average	25		22		22		19		29		22		24		22	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

Catalogue number of samples..	PENNSYLVANIA.															
	EWES, 3 YEARS OLD.												RAMS, MISCELLANEOUS SAMPLES.			
	595.				596.				597.				564.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	3.50	9.50	2.75	6.75	1.125	4.25	2.00	4.00	1.00	3.00	3.25	8.25	8.00	9.50	3.50	4.00
	2.75	8.00	4.00	8.75	1.75	5.25	2.25	7.25	0.75	6.00	1.625	4.25	9.125	8.50	7.25	5.00
	4.25	11.00	4.00	9.00	1.375	4.00	2.50	7.75	1.25	4.75	1.375	3.75	11.50	9.00	10.25	8.00
	3.50	10.00	4.25	10.50	1.50	7.00	2.50	7.00	1.25	6.75	1.625	8.00	9.00	7.00	5.75	5.125
	2.25	9.25	3.25	9.50	2.50	7.00	3.50	9.00	1.50	8.00	2.625	8.50	8.25	7.00	3.25	4.75
	4.50	8.75	4.50	9.75	1.50	5.75	1.75	6.50	1.50	7.25	2.00	7.00	10.375	8.00	6.75	7.00
	4.00	9.00	4.75	10.00	2.625	7.75	1.875	6.00	2.25	8.75	1.00	6.00	4.50	8.25	6.00	7.00
	3.00	6.50	4.50	10.25	2.875	7.00	1.875	6.00	2.25	8.25	1.625	3.25	4.625	8.00	5.50	6.25
	3.00	8.75	3.00	9.50	2.00	6.875	1.625	4.00	1.75	9.50	1.625	7.75	4.625	6.875	4.75	4.125
	4.00	9.75	4.00	8.75	2.50	8.00	2.25	7.75	1.625	6.25	2.50	8.75	6.50	9.125	7.25	7.50
	4.25	10.00	3.50	9.25	1.50	6.00	2.50	8.00	2.375	7.50	1.625	1.75	7.50	8.50	4.50	6.875
	3.25	10.50	3.25	6.25	1.625	5.75	3.00	8.125	1.25	6.75	1.25	2.50	4.00	5.50	9.75	6.75
	3.00	9.75	4.00	8.25	1.75	4.875	2.50	8.00	1.625	5.50	2.00	7.00	6.75	8.00	5.25	5.00
	2.75	9.50	3.50	8.00	2.50	8.00	2.25	7.00	1.625	10.00	1.25	2.25	9.75	8.00	5.75	4.25
	3.50	9.50	4.25	10.00	2.375	6.50	3.00	9.00	1.75	4.00	3.375	7.75	8.00	8.50	5.75	7.25
	4.00	10.75	3.75	10.00	2.625	8.75	2.625	8.00	1.00	6.00	1.375	1.00	5.25	4.00	5.00	3.00
	3.50	8.50	4.00	10.00	3.00	9.00	2.50	7.875	1.375	9.25	3.625	7.75	9.75	5.75	9.75	7.125
	4.00	10.00	5.25	9.50	1.625	7.00	3.375	8.00	2.375	8.25	3.00	6.75	5.50	6.25	9.75	7.25
	4.00	10.00	3.00	6.75	1.875	5.00	1.75	4.75	1.625	5.75	3.00	6.25	8.00	6.75	3.50	6.75
	4.50	11.00	3.75	10.75	3.50	8.50	3.25	8.00	2.625	8.25	3.375	7.00	5.75	8.25	5.75	8.00
	4.50	9.75	3.75	8.00	1.125	4.00	2.50	6.125	1.50	4.00	2.375	3.75	7.50	6.50	6.125	6.00
	3.75	9.75	4.00	8.00	2.75	8.25	2.50	2.00	1.50	7.25	1.625	6.00	4.50	7.25	4.00	4.25
	3.50	10.00	3.00	9.50	1.75	4.00	2.625	6.00	2.375	6.00	2.00	5.50	5.00	6.00	4.875	7.875
	4.00	9.50	3.25	9.50	1.50	4.00	3.00	7.50	1.75	7.00	2.50	7.00	5.875	5.50	6.25	9.50
	3.00	9.00	3.50	6.00	2.50	7.75	2.125	5.50	2.00	8.50	1.375	6.50	5.25	8.00	5.75	8.875
Totals	90.25	238.00	94.75	221.00	52.75	160.25	61.625	169.125	41.875	172.50	83.00	144.25	175.375	184.00	152.00	159.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	5.25	81.031	11.00	55.00	3.50	54.02	9.00	45.00	3.625	55.95	10.00	50.00	11.50	177.50	9.50	47.50
Lowest	2.25	34.73	6.75	33.75	1.125	17.36	2.00	10.00	0.75	11.575	1.00	5.00	3.25	50.16	4.00	20.00
Average	3.70	57.108	9.18	45.90	2.29	35.35	6.59	32.95	1.89	29.17	6.33	31.65	6.50	101.10	6.87	34.35
Tests above average	27		32		26		28		20		28		20		29	
Tests below average	23		18		24		22		30		22		30		21	

Catalogue number of samples..	PENNSYLVANIA.															
	RAMS, MISCELLANEOUS SAMPLES.															
	[illegible]				572.				573.				579.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	5.50	6.50	3.00	7.00	4.25	7.75	10.00	7.00	6.00	6.75	4.75	5.25	10.25	9.00	4.375	3.50
	4.625	6.25	3.00	8.50	4.75	8.75	4.75	6.25	6.00	1.50	7.50	7.75	6.375	6.50	5.00	5.00
	4.625	7.25	3.50	4.875	5.00	9.50	4.00	7.00	4.50	6.50	4.50	5.25	5.62	6.25	4.75	9.75
	3.00	5.25	2.75	5.25	4.00	3.00	6.75	9.00	12.25	8.00	5.00	5.75	3.00	4.75	3.50	5.75
	4.375	6.00	2.875	6.875	4.25	7.75	6.00	8.00	12.25	3.00	5.75	6.75	5.50	7.00	5.375	5.00
	3.375	6.00	4.00	7.00	5.25	8.50	3.25	6.00	10.00	3.50	9.50	8.75	9.625	6.00	6.50	8.00
	5.25	[illegible]	3.25	6.875	4.75	8.50	4.75	7.75	18.75	9.00	8.00	6.50	8.375	8.75	2.50	6.75
	4.00	5.00	3.50	5.00	4.00	4.75	7.00	8.00	10.00	6.00	6.00	7.00	4.00	4.00	4.625	5.00
	2.625	5.25	4.25	4.25	4.00	5.50	10.00	10.00	4.25	3.75	10.25	8.00	4.50	5.75	6.625	7.00
	2.375	6.00	3.875	6.00	9.50	7.75	4.25	8.00	6.00	1.00	4.50	7.00	4.00	4.75	3.625	7.00
	3.00	6.00	3.375	3.125	8.00	8.50	3.25	7.00	19.25	9.50	4.75	7.25	2.625	2.00	2.75	1.00
	4.00	7.25	2.625	7.00	4.00	6.00	6.75	9.75	3.50	4.25	11.25	7.00	3.625	5.75	4.50	6.25
	4.875	7.00	4.625	6.00	4.00	8.25	5.75	10.00	7.50	7.00	9.25	6.00	6.375	4.75	6.375	6.00
	3.00	6.00	3.00	3.00	4.75	8.75	4.00	4.00	9.00	7.50	10.50	9.75	4.75	7.50	3.625	6.25
	3.25	7.00	3.875	5.125	6.00	2.50	4.50	5.75	12.25	8.25	6.00	8.25	4.50	7.50	6.25	7.75
	3.625	6.00	3.875	6.50	4.00	5.25	7.75	7.50	9.75	7.25	4.50	6.25	3.625	2.75	3.75	2.50
	3.635	6.50	4.00	5.00	8.25	8.75	4.50	3.00	4.75	5.00	4.00	8.00	2.625	1.75	3.50	1.00
	6.25	7.25	3.625	5.75	4.25	7.00	9.25	9.25	8.00	7.00	4.00	6.00	5.75	7.00	3.375	5.00
	2.75	3.75	4.75	7.75	4.00	7.25	4.75	8.00	5.00	7.00	3.75	7.00	4.375	4.00	5.375	9.00
	2.625	4.00	2.50	7.00	5.00	9.75	4.00	8.75	4.00	6.50	8.50	4.00	4.625	4.25	7.50	6.75
	4.625	7.00	2.00	3.00	3.25	6.00	5.00	8.50	5.00	8.50	5.00	1.50	4.75	6.75	4.625	6.75
	2.50	5.50	2.25	4.25	4.25	8.75	8.75	9.50	6.75	8.75	5.75	4.75	3.375	3.75	5.25	6.50
	4.50	8.00	3.50	6.25	5.00	7.75	5.25	6.25	4.50	7.00	8.00	3.00	7.75	6.25	3.625	5.50
	3.50	0.00	8.875	6.00	4.75	8.25	5.25	10.00	5.00	5.75	12.25	6.00	6.75	6.00	3.375	7.00
	2.75	5.25	4.00	7.00	5.75	7.00	4.75	9.00	5.00	5.25	3.75	5.25	6.625	6.25	2.625	2.75
Totals	94.625	154.00	85.875	144.375	125.00	181.50	144.25	193.75	199.25	153.50	167.00	158.00	133.375	139.00	114.375	142.75

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	6.25	96.47	8.50	42.50	10.00	154.35	10.00	50.00	19.25	297.12	9.75	48.75	10.25	158.20	9.00	45.00
Lowest	2.00	30.87	3.00	15.00	3.25	50.16	2.50	12.50	3.50	54.02	1.00	5.00	2.625	40.52	1.00	5.00
Average	3.61	55.72	5.97	29.85	5.39	83.19	7.51	37.55	7.33	113.14	6.23	31.15	4.96	76.56	5.64	28.20
Tests above average	24		32		15		30		21		29		20		30	
Tests below average	26		18		35		20		29		21		[illegible]		20	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

PENNSYLVANIA.

EWES, MISCELLANEOUS SAMPLES.

Catalogue number of samples..	565.				566.				567.				[illegible]			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	10.50	8.00	9.375	8.25	4.75	5.00	3.00	2.75	4.50	6.00	4.375	5.75	4.75	4.00	6.50	6.75
	7.375	7.75	5.25	6.75	9.00	5.75	4.00	4.25	4.00	7.50	6.125	8.50	11.00	8.00	6.25	4.75
	4.50	5.00	2.625	2.00	2.75	1.75	5.25	2.00	3.125	6.50	7.00	7.00	5.75	4.25	3.75	2.00
	2.625	7.25	0.50	7.00	3.00	4.00	4.00	5.75	3.75	7.25	4.875	7.00	11.25	6.00	4.50	4.00
	3.625	4.00	5.625	5.75	6.25	9.00	4.00	2.50	3.50	7.00	5.375	7.25	6.00	8.00	5.75	6.00
	4.50	8.75	7.25	2.75	3.50	5.00	6.50	6.25	2.50	6.125	7.125	5.25	9.25	8.25	6.00	8.00
	2.50	3.00	9.625	6.25	4.25	2.50	3.25	3.00	3.375	4.00	5.125	7.00	7.00	8.00	6.00	5.00
	3.75	8.50	6.25	6.50	4.00	7.00	6.00	4.25	3.50	5.00	4.00	8.00	4.75	4.25	5.75	7.00
	3.625	6.75	5.375	8.50	5.00	7.00	5.00	2.75	5.50	7.625	8.125	6.50	9.00	4.50	5.00	4.00
	7.625	8.00	8.00	8.00	4.25	8.00	7.50	9.00	6.625	7.00	4.00	5.00	3.75	6.00	6.25	9.00
	8.625	7.75	12.50	8.00	3.75	9.50	5.50	8.00	4.625	6.00	6.75	7.00	5.00	5.00	5.25	7.00
	5.375	6.00	6.00	7.00	3.75	9.00	3.00	2.50	6.25	5.25	3.375	7.125	5.75	7.50	5.00	5.75
	10.50	7.75	5.625	7.00	6.00	6.00	7.25	7.25	2.50	7.375	6.50	6.00	4.75	4.75	6.00	7.00
	7.375	8.00	2.625	2.00	9.50	8.50	4.50	4.75	3.875	6.00	7.00	8.00	7.00	3.00	9.75	7.25
	6.00	8.75	6.375	7.00	3.75	6.00	4.25	3.00	6.50	5.375	4.375	8.00	6.00	7.00	4.50	4.75
	5.00	6.25	6.25	8.00	6.25	8.25	3.00	3.00	2.50	4.50	3.75	4.75	5.63	6.50	4.75	9.00
	8.00	7.75	4.00	7.75	5.25	2.00	6.50	9.75	2.50	4.625	3.25	6.50	6.25	6.00	4.75	8.75
	5.50	4.75	10.50	7.75	4.00	5.25	4.50	8.75	4.625	7.25	4.00	8.00	8.50	6.00	5.00	8.75
	7.50	9.00	7.50	8.75	3.75	6.00	7.25	9.00	3.75	6.00	4.00	6.50	6.25	5.00	6.50	8.25
	4.00	9.00	6.75	5.00	4.50	3.25	7.75	10.00	5.50	6.50	2.50	6.00	5.75	5.75	9.75	7.50
	8.625	7.25	4.50	8.25	4.50	5.00	3.00	3.00	4.75	5.00	7.50	7.25	7.25	6.00	8.00	8.50
	7.00	7.25	4.375	7.75	4.00	5.00	3.00	1.00	9.50	8.00	3.75	7.00	3.50	6.50	6.00	8.00
	9.50	7.75	5.00	7.75	4.50	8.75	6.00	9.00	3.00	5.00	2.625	6.00	6.25	5.00	6.00	4.25
	4.625	8.00	10.625	7.00	3.00	2.00	6.00	7.00	4.625	6.00	3.50	8.25	6.25	7.00	5.50	4.00
	6.375	6.75	8.25	7.00	4.25	3.00	5.00	5.50	3.25	5.25	3.875	4.75	5.75	2.25	10.25	5.50
Totals	154.625	182.50	166.50	166.25	121.25	144.00	128.50	140.75	111.125	156.625	122.75	159.625	171.25	146.50	152.75	157.75

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	12.25	189.07	8.00	45.00	9.50	146.63	10.00	50.00	9.50	146.63	8.50	42.50	13.50	208.37	9.00	45.00
Lowest	2.50	38.50	2.00	14.00	2.75	42.45	1.00	5.00	2.50	38.50	4.00	20.00	3.50	54.02	2.00	10.00
Average	6.46	99.71	7.015	35.025	5.75	88.75	5.70	28.50	4.68	72.28	6.33	31.625	6.48	100.02	6.25	31.25
Tests above average	22		29		18		26		19		25		14		23	
Tests below average	28		21		32		24		31		25		36		27	

PENNSYLVANIA.

EWES, MISCELLANEOUS SAMPLES.

WISCONSIN.

RAMS, YEARLING.

Catalogue number of samples..	571.				736.				737.				738.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	3.25	6.25	2.00	4.25	6.25	7.00	6.00	8.00	5.75	7.875	4.50	6.75	3.00	3.00	2.125	3.75
	5.375	2.00	2.625	6.25	6.25	7.75	6.00	9.00	3.75	7.50	3.00	5.00	3.00	3.125	5.00	7.125
	3.00	4.75	2.625	3.75	6.50	5.00	4.00	7.75	5.50	3.875	3.625	7.75	3.25	4.875	5.50	5.75
	3.50	3.25	2.625	5.75	5.00	5.50	6.00	5.00	4.75	6.25	3.75	7.75	1.875	3.375	3.25	6.125
	2.625	4.25	2.00	7.00	6.25	8.00	6.00	8.00	7.75	5.00	2.00	8.75	1.25	3.00	3.00	7.00
	4.75	6.25	3.375	7.75	6.25	2.00	4.25	8.00	4.75	9.00	2.25	6.50	2.00	2.125	2.00	4.00
	3.375	8.25	1.625	1.75	5.00	6.00	5.75	2.00	5.00	5.75	5.75	8.75	4.00	5.00	4.00	8.00
	2.625	4.25	6.00	7.75	9.50	5.00	5.25	5.00	2.875	4.25	2.625	6.75	4.00	4.00	2.75	8.25
	3.625	6.50	2.00	4.00	7.00	6.75	5.00	5.00	3.75	5.00	3.25	8.50	3.00	1.75	2.25	6.00
	5.75	7.25	3.625	5.75	6.75	8.25	5.50	8.00	4.00	7.25	2.625	5.25	4.25	4.00	3.00	8.375
	2.625	7.50	2.25	9.00	7.25	6.00	5.50	3.50	3.50	7.25	5.50	9.75	2.625	3.375	2.75	5.125
	2.00	5.00	2.375	2.75	4.25	5.00	4.00	5.00	4.25	8.50	3.375	10.00	1.625	4.75	3.50	8.00
	4.375	6.25	2.00	3.25	4.25	5.25	6.25	8.00	5.50	10.375	5.50	8.00	4.50	4.25	4.25	8.00
	2.625	2.00	3.75	4.25	5.50	7.75	3.00	3.00	3.50	6.00	4.50	9.00	4.50	4.75	1.25	4.00
	2.375	5.75	3.00	6.00	6.25	8.00	5.25	8.00	4.00	5.00	2.00	7.00	4.375	4.50	2.50	6.125
	2.75	8.25	2.625	3.75	5.75	7.75	6.00	8.00	4.00	8.25	3.375	9.00	2.75	3.50	2.25	8.00
	4.00	7.75	8.00	5.75	6.50	15.00	5.75	8.00	2.875	4.25	5.00	2.50	3.50	5.00	2.50	7.75
	2.00	8.25	3.375	0.25	8.00	7.00	6.50	8.00	6.625	5.50	3.00	8.50	5.50	7.00	2.00	6.00
	2.00	8.25	0.25	7.50	3.75	7.00	5.00	8.00	3.25	6.25	4.375	8.75	4.50	4.00	2.375	4.875
	3.375	3.50	2.00	7.75	5.00	3.50	5.00	9.00	4.75	5.625	3.625	6.50	5.125	4.375	3.50	5.25
	2.625	8.00	3.50	8.00	5.75	7.00	4.00	3.75	3.00	7.625	4.00	8.00	4.50	5.25	3.375	6.00
	2.00	2.00	2.625	4.75	7.00	8.00	5.00	5.00	9.00	9.00	3.00	7.25	3.25	5.00	2.25	7.00
	2.25	7.75	1.625	3.75	5.25	2.00	5.00	5.75	4.75	6.50	3.00	5.50	3.75	5.00	2.75	7.00
	3.25	8.50	4.625	5.00	5.00	4.00	4.00	3.50	7.00	8.50	4.375	8.75	3.25	7.00	2.25	6.00
	2.625	8.00	3.625	6.25	9.75	8.75	7.50	4.00	4.375	7.00	3.625	9.50	2.25	6.00	4.75	7.00
Totals	78.75	146.50	74.125	135.00	153.00	164.25	131.50	171.75	105.75	167.875	92.625	196.75	85.625	115.00	75.75	159.375

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	6.25	96.466	8.50	45.50	9.75	150.49	10.00	50.00	9.00	138.91	10.375	51.875	5.50	84.80	8.25	41.25
Lowest	1.625	25.08	1.75	8.75	3.00	46.20	2.00	10.00	2.00	30.87	3.375	16.875	1.25	19.29	1.75	8.75
Average	3.06	47.25	5.63	28.15	5.69	87.82	6.72	33.60	3.968	61.24	7.206	36.465	3.21	49.52	5.506	27.44
Tests above average	19		20		27		32		25		25		25		25	
Tests below average	31		21		23		18		25		25		25		25	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

WISCONSIN.

RAMS, YEARLING.

Catalogue number of samples..	747.				748.				749.				750.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	3.00	2.75	3.00	2.00	5.50	5.00	8.75	8.00	6.00	4.75	5.50	5.25	3.75	6.25	5.00	4.00
	3.00	3.00	3.00	3.00	3.25	3.00	9.50	8.75	6.75	9.00	3.75	2.50	3.00	4.00	6.00	7.75
	3.00	3.00	3.25	6.00	3.625	6.75	3.625	2.75	4.00	6.00	4.00	8.00	4.00	6.00	2.00	2.75
	4.75	6.75	4.00	7.50	6.50	6.25	4.00	6.00	5.00	6.25	6.25	7.75	2.75	3.75	5.25	7.00
	2.75	3.00	3.50	4.00	2.875	3.75	6.875	9.25	6.50	9.50	4.25	7.50	3.00	4.75	2.75	5.75
	2.50	4.00	3.00	2.25	3.50	3.125	3.625	5.625	4.25	8.25	5.75	8.75	2.75	5.00	3.00	4.00
	3.75	4.50	3.25	3.50	3.25	2.00	4.25	5.75	4.00	7.25	3.75	4.50	3.00	7.00	4.00	7.25
	4.00	7.00	3.00	3.00	2.50	4.00	4.625	7.25	4.00	7.00	6.00	3.75	3.25	6.00	3.75	6.50
	3.50	7.00	2.75	2.75	4.625	4.00	4.50	4.25	6.50	8.50	4.25	7.25	3.00	4.00	6.25	7.00
	6.00	3.00	4.00	2.50	3.75	5.25	6.50	8.125	6.50	7.00	5.75	5.25	3.00	4.00	3.75	5.00
	2.00	2.75	2.00	2.75	3.625	3.875	7.50	6.50	6.25	8.00	6.25	5.00	3.25	6.75	3.00	5.00
	4.00	6.25	3.50	5.00	4.50	2.00	7.50	7.00	6.50	8.00	6.50	8.00	5.00	3.50	2.50	6.00
	3.75	3.00	3.00	5.00	3.50	2.75	3.50	3.00	7.50	8.25	5.25	3.00	2.75	2.50	4.75	5.25
	4.25	9.00	3.25	6.25	2.50	3.50	6.625	7.875	4.00	4.00	5.50	7.25	6.00	8.50	3.50	6.25
	3.00	3.00	3.00	5.00	2.375	4.50	8.50	8.375	5.50	3.25	3.00	3.00	3.75	4.00	2.75	4.75
	4.00	4.00	2.75	3.00	2.50	2.875	6.125	6.625	4.00	2.50	6.25	8.00	3.00	6.25	2.75	5.25
	3.50	4.00	4.75	6.25	3.75	3.00	5.75	7.00	6.50	6.75	5.00	7.25	3.00	6.00	3.25	3.50
	3.25	4.25	2.25	2.50	2.75	3.25	9.00	8.50	5.50	8.50	3.00	3.00	4.75	6.00	3.00	4.25
	4.50	6.25	3.25	3.75	3.25	3.25	4.50	7.50	6.00	7.00	6.00	6.50	7.75	5.50	3.75	2.75
	3.50	5.00	3.25	3.50	3.00	3.625	5.75	8.875	5.50	3.50	5.75	6.00	3.75	3.75	3.50	6.00
	2.75	2.25	2.75	2.50	4.25	8.25	5.00	6.75	5.50	7.50	6.75	7.00	4.00	4.50	5.00	5.25
	4.00	4.75	2.50	2.00	2.00	3.00	4.00	7.125	6.50	6.75	6.00	6.50	2.50	4.00	2.75	5.00
	3.25	2.75	2.00	4.25	2.00	3.00	6.25	8.00	4.00	7.75	7.75	6.00	3.25	3.00	4.00	2.50
	3.25	2.75	2.50	3.00	2.75	3.00	7.50	8.00	5.75	7.50	4.00	5.25	3.75	5.75	3.25	2.50
	3.75	3.75	3.50	6.00	2.00	2.875	2.75	2.00	5.00	6.50	3.00	4.00	3.00	4.00	3.00	5.00
Totals	88.50	107.75	77.00	97.25	82.125	94.875	146.50	168.875	137.50	169.25	129.25	149.00	91.00	124.75	92.50	126.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	6.00	92.61	9.00	45.00	9.50	146.63	9.25	46.25	7.75	119.62	9.50	47.50	7.75	119.62	8.50	42.50
Lowest	2.00	30.87	2.00	10.00	2.00	30.87	2.00	10.00	3.00	46.30	2.50	12.50	2.00	30.87	2.50	12.50
Average	3.31	51.09	4.10	20.50	4.573	70.58	5.275	26.375	5.335	82.34	6.365	31.825	3.67	56.65	5.02	25.10
Tests above average	20		19		17		24		30		31		21		28	
Tests below average	30		31		33		26		20		19		29		27	

WISCONSIN.

Catalogue number of samples..	RAMS, YEARLING. 751.				RAMS, 2 YEARS OLD. 724.				728.				729.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	3.50	3.00	4.00	9.00	7.375	6.75	6.00	7.00	4.75	5.75	7.00	8.25	3.25	4.875	5.00	7.00
	2.375	2.25	3.25	2.875	3.00	2.00	3.25	3.875	5.50	8.25	5.50	9.00	13.00	7.125	4.50	5.00
	4.50	2.00	5.00	7.00	4.625	5.75	3.75	2.125	6.00	5.00	4.25	4.00	5.50	7.125	9.125	7.00
	5.375	7.00	3.625	7.00	3.75	6.50	4.25	4.00	5.75	7.00	6.25	8.75	6.875	6.25	4.625	7.00
	3.25	6.00	4.25	8.00	5.00	7.75	4.375	5.125	5.75	7.25	4.75	7.60	6.25	8.00	7.00	6.25
	4.00	4.00	3.00	5.375	4.50	4.00	3.00	3.25	5.00	8.00	6.00	7.25	5.625	7.00	5.50	5.125
	5.875	4.00	3.75	5.125	4.25	7.00	2.875	4.00	7.00	9.75	4.75	8.25	4.375	4.25	6.00	5.75
	8.00	3.50	4.50	4.125	3.25	1.25	4.625	6.25	5.50	8.00	7.75	9.75	4.375	8.25	5.625	7.00
	4.375	4.125	3.50	4.25	5.625	6.00	4.00	4.875	5.00	7.75	6.00	9.25	4.125	5.00	4.875	8.25
	2.75	4.00	2.25	4.50	3.50	3.00	4.50	5.125	4.00	9.75	4.25	5.25	4.75	5.50	5.25	8.00
	4.25	2.50	5.00	7.25	3.00	3.00	5.25	4.00	5.00	8.50	5.00	6.75	7.50	7.50	5.25	7.25
	3.625	4.00	3.875	3.00	2.625	2.00	3.25	4.00	5.50	8.50	6.00	9.75	6.50	6.00	3.75	5.00
	1.875	2.375	3.25	2.00	5.25	6.375	3.25	3.125	5.50	8.50	3.75	4.50	7.50	6.75	3.625	6.625
	3.50	4.875	2.50	2.25	3.75	8.00	3.625	4.50	4.50	8.75	5.00	8.25	6.75	7.125	4.75	7.25
	3.375	3.875	4.25	4.00	3.25	5.00	3.25	3.00	3.50	5.25	4.50	9.25	5.00	6.75	6.25	7.25
	2.25	3.00	7.50	7.125	2.875	5.00	3.75	6.00	4.00	10.00	4.00	4.00	5.625	6.50	4.50	9.00
	3.375	3.125	2.75	6.875	3.00	3.00	3.25	3.00	5.25	8.25	6.50	8.25	8.25	8.00	6.25	7.00
	5.25	2.00	3.875	5.25	3.50	4.00	4.875	7.50	5.50	10.25	4.50	8.50	3.25	5.00	3.75	6.125
	2.375	5.00	3.50	4.25	2.75	6.00	3.375	7.00	4.50	5.25	6.75	7.75	2.75	5.75	5.50	6.00
	4.75	3.875	7.00	7.875	5.25	5.125	5.50	6.00	4.25	7.50	4.00	6.25	4.625	4.00	4.25	5.125
	7.00	4.125	5.375	5.00	4.625	7.00	3.75	5.00	5.00	8.50	6.00	9.00	4.875	4.00	8.75	8.50
	2.25	4.75	4.25	5.75	3.25	5.00	3.00	3.875	4.50	4.75	5.25	7.75	4.50	6.50	6.375	6.50
	3.00	8.25	6.50	6.875	4.25	4.00	4.00	4.50	3.50	1.50	5.00	6.50	5.50	7.00	3.50	6.75
	3.00	3.50	2.25	5.00	3.25	6.875	5.00	3.75	5.75	9.75	4.50	3.75	6.125	8.00	4.375	6.25
	3.00	3.00	4.50	3.25	3.75	3.00	3.00	2.75	5.75	6.50	6.00	9.00	5.25	7.25	4.125	6.125
Totals	96.375	98.125	105.50	133.00	97.125	123.375	98.75	113.625	125.50	188.25	133.25	186.00	142.125	159.50	132.50	167.125

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	8.00	123.48	9.00	45.00	6.00	92.61	8.00	40.00	7.75	119.62	10.25	51.25	13.00	200.65	9.00	45.00
Lowest	1.875	28.96	2.00	10.00	2.875	44.38	1.25	6.25	3.50	54.021	1.50	7.50	2.75	42.45	4.00	20.00
Average	4.038	62.33	4.623	23.15	3.918	60.47	4.74	23.70	5.18	79.951	7.49	37.45	5.49	84.74	6.53	32.65
Tests above average	21		21		21		24		24		31		23		27	
Tests below average	29		29		29		26		26		19		27		23	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

WISCONSIN.

RAMS, 2 YEARS OLD.

Catalogue number of samples.	733.				734.				735.				739.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	5.25	5.75	2.625	2.75	4.25	7.125	5.25	8.00	5.50	6.50	4.25	7.00	5.25	7.75	6.75	9.25
	4.00	2.75	4.375	10.00	13.125	9.00	8.00	7.50	5.625	8.125	4.50	4.50	4.00	4.75	7.00	10.00
	4.25	5.75	3.00	8.25	5.00	7.50	4.00	5.50	4.875	6.00	4.375	6.125	3.00	4.00	5.25	5.50
	1.00	0.75	2.625	6.00	4.00	6.00	6.25	8.00	4.625	9.00	8.00	6.75	8.75	7.50	4.00	3.50
	6.50	4.75	3.00	6.75	5.375	7.00	4.25	7.50	4.75	6.50	5.625	7.00	4.00	5.25	6.50	7.25
	3.625	2.00	4.625	7.25	6.00	8.00	7.25	6.875	6.00	2.00	3.375	2.50	10.75	8.50	5.00	7.75
	4.375	2.00	6.25	7.00	7.25	8.75	8.75	9.00	3.375	2.125	3.75	6.875	5.00	3.00	5.50	7.25
	6.625	7.00	3.375	2.50	6.25	6.00	6.25	7.00	5.375	6.00	6.375	8.50	5.25	3.50	5.00	8.25
	3.375	3.75	1.375	1.00	6.25	5.875	4.50	7.75	2.625	3.00	4.75	6.25	6.50	7.75	5.75	8.50
	5.625	3.25	3.625	5.00	10.25	8.875	5.25	5.25	5.00	7.875	5.75	6.875	4.50	4.25	6.00	6.25
	2.75	3.25	2.75	6.75	4.00	8.00	5.50	7.50	4.375	3.00	4.50	5.00	4.00	8.50	4.25	6.75
	3.375	2.00	5.00	7.00	9.25	8.25	6.00	7.50	6.00	7.875	7.625	6.25	4.00	6.25	4.75	4.75
	2.625	2.50	4.75	7.75	10.00	9.00	4.75	7.50	2.75	1.875	8.375	8.125	5.25	7.75	4.00	8.50
	4.25	3.00	2.25	4.25	6.25	6.875	5.75	5.75	5.50	6.25	5.50	6.75	3.50	5.50	6.75	8.00
	4.375	6.00	4.375	5.25	7.00	9.50	4.25	6.75	7.25	8.50	7.75	8.875	6.00	8.00	3.75	7.75
	2.75	6.75	4.50	7.00	3.25	6.25	3.50	9.00	9.375	7.00	3.75	4.00	4.00	9.50	5.50	7.75
	5.00	8.00	3.625	5.25	5.00	7.00	11.00	7.50	3.00	7.00	2.75	1.50	4.00	5.25	3.50	9.00
	4.00	3.00	6.50	7.75	4.00	6.875	5.875	6.75	6.375	8.875	6.625	7.125	5.50	9.75	8.00	9.00
	3.375	5.50	3.625	8.25	5.50	7.75	4.00	5.75	5.00	8.25	8.875	6.75	5.00	7.25	8.00	8.50
	3.625	7.00	3.625	7.00	4.25	9.25	7.25	7.75	5.00	7.50	3.625	6.125	5.75	8.75	7.00	6.50
	3.00	6.50	5.375	8.00	6.625	10.50	5.75	7.00	5.00	6.00	4.75	5.00	4.00	6.50	5.00	8.75
	5.50	6.75	3.50	3.50	5.00	9.00	4.00	7.875	4.625	2.125	7.375	7.75	5.75	4.00	6.00	8.00
	4.00	1.00	4.50	6.00	2.25	6.875	6.25	9.25	4.75	5.875	8.00	7.50	5.00	8.75	4.75	5.00
	6.00	8.00	3.75	3.25	7.25	8.875	4.50	7.75	3.625	3.00	3.625	8.25	6.25	8.25	8.00	6.50
	6.375	6.00	3.625	4.00	4.50	7.50	4.25	8.00	7.00	7.25	4.625	8.00	7.25	8.50	7.50	7.50
Totals	106.625	113.00	76.625	150.50	152.875	194.625	142.375	181.00	124.875	147.50	135.50	161.875	122.25	168.75	140.50	180.25

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	6.625	102.25	10.00	50.00	13.125	202.58	10.50	52.50	9.375	144.76	9.00	45.00	10.75	165.92	10.00	50.00
Lowest	1.00	15.435	0.75	3.75	2.25	34.73	5.25	26.25	2.75	42.445	1.875	9.375	2.60	40.304	3.00	15.00
Average	4.07	61.84	5.27	26.35	5.91	91.22	7.57	37.55	5.208	80.383	6.188	30.94	5.46	84.27	7.10	35.50
Tests above average	22		28		21		22		19		14		22		31	
Tests below average	14		22		29		28		31		17		28		13	

WISCONSIN.

RAMS, 2 YEARS OLD.

Catalogue number of samples.	752.				753.				754.				755.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	5.00	8.25	4.75	8.00	8.75	10.00	4.75	9.00	4.00	10.50	5.00	10.00	4.00	10.00	8.00	7.00
	4.75	5.50	3.50	8.00	4.50	7.25	3.50	5.00	4.25	10.75	4.25	7.75	4.375	3.00	7.50	8.00
	9.50	10.00	4.00	8.50	4.75	9.50	8.00	8.50	4.50	9.75	6.125	9.00	8.50	10.00	3.625	7.00
	7.75	8.00	4.00	9.00	5.25	8.75	5.00	10.75	4.00	10.125	5.00	7.75	8.875	9.00	5.50	7.25
	3.25	7.00	3.50	8.25	7.00	11.75	4.75	7.00	4.875	9.75	5.00	10.00	4.00	8.125	4.50	8.00
	8.00	9.00	4.50	8.75	6.00	9.50	4.00	6.25	5.00	8.75	3.375	8.00	4.25	7.25	2.625	6.125
	5.00	9.00	3.25	7.25	4.75	7.00	4.75	9.00	3.75	8.00	3.00	8.00	3.625	7.75	2.75	5.875
	5.00	8.75	3.50	8.50	4.25	8.25	5.00	7.75	4.50	10.75	4.50	9.875	4.875	7.00	3.00	7.00
	4.00	8.75	4.75	9.75	5.00	8.00	6.50	9.00	4.25	8.125	4.50	9.00	4.25	6.875	5.00	7.50
	4.25	7.00	4.00	8.75	3.75	9.00	5.00	8.75	4.50	11.50	5.50	8.125	4.50	8.125	5.25	7.00
	4.00	7.00	4.50	9.75	4.25	8.75	4.00	11.00	3.50	9.00	2.50	7.125	7.75	9.50	8.125	7.00
	4.75	9.75	5.50	10.00	9.00	9.25	4.25	6.75	4.50	8.75	3.75	6.875	4.625	8.75	3.625	10.00
	5.00	9.00	5.00	8.75	6.00	8.75	5.00	9.50	2.75	9.50	3.75	8.00	4.875	9.125	5.00	9.125
	4.75	7.50	3.00	8.00	8.00	8.00	5.00	9.25	3.50	8.25	3.875	7.00	6.50	9.00	5.75	8.25
	9.00	9.25	4.75	9.75	9.25	8.75	4.00	8.75	3.50	7.00	4.00	8.875	4.375	9.25	6.625	8.00
	4.50	8.50	8.00	9.50	4.00	6.00	5.00	7.00	4.00	8.00	3.25	8.00	4.25	6.125	2.75	7.50
	7.50	9.75	5.00	9.50	4.50	9.25	5.00	7.75	5.00	10.75	2.25	6.50	6.50	7.25	1.875	7.00
	7.50	10.25	4.25	8.75	4.25	9.00	5.00	9.00	4.50	9.00	3.50	8.125	2.75	6.00	2.375	8.25
	4.50	9.25	4.00	8.50	6.25	8.25	8.00	10.00	4.50	9.50	4.625	7.75	4.25	7.125	2.50	7.875
	5.00	6.75	5.00	9.75	5.00	8.50	4.00	9.00	3.50	10.00	3.625	8.00	4.375	6.75	3.00	7.00
	4.00	9.00	4.00	9.75	6.00	7.75	3.50	6.50	2.50	9.00	2.50	8.00	5.875	8.125	3.375	7.50
	6.00	8.25	5.50	9.25	4.00	6.75	9.75	10.25	4.00	7.875	2.25	4.50	5.00	6.875	6.25	7.25
	6.25	9.25	4.50	10.00	4.25	4.25	4.75	9.25	5.75	10.25	3.50	7.50	2.00	8.00	3.25	8.875
	9.75	9.00	9.00	10.00	7.25	9.00	6.00	9.00	5.375	8.75	2.375	7.50	4.50	7.50	4.625	8.50
	4.75	8.50	4.00	8.75	3.50	7.00	4.00	7.75	3.625	10.25	2.625	8.00	2.75	8.875	2.625	7.00
Totals	143.75	212.25	118.75	225.25	139.50	206.25	128.50	209.75	102.125	232.875	94.625	197.25	121.625	192.375	102.50	188.875

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	9.75	150.49	10.25	51.25	9.75	150.49	11.75	58.75	6.125	94.54	11.50	57.50	8.50	131.19	10.00	50.00
Lowest	3.00	46.30	5.50	27.50	3.50	54.02	4.25	21.25	2.25	34.73	3.00	30.00	1.875	28.94	3.00	15.00
Average	5.25	81.03	8.73	43.75	5.36	82.73	8.39	41.50	3.935	60.25	8.603	43.015	4.483	69.19	7.625	38.125
Tests above average	13		24		18		28		26		25		22		23	
Tests below average	37		19		34		22		24		23		28		27	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

WISCONSIN.

RAMS, 2 YEARS OLD.

Catalogue number of samples..	756.				757.				758.				759.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	3.00	3.50	2.50	8.25	3.00	7.125	5.25	7.50	4.625	9.00	7.75	7.25	4.00	7.25	6.50	7.00
	4.00	8.00	4.00	7.75	5.875	6.25	5.50	7.25	6.625	8.25	9.50	6.25	15.50	7.75	6.50	6.50
	3.50	7.00	3.00	7.50	5.50	6.00	4.25	7.25	4.625	8.00	5 50	8.25	7.00	7.50	7.25	5.25
	3.00	8.50	2.75	4.00	8.75	10.50	7.625	8.00	5.375	7.25	4.375	5.50	6.50	7.50	6.50	4.75
	3.00	9.00	3.25	8.00	7.50	6.25	4.50	6.00	3.375	6.50	4.375	6.50	5.50	7.00	3.75	4.00
	5.00	9.00	5.00	10.75	4.75	8.125	5.75	4.00	6.375	7.75	3.375	5.75	8.75	8.00	10.25	7.25
	3.75	8.00	3.00	8.50	4.75	7.00	5.25	7.00	3.375	6.75	5.50	7.00	8.25	7.00	6.25	5.00
	3.00	3.00	3.50	8.75	4.00	7.50	5.00	7.00	3.625	6.00	6.00	2.25	3.00	4.75	6.00	7.00
	4.75	9.75	3.00	9.75	5.375	8.875	4.875	7.75	4.75	5.25	6.75	11.50	9.25	8.25	5.50	6.50
	6.00	9.00	4.25	9.00	7.00	8.00	4.00	6.00	3.375	8.00	4.25	8.75	6.625	7.50	7.25	5.00
	3.75	10.00	3.25	8.25	3.75	3.00	5.00	6.25	5.625	5.75	5.25	8.25	6.75	8.75	7.00	7.25
	5.50	9.00	4.00	7.00	4.75	9.00	3.25	7.125	8.625	7.50	4.625	10.25	7.00	8.00	10.00	8.00
	3.75	5.75	4.00	9.50	2.50	4.25	4.50	6.00	6.00	4.75	3.375	5.00	5.00	9.00	7.00	6.00
	5.75	8.25	3.75	8.25	3.25	5.75	5.125	6.00	3.00	5.25	4.375	8.25	4.25	4.00	5.50	5.00
	4.25	7.00	3.00	7.50	5.25	7.50	4.00	6.50	6.00	4.25	9.00	10.00	5.25	5.00	7.25	7.00
	4.25	9.00	3.50	7.00	5.25	9.00	6.25	8.00	4.375	8.25	4.375	6.25	10.00	5.00	7.00	6.00
	4.00	10.00	4.50	9.00	6.00	7.75	6.625	6.00	6.50	9.50	3.625	6.25	5.75	7.75	4.75	6.50
	3.75	10.00	4.75	9.25	2.875	6.50	6.00	8.875	6.50	8.00	4.625	5.75	6.25	6.50	6.875	8.00
	4.25	7.00	4.25	10.25	4.25	7.00	6.50	9.00	5.375	5.50	8.25	8.75	5.50	5.25	4.25	5.75
	2.25	3.25	2.50	6.00	4.625	6.00	4.125	7.50	5.375	8.50	4.375	8.25	3.25	5.25	5.75	7.00
	3.00	9.50	5.00	8.25	6.375	7.00	3.50	7.375	4.375	9.00	4.00	8.75	10.50	7.25	8.50	6.75
	4.25	9.00	3.25	5.50	4.125	6.00	6.50	7.00	5.50	8.00	4.50	9.25	6.50	5.75	4.25	5.25
	3.75	7.25	3.50	8.00	5.25	7.875	6.375	8.25	4.50	7.00	3.50	6.75	7.25	7.75	16.50	7.75
	2.50	5.25	3.50	8.50	4.75	6.25	4.50	6.25	4.75	7.00	4.375	7.25	8.25	7.75	10.25	8.50
	3.00	6.50	3.25	6.00	4.625	2.75	7.875	8.00	4.75	6.00	3.375	8.00	5.75	7.50	4.75	7.00
Totals	97.00	191.50	90.25	200.50	124.125	171.25	132.125	175.875	127.375	177.00	129.00	186.00	171.125	173.00	175.375	160.00

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	6.00	92.61	10.75	53.75	8.75	135.05	10.50	52.50	9.50	146.63	11.50	57.50	16.50	254.67	9.00	45.00
Lowest	2.25	34.73	3.00	15.00	2.50	38.59	2.75	13.75	3.00	46.30	2.25	11.25	3.00	46.30	4.00	20.00
Average	3.745	57.80	7.84	39.20	5.155	79.10	6.94	34.70	5.13	79.18	7.26	36.30	6.93	106.96	6.66	33.30
Tests above average	26		31		24		30		21		24		21		29	
Tests below average	24		19		25		20		29		26		29		21	

WISCONSIN.

RAMS, 2 YEARS OLD.

Catalogue number of samples..	760.				761.				725.				727.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters	4.50	7.00	8.00	6.25	4.00	4.00	4.00	2.00	9.75	8.125	5.25	3.125	5.25	10.00	3.75	5.00
	3.125	6.50	4.50	8.00	6.00	7.75	6.50	5.25	4.625	5.25	8.625	3.50	8.00	5.00	5.50	10.25
	5.25	7.875	6.25	6.50	4.75	6.50	5.00	3.75	7.00	3.00	3.375	6.125	3.50	7.25	4.25	6.00
	3.75	5.75	6.25	7.00	3.50	1.50	6.50	6.00	3.625	5.75	3.00	2.75	6.25	8.875	3.25	7.50
	6.25	7.75	6.25	8.25	3.00	2.00	3.50	6.00	7.00	5.75	4.375	7.00	4.00	7.00	4.25	9.00
	7.25	8.00	2.50	4.25	4.00	5.25	5.00	3.75	6.00	5.00	6.375	7.75	8.375	7.00	8.25	9.00
	4.375	7.75	5.25	9.00	6.00	7.00	4.50	5.75	4.00	2.00	2.625	2.50	4.50	7.00	5.50	7.00
	3.00	4.75	3.25	6.25	5.50	5.25	3.00	3.00	4.625	7.875	5.25	6.00	4.25	7.00	4.375	4.75
	3.50	7.00	4.00	4.75	4.00	4.00	3.25	3.00	3.375	5.875	4.50	6.25	3.75	8.00	4.375	9.00
	5.75	5.25	2.75	6.25	3.00	2.00	2.75	1.50	4.625	7.75	10.75	6.625	4.50	7.25	3.625	8.50
	4.50	5.50	4.25	7.75	2.75	2.00	5.25	6.75	2.875	4.25	6.875	7.125	4.00	5.25	5.375	8.25
	5.00	7.75	8.00	4.25	5.00	4.75	4.00	5.25	11.25	6.875	9.125	7.00	3.375	5.375	4.50	8.00
	2.75	5.875	6.75	7.875	6.00	5.25	3.60	1.50	6.25	4.25	4.25	7.00	5.75	8.75	3.25	5.25
	3.625	8.25	3.00	8.25	4.75	6.50	2.25	2.25	2.25	4.00	5.375	6.25	4.00	6.75	4.75	10.25
	5.00	5.875	3.625	8.75	4.75	6.25	4.00	7.00	7.00	6.00	2.25	1.00	6.00	6.50	8.50	9.875
	3.75	3.75	2.50	7.00	5.00	6.50	6.00	7.75	5.00	6.00	7.00	5.00	3.375	7.50	7.50	6.50
	3.75	7.875	3.375	7.25	6.00	4.00	3.00	3.25	4.625	7.00	3.75	6.00	4.625	6.00	5.50	6.00
	4.00	7.50	2.75	7.25	5.00	4.25	3.00	5.00	3.00	2.50	5.50	5.75	3.625	7.25	5.50	5.00
	3.00	7.25	5.125	7.75	4.00	4.00	5.75	5.50	5.00	5.00	6.00	7.50	6.25	7.25	5.00	6.25
	2.75	5.25	8.75	9.75	4.00	4.00	6.75	4.00	4.50	6.125	5.625	5.125	6.75	7.25	5.50	9.25
	3.50	4.75	6.625	8.125	4.00	4.75	4.00	6.75	2.50	3.25	5.75	6.00	6.50	7.75	5.50	8.25
	4.00	8.75	4.50	8.625	4.00	3.75	4.00	2.50	3.75	2.00	4.625	3.375	6.00	4.875	3.50	5.00
	4.50	4.75	3.50	8.50	5.00	5.00	4.00	4.50	5.50	4.00	9.75	7.25	8.00	8.25	4.00	10.00
	3.00	8.00	5.50	6.75	2.75	1.00	3.75	2.00	5.50	8.125	2.75	5.125	5.25	7.50	5.00	8.75
	3.25	8.75	5.00	8.25	4.00	5.75	6.00	5.75	6.625	6.875	7.00	7.25	5.00	7.50	3.75	7.00
Totals	103.125	162.625	122.25	182.625	110.75	113.00	108.75	109.75	121.25	122.625	137.75	138.875	131.375	182.125	123.50	191.125

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	8.75	133.05	9.75	48.75	6.75	104.18	7.75	38.75	11.25	173.64	8.25	41.25	8.50	131.19	10.25	51.25
Lowest	2.50	38.59	3.75	18.75	2.75	42.45	1.00	5.00	2.25	34.73	2.00	10.00	3.25	50.16	4.75	23.75
Average	4.51	69.61	6.91	34.55	4.39	67.76	4.46	22.30	5.18	79.95	5.23	26.15	5.098	78.69	7.47	37.35
Tests above average	18		30		22		28		25		30		20		24	
Tests below average	32		22		28		24		25		20		38		[illegible]	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

WISCONSIN.

Catalogue number of samples.	RAMS, 3 YEARS OLD.												RAMS, 4 YEARS OLD.			
	730.				732.				740.				726.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	2.625	6.25	2.875	8.125	7.00	9.50	3.25	8.00	2.25	6.25	4.25	9.00	6.25	5.00	6.75	8.50
	3.50	7.25	3.625	8.25	5.75	7.25	4.00	9.50	2.50	8.00	5.50	7.00	7.75	7.75	5.75	8.75
	4.375	7.00	2.375	7.125	4.00	8.75	4.00	6.75	3.875	7.25	6.25	6.25	11.00	7.00	7.00	4.50
	2.75	2.125	3.125	6.875	4.00	3.00	7.25	9.00	3.625	7.00	2.75	8.125	8.75	7.25	6.00	8.00
	6.125	7.00	3.75	7.25	5.25	7.00	4.75	7.75	3.00	7.00	6.00	8.00	8.00	6.50	8.00	2.25
	2.75	7.125	2.00	5.00	3.50	3.25	4.00	9.50	7.75	7.50	8.125	7.50	11.50	8.75	7.50	1.00
	2.50	1.125	3.50	8.50	3.00	3.50	5.00	9.00	3.875	6.25	3.125	5.00	6.75	7.50	9.25	6.75
	2.625	7.00	2.625	6.00	5.50	8.00	6.00	7.00	2.375	5.75	5.125	7.00	7.50	7.00	6.50	7.50
	2.50	6.00	2.75	7.25	5.50	3.00	6.75	8.50	3.00	5.50	5.50	9.00	6.00	4.00	7.00	8.00
	7.25	8.25	3.25	5.50	6.25	7.75	5.75	8.00	3.375	6.50	4.75	5.875	8.00	8.50	5.50	5.25
	5.50	7.25	2.75	7.125	5.00	6.00	4.50	14.00	6.875	5.25	5.50	7.125	4.00	4.00	5.75	6.00
	3.00	7.25	3.625	2.50	5.50	7.00	4.75	8.00	5.25	6.75	4.625	6.125	12.00	7.25	7.00	4.25
	4.375	7.25	2.25	6.875	4.00	3.00	3.75	8.00	2.75	4.25	2.50	7.00	9.75	4.00	7.25	7.00
	3.375	7.00	2.00	4.00	4.00	6.50	7.25	10.75	2.375	3.00	2.50	5.75	4.75	5.00	7.25	4.00
	5.00	8.00	1.75	6.00	5.25	9.75	3.75	7.50	3.875	8.00	6.00	8.00	6.00	2.00	6.00	4.00
	2.625	8.00	2.875	4.75	4.50	8.75	5.25	8.25	5.625	8.00	4.00	5.00	6.75	5.00	8.00	4.75
	4.25	7.125	3.25	3.875	4.50	9.00	5.25	9.75	2.375	7.25	4.00	8.00	4.00	4.00	9.00	4.00
	2.75	2.875	1.75	5.00	4.50	5.00	6.00	8.50	3.50	8.00	5.50	6.25	8.00	9.00	4.00	3.25
	6.00	7.00	6.00	6.75	5.50	8.75	3.75	6.75	4.375	6.00	5.625	7.00	6.25	4.75	6.25	7.00
	4.75	6.00	1.875	6.50	5.75	10.00	5.75	7.00	5.75	9.00	3.50	6.00	9.75	8.25	8.00	9.00
	2.75	6.00	4.50	7.875	3.25	3.25	5.25	10.25	3.125	8.00	2.75	4.125	8.00	9.00	12.50	8.50
	4.50	6.25	1.875	5.75	5.00	3.75	5.25	8.00	2.625	8.00	7.875	9.25	4.50	3.75	7.50	2.25
	3.25	4.875	4.00	1.25	6.25	10.25	4.00	8.00	5.50	8.00	3.25	3.25	7.00	4.25	5.50	5.25
	3.00	7.25	3.00	8.00	3.75	9.00	4.25	10.75	2.25	6.125	3.50	7.50	5.00	2.50	9.25	2.00
	3.25	7.75	3.375	3.75	4.75	7.25	5.25	8.00	4.00	8.75	5.50	7.25	9.00	3.50	7.00	8.75
Totals	93.375	159.50	74.75	155.875	127.50	165.75	127.75	213.00	92.375	171.375	118.00	171.375	176.75	141.25	175.50	133.50

Recapitulation:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	7.25	111.90	8.50	42.50	7.25	111.90	10.75	53.75	5.625	123.41	9.25	46.25	12.50	192.93	9.25	46.25
Lowest	1.75	27.01	1.125	5.625	2.63	46.30	3.00	15.00	2.25	34.73	3.00	15.00	4.00	61.74	1.00	5.00
Average	3.36	51.86	6.308	31.54	5.105	78.79	7.575	37.875	4.21	64.98	6.86	34.30	7.045	108.74	5.535	26.675
Tests above average	20		30		27		30		21		29		20		22	
Tests below average	30		20		23		19		29		21		30		28	

WISCONSIN.

Catalogue number of samples.	RAMS, 4 YEARS OLD.				EWES, 1 YEAR OLD.											
	731.				741.				742.				743.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	2.625	8.00	3.00	3.75	4.875	8.875	4.00	2.25	3.50	7.50	4.75	7.50	3.00	1.25	8.00	8.00
	3.50	9.00	2.25	5.625	4.25	7.875	3.00	6.00	3.375	8.25	2.625	6.00	6.75	8.00	5.25	8.00
	4.125	5.125	3.50	6.00	5.00	7.00	3.625	2.00	4.25	7.50	3.25	8.75	4.50	3.00	5.00	7.00
	2.625	5.125	5.75	6.25	4.375	4.00	7.625	7.50	4.00	8.00	2.75	8.75	5.25	5.75	4.50	7.25
	2.125	5.75	4.50	5.125	5.25	8.50	2.75	4.00	2.75	5.25	3.00	7.50	7.00	9.00	4.00	5.00
	3.00	5.125	2.375	4.75	3.25	6.00	2.50	2.75	5.00	8.00	6.25	8.50	8.00	9.00	8.00	7.00
	3.75	6.75	4.00	8.125	7.625	5.875	2.50	2.00	4.25	5.25	5.375	7.00	4.75	5.50	6.00	6.75
	5.625	6.25	6.50	4.875	2.375	3.00	2.625	5.125	2.25	6.25	7.50	9.875	5.50	3.75	6.25	8.00
	3.00	2.00	3.75	2.00	4.25	7.50	5.375	9.875	4.00	8.25	6.00	7.00	8.00	2.00	4.75	7.75
	5.25	5.75	5.125	8.00	5.50	9.00	3.375	4.75	4.625	5.75	8.50	9.00	5.25	9.50	3.50	2.50
	9.50	7.25	4.50	7.50	2.625	5.25	3.00	2.75	2.75	8.50	2.50	8.25	9.50	1.75	7.25	7.75
	3.50	4.75	3.50	5.00	3.50	6.75	4.50	5.25	3.00	6.75	3.25	8.25	5.50	5.50	6.50	5.75
	4.625	4.875	3.75	4.25	2.25	2.875	3.625	7.00	3.25	7.50	5.00	7.00	6.50	8.00	4.50	7.50
	3.00	6.25	5.00	7.375	2.00	1.50	3.50	6.125	3.25	8.25	4.50	7.25	5.25	7.50	8.00	8.00
	6.125	8.125	2.00	4.00	2.00	3.125	2.75	5.875	5.00	9.00	2.50	6.75	4.75	7.25	4.25	5.25
	6.75	4.75	2.50	2.875	4.00	4.75	3.625	4.875	2.625	4.75	3.50	8.00	4.50	6.25	3.50	5.00
	2.75	3.125	10.625	8.125	2.00	4.875	3.625	2.50	3.375	7.75	2.25	6.125	5.25	8.50	7.00	9.00
	2.75	7.00	2.50	6.00	3.75	2.75	3.00	5.50	5.625	8.00	4.625	7.00	6.25	8.00	4.00	4.00
	4.25	2.875	4.00	7.00	3.50	4.125	7.00	5.75	4.75	6.75	3.25	6.75	6.75	8.75	6.75	7.00
	5.875	7.00	3.50	6.75	2.75	2.125	3.625	8.25	5.75	9.00	2.00	4.50	4.25	7.00	4.00	7.75
	1.50	3.00	6.25	4.125	3.375	4.00	4.50	5.00	2.25	8.00	2.25	9.00	8.50	7.00	5.00	7.75
	3.50	6.00	2.50	5.00	3.00	1.25	3.375	3.00	3.25	8.00	4.50	9.00	6.00	7.00	10.00	4.25
	5.50	7.00	3.375	3.875	2.625	5.50	3.25	4.50	4.00	7.50	3.00	6.75	4.00	9.75	8.50	7.00
	4.00	5.75	2.125	5.00	2.50	3.875	3.25	4.00	4.75	8.00	2.25	5.50	6.00	7.00	4.75	7.00
	5.50	8.25	2.50	4.125	2.25	2.875	3.50	5.125	3.25	4.00	3.00	8.00	5.25	7.00	3.00	2.25
Totals	109.375	141.125	99.375	135.00	88.875	122.125	91.50	121.75	94.875	179.75	97.875	192.00	131.25	163.00	133.25	162.50

Recapitulation:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	10.625	163.99	9.00	45.00	7.625	117.69	9.875	49.375	8.50	131.19	9.875	49.375	10.00	154.40	9.75	48.75
Lowest	1.50	23.15	2.00	10.00	1.625	25.08	1.125	5.625	2.00	30.87	4.00	20.00	3.01	46.50	1.25	6.25
Average	4.177	64.47	5.52	27.615	3.588	55.38	4.578	22.39	3.855	59.50	7.425	37.125	5.29	81.65	6.51	32.55
Tests above average	20		26		28		28		21		30		20		33	
Tests below average	30		24		22		22		29		20		30		17	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

WISCONSIN.

EWES, 2 YEARS OLD.

Catalogue number of samples..	698.				699.				704.				708.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	5.00	8.00	2.75	3.00	5.375	7.75	4.625	9.00	8.25	8.09	4.00	6.75	4.375	9.00	3.375	7.25
	3.50	4.00	5.75	8.00	4.375	7.00	6.50	7.50	2.625	8.125	3.625	5.25	3.375	10.00	3.325	10.00
	4.25	9.00	3.00	6.00	5.25	8.00	5.00	6.75	8.50	7.125	10.625	9.00	4.25	10.50	3.00	9.25
	5.75	5.00	3.00	3.75	2.50	2.00	2.625	4.125	4.625	5.75	4.375	5.25	3.75	9.75	7.625	9.50
	4.50	8.00	4.00	9.00	5.75	6.00	2.375	6.00	6.75	1.875	3.375	6.25	3.75	9.25	3.625	9.75
	4.00	7.25	6.25	8.50	6.50	7.00	4.25	5.75	2.375	6.50	5.00	8.75	4.50	10.50	3.25	9.25
	5.25	7.75	4.75	7.50	2.50	4.25	3.50	6.75	5.25	8.50	3.50	6.00	3.75	7.75	3.625	11.75
	2.75	6.00	4.50	9.00	10.375	8.00	5.25	8.00	5.375	8.125	3.375	6.75	3.50	10.00	4.25	10.75
	3.50	8.75	3.50	5.75	2.625	7.00	5.00	8.00	5.625	4.50	4.25	7.75	3.50	9.00	2.50	6.00
	4.25	5.00	5.50	7.00	4.625	7.875	3.625	6.50	13.00	9.00	5.00	10.25	5.375	7.25	2.75	6.75
	3.75	8.75	4.00	8.50	4.50	6.25	4.25	8.00	7.375	7.25	6.375	7.25	3.50	7.75	4.00	10.00
	4.00	3.00	4.75	8.75	4.25	3.25	3.00	6.00	7.50	8.25	6.625	9.25	2.50	7.00	6.00	7.00
	6.50	8.00	4.75	9.00	2.50	5.00	5.00	4.00	4.375	1.50	3.00	7.25	4.00	8.875	5.25	7.00
	4.75	8.00	3.00	4.00	4.00	7.875	3.00	5.00	2.75	7.00	4.625	3.50	3.75	8.00	4.50	10.75
	3.75	4.00	7.00	9.00	5.00	4.00	5.875	6.00	3.375	8.75	4.625	8.75	3.375	7.75	3.75	9.875
	5.00	7.00	3.75	8.75	2.875	6.00	4.50	5.00	13.625	9.00	12.00	7.25	3.625	7.50	3.375	10.50
	3.00	5.25	3.50	5.00	3.625	6.00	2.50	4.625	5.00	9.75	3.00	9.00	4.00	6.75	5.625	8.125
	3.75	8.00	5.25	8.00	3.00	7.375	3.50	6.00	4.375	9.25	3.50	8.25	3.00	10.25	3.00	6.25
	3.00	7.00	4.00	9.00	4.00	6.00	3.125	7.00	4.50	9.00	2.00	4.50	4.00	10.00	3.25	8.125
	4.25	4.00	3.75	8.00	6.00	9.00	4.25	6.00	4.00	7.00	3.625	7.75	3.50	10.00	3.25	8.50
	3.00	4.00	3.00	6.75	4.25	7.125	3.25	6.875	3.375	8.25	5.75	7.00	3.875	9.125	5.00	9.25
	6.00	6.75	2.25	3.00	3.375	6.75	5.375	5.00	4.375	9.50	4.375	6.875	3.75	10.00	3.50	9.00
	4.50	8.00	2.75	6.00	2.875	2.00	3.00	7.00	3.375	8.50	4.00	3.125	3.50	9.00	3.00	9.50
	3.00	7.25	5.50	8.75	2.50	9.00	3.00	4.75	7.625	9.25	4.50	9.00	3.625	9.50	2.75	7.875
	3.00	4.75	4.00	10.00	4.00	3.00	4.25	7.25	5.00	8.25	2.50	2.125	3.75	7.00	4.00	9.00
Totals	104.00	162.50	105.25	180.00	106.625	154.00	100.625	155.875	143.00	189.00	117.625	172.875	93.875	221.50	97.50	211.00

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	7.00	108.04	10.00	50.00	10.375	160.13	9.00	45.00	3.625	210.30	10.25	50.125	6.00	92.61	11.75	58.75
Lowest	2.25	34.73	3.00	15.00	2.375	36.65	2.00	10.00	2.00	90.87	1.50	7.50	2.50	38.59	6.00	30.00
Average	4.185	64.59	6.85	34.25	4.125	63.67	61.99	30.995	5.213	80.46	7.238	36.19	3.828	59.08	8.65	43.25
Tests above average	22		30		25		25		16		30		17		31	
Tests below average	28		20		25		25		34		26		33		19	

WISCONSIN.

EWES, 2 YEARS OLD.

Catalogue number of samples..	709.				710.				744.				745.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	4.00	4.00	3.50	8.75	3.75	7.00	4.25	4.875	2.50	2.375	2.00	7.25	7.50	9.00	10.50	7.00
	2.25	2.25	4.25	8.00	4.50	7.125	3.625	6.25	3.375	8.75	3.375	5.50	4.50	10.00	7.25	8.00
	3.00	4.00	3.50	7.25	5.00	7.75	4.25	5.25	2.50	8.00	3.25	7.25	3.50	5.00	2.25	2.00
	4.50	6.00	5.50	3.00	3.875	8.00	4.00	5.875	3.25	2.00	4.75	4.00	7.00	7.75	3.75	6.75
	4.00	5.00	4.75	3.00	4.50	6.00	5.25	6.00	4.125	7.00	2.375	5.25	3.00	7.25	4.00	7.00
	6.75	7.00	3.50	2.50	3.625	7.00	3.50	7.00	5.75	8.125	2.50	9.00	5.50	4.50	4.00	8.25
	3.00	3.75	3.50	3.50	5.375	6.875	3.75	6.125	2.25	3.375	1.25	5.125	6.25	9.75	12.00	10.25
	2.75	3.00	2.25	4.00	3.00	3.00	4.25	8.00	1.375	2.00	2.875	8.125	3.25	8.50	7.75	9.00
	4.00	7.50	3.50	3.00	3.50	2.00	7.00	8.50	2.75	6.25	2.625	8.00	4.00	3.25	6.00	9.50
	3.25	7.00	5.50	8.00	3.375	7.50	2.75	7.00	2.50	4.625	3.50	6.75	8.00	7.50	4.00	3.50
	6.00	3.50	3.75	4.75	6.375	9.00	4.625	7.00	4.125	7.875	2.50	3.875	7.00	7.00	6.00	7.50
	5.50	5.50	4.00	5.50	6.50	8.00	3.25	5.75	1.75	7.25	4.50	8.00	6.00	7.75	5.75	8.00
	3.00	4.00	4.25	8.00	4.00	7.00	5.25	8.00	4.125	7.50	3.75	7.00	7.75	10.00	6.00	7.75
	4.00	8.00	3.25	6.00	6.25	8.00	5.75	4.00	3.50	6.50	4.75	7.00	5.25	6.00	4.00	3.00
	3.00	3.25	3.00	3.00	3.75	7.75	2.375	7.00	2.50	7.00	3.50	5.00	4.75	6.50	5.00	8.75
	5.00	10.00	7.00	7.25	5.375	7.875	3.625	4.75	2.00	7.00	5.50	5.00	6.00	8.75	3.00	4.50
	4.50	5.75	5.00	6.00	3.00	3.625	2.50	9.00	3.125	8.00	2.50	2.875	6.75	7.00	6.50	8.00
	3.50	7.00	7.25	8.75	6.00	7.25	5.25	9.875	3.00	8.50	1.50	4.125	4.25	6.50	5.50	6.00
	3.75	6.00	3.50	3.00	4.50	4.125	4.50	8.125	3.50	8.125	4.625	8.50	6.25	9.00	4.00	8.00
	2.75	5.25	3.50	8.00	3.50	5.25	3.625	9.00	2.50	7.00	5.00	7.875	7.75	9.00	6.00	6.00
	3.25	5.00	4.00	3.75	3.75	7.875	6.375	9.00	4.50	8.125	5.625	8.125	4.75	2.00	4.00	7.25
	3.00	3.00	3.50	7.50	3.875	7.50	4.50	7.00	1.75	7.00	4.00	7.50	5.00	3.00	4.00	7.25
	8.00	7.50	5.00	9.00	3.875	6.125	3.00	5.625	2.625	5.00	4.25	8.375	10.25	7.75	5.75	9.00
	3.50	5.00	3.75	4.00	6.00	8.25	3.25	7.00	2.75	4.125	3.625	7.00	5.25	8.50	3.00	2.00
	4.00	8.50	3.00	2.75	3.125	2.25	3.375	6.125	2.375	5.125	2.50	7.00	5.00	8.00	4.00	4.50
Totals	100.25	136.75	103.50	137.25	110.00	162.125	104.875	170.125	74.50	156.625	85.875	164.00	144.50	179.25	134.00	168.75

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	8.00	123.43	10.00	50.00	7.00	108.04	9.00	45.00	5.75	88.75	9.00	45.00	12.00	185.22	10.25	51.25
Lowest	2.25	34.73	2.25	11.25	2.375	36.60	2.00	10.00	1.25	19.29	2.00	10.00	2.25	34.73	2.00	10.00
Average	4.075	62.90	5.48	27.40	4.298	66.34	6.645	33.225	3.208	49.51	6.413	32.065	5.77	89.06	6.96	34.80
Tests above average	16		25		19		31		24		32		21		24	
Tests below average	34		25		31		19		26		18		29		26	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

WISCONSIN.

EWES, 2 YEARS OLD.

Catalogue number of samples..	716.				762.				763.				764.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	3.375	5.875	3.75	8.125	3.25	6.25	5.75	6.00	5.375	8.25	6.00	8.75	7.00	3.00	8.25	8.00
	3.00	6.875	3.00	6.125	3.375	7.00	5.50	7.875	5.625	7.25	4.375	7.00	7.25	8.25	9.00	8.50
	7.75	7.75	4.375	8.125	4.375	6.75	3.50	6.75	2.25	1.00	3.625	7.25	6.25	9.00	6.00	9.00
	3.625	7.875	3.75	8.00	3.125	5.00	6.75	8.25	3.50	4.75	4.25	8.00	4.00	1.75	3.25	3.50
	5.00	7.00	6.625	7.875	5.00	5.00	3.50	4.00	4.00	1.00	4.75	5.50	5.00	8.00	10.00	7.25
	3.625	6.25	3.125	9.00	3.125	6.00	4.50	5.00	5.25	9.00	6.375	7.25	5.00	8.00	10.25	8.25
	2.75	7.00	4.75	7.00	4.625	6.50	4.125	8.25	6.50	10.50	4.75	8.00	4.00	5.00	7.00	9.25
	2.375	7.00	3.625	8.00	3.25	5.25	3.50	5.00	5.375	6.50	5.75	8.50	3.75	3.00	5.00	8.50
	7.50	8.00	2.50	5.125	3.75	6.00	3.00	8.00	4.375	8.75	2.00	1.75	3.00	3.00	4.00	4.75
	5.25	3.50	3.375	8.50	3.75	6.125	4.00	8.00	7.375	7.00	4.625	1.75	3.00	6.00	8.00	9.25
	3.25	6.125	2.75	8.50	5.50	8.00	2.00	4.00	4.00	6.25	3.375	5.75	6.25	10.25	4.00	7.25
	4.625	8.875	2.50	6.00	5.375	7.00	3.125	5.00	6.00	8.00	3.875	5.25	7.75	8.00	3.25	5.50
	3.00	1.25	4.00	1.00	2.50	4.125	3.125	5.75	5.625	9.00	3.625	6.25	4.00	7.00	6.75	8.00
	4.25	5.00	6.00	10.00	3.50	7.00	2.75	7.25	4.375	7.75	4.50	9.00	6.00	6.75	4.50	7.25
	8.375	9.125	4.50	8.00	6.625	6.50	5.50	7.75	2.625	1.00	3.625	6.25	5.00	8.25	4.50	7.75
	3.375	8.00	3.375	6.125	2.75	7.00	2.00	5.50	5.625	10.00	2.375	4.00	5.00	6.50	5.00	8.00
	2.75	4.875	2.50	8.00	6.25	7.25	2.00	4.75	2.625	4.75	5.375	7.00	3.75	3.75	3.50	5.00
	2.875	8.00	2.625	6.00	4.75	6.00	3.00	7.00	5.50	8.75	7.50	7.25	8.00	7.25	5.50	8.75
	3.625	4.825	3.00	7.25	4.25	7.75	2.25	4.75	5.50	8.75	3.625	7.00	4.00	1.75	7.75	8.50
	4.00	5.75	3.25	7.125	4.125	7.00	2.875	6.25	3.625	6.00	4.00	8.50	5.25	7.00	3.25	2.25
	3.375	4.00	2.625	6.125	4.875	5.00	3.125	6.00	3.00	6.25	4.375	5.00	3.50	4.75	4.00	7.00
	4.375	9.00	4.25	8.00	3.50	8.00	3.375	7.00	3.25	6.00	5.00	6.00	7.00	8.75	10.00	8.25
	4.625	7.00	2.50	8.00	3.50	7.75	7.125	7.875	5.00	8.00	4.50	7.75	3.25	4.00	9.50	9.00
	2.00	5.50	3.50	6.50	3.00	7.00	2.50	5.00	4.625	7.75	3.625	6.00	11.00	7.00	4.75	8.00
	2.75	3.125	3.625	7.875	3.50	6.125	5.75	9.25	3.75	2.25	5.625	7.75	4.00	5.75	6.00	5.50
Totals	102.00	187.825	90.125	180.375	101.625	162.375	93.625	167.25	114.475	167.75	111.25	169.75	135.00	152.75	154.50	182.25

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	8.375	129.27	8.75	50.00	7.125	109.97	9.25	46.25	7.50	115.16	10.50	52.50	10.25	158.20	10.25	51.25
Lowest	2.00	30.87	1.25	6.25	2.00	30.87	4.00	20.00	2.00	30.87	1.00	5.00	3.25	50.16	1.75	8.75
Average	3.943	59.32	5.703	33.83	3.91	60.35	6.50	32.95	4.52	69.76	6.75	33.75	5.75	89.37	6.75	33.50
Tests above average	17		30		20		26		22		20		24		32	
Tests below average	33		20		30		24		28		21		26		18	

WISCONSIN.

EWES, 2 YEARS OLD.

Catalogue number of samples..	765.				766.				767.				768.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	4.00	6.50	10.50	10.00	6.50	7.00	3.375	8.75	5.00	8.00	2.50	7.25	4.00	10.75	4.00	8.50
	4.00	8.75	3.75	10.75	3.375	9.75	3.00	6.375	4.125	8.50	2.50	5.00	8.75	8.50	8.25	5.25
	4.25	10.00	4.00	9.75	4.50	9.875	4.75	7.00	2.50	5.50	2.75	4.25	5.00	9.00	5.25	7.75
	4.00	7.00	3.50	9.75	4.00	7.00	9.50	9.00	2.25	5.75	6.25	6.50	7.25	8.50	8.00	6.50
	5.00	8.00	5.50	10.25	4.50	7.00	4.125	8.00	2.75	5.25	5.50	7.00	9.00	9.50	2.75	4.75
	6.50	6.75	5.00	8.00	3.50	7.75	4.875	9.00	9.125	8.50	3.00	6.125	6.00	9.00	4.00	9.25
	5.50	10.00	4.75	9.00	5.50	7.75	4.50	6.75	5.125	7.375	3.625	7.25	9.00	8.75	4.00	3.00
	5.50	8.50	4.75	9.00	3.75	5.00	8.75	9.00	3.00	4.50	3.00	5.00	5.00	7.75	7.00	8.75
	5.25	10.25	7.00	9.00	6.00	7.00	4.375	7.25	3.50	6.875	3.25	7.00	3.75	7.00	4.75	9.00
	3.50	7.75	7.25	9.75	4.50	6.75	5.00	8.00	8.25	8.50	2.50	6.875	5.00	4.75	2.00	3.50
	5.00	9.00	5.50	8.50	5.50	8.75	7.00	9.00	6.50	4.25	3.00	7.00	3.00	8.50	8.00	8.00
	6.00	9.75	8.00	9.75	4.875	8.875	7.25	6.00	9.875	8.00	3.00	5.875	3.25	9.00	4.50	7.00
	4.00	7.50	6.50	9.50	7.00	7.75	5.25	7.00	2.375	7.00	2.50	8.75	4.00	5.50	5.00	7.25
	7.50	13.00	5.00	13.00	4.75	7.75	4.75	5.75	4.25	8.75	5.00	7.875	4.50	7.00	5.50	8.50
	4.75	11.50	3.00	5.25	4.75	9.00	5.25	5.00	2.50	6.25	4.50	8.75	5.00	3.00	5.00	4.50
	4.25	9.00	5.25	10.25	2.50	5.00	5.50	7.25	7.75	7.25	7.00	7.00	4.00	8.00	5.50	7.50
	5.75	9.00	4.25	6.00	3.375	8.75	4.25	6.75	4.625	7.75	3.75	6.00	5.00	8.50	4.25	7.00
	8.75	9.75	6.50	9.50	6.00	6.25	4.625	7.00	9.50	7.00	5.625	8.00	4.50	8.00	4.00	7.25
	4.00	13.00	4.00	8.50	4.50	9.00	5.25	6.50	2.50	8.00	2.625	4.25	4.50	9.00	6.00	8.75
	8.00	10.25	8.75	7.50	4.25	9.25	4.50	8.00	8.25	7.00	3.625	7.875	3.50	4.50	3.50	4.75
	6.50	9.25	4.25	10.00	4.50	8.00	6.75	8.00	12.75	8.00	3.375	8.00	12.00	9.75	3.75	8.75
	4.25	8.00	7.50	9.25	8.50	9.00	4.75	7.00	3.625	7.50	4.625	6.00	7.25	8.75	4.50	9.75
	3.50	9.25	5.75	11.00	3.25	5.25	6.25	7.25	7.375	7.375	2.25	5.25	3.75	8.75	4.00	6.50
	6.00	9.00	3.50	7.00	8.75	7.75	5.00	7.75	3.375	7.00	5.25	8.00	6.25	7.75	8.75	9.00
	4.00	9.75	7.00	11.75	3.375	6.75	6.25	7.00	5.875	8.00	3.25	7.00	4.75	9.50	4.75	8.00
Totals	129.75	226.00	137.75	229.00	121.50	195.00	130.875	186.375	134.75	177.375	94.25	169.375	139.00	176.00	116.00	183.75

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	10.50	162.06	11.75	58.75	9.50	146.63	9.875	49.375	12.75	196.79	8.75	43.75	12.00	185.21	10.75	53.75
Lowest	3.00	46.30	5.25	26.25	2.50	38.59	5.00	25.00	2.25	34.73	4.25	21.25	2.00	30.869	3.00	15.00
Average	5.35	82.58	9.10	45.50	5.05	77.94	7.63	38.15	4.58	70.69	6.82	34.10	5.10	78.72	7.20	36.00
Tests above average	22		28		26		19		20		31		19		34	
Tests below average	28		23		24		31		30		19		31		16	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

WISCONSIN.

EWES, 2 YEARS OLD.

Catalogue number of samples..	769.				782.				783.				787.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	3.00	7.75	7.625	7.75	4.50	7.00	3.50	7.50	7.75	7.25	7.25	8.25	6.00	8.25	3.50	5.50
	12.625	8.50	4.375	6.25	4.75	5.00	3.50	7.25	5.25	6.875	6.50	8.50	5.50	7.00	5.125	8.00
	6.50	6.75	8.00	8.50	4.00	8.00	4.50	8.00	6.00	8.75	6.00	6.50	4.375	8.125	3.75	6.00
	6.25	7.50	10.50	8.00	3.75	8.00	6.00	8.00	4.00	5.50	5.00	9.00	3.125	7.00	2.875	7.00
	7.625	5.75	3.625	6.25	5.00	8.50	5.25	6.00	4.375	7.875	8.50	8.00	3.375	7.25	3.625	7.00
	6.25	8.00	6.625	8.50	3.25	8.00	2.50	2.00	5.50	5.00	4.25	9.00	6.50	8.00	8.00	8.125
	11.625	8.25	5.00	5.75	3.00	8.25	4.50	8.50	5.00	6.75	5.00	7.00	4.375	7.50	6.50	8.875
	4.25	5.25	7.75	7.75	3.25	2.00	3.50	8.25	6.25	7.875	5.00	8.00	3.25	9.00	4.375	7.25
	6.625	7.25	3.625	8.50	3.25	4.00	3.00	7.00	4.75	7.50	7.00	8.75	3.50	8.00	4.25	8.00
	5.625	8.75	5.50	5.25	4.00	6.00	3.25	5.00	4.00	3.25	4.50	8.50	5.50	8.25	7.00	8.25
	7.625	7.75	5.00	9.00	3.25	6.00	3.25	2.00	7.375	7.875	6.50	9.50	3.00	8.00	5.50	7.00
	8.75	7.50	6.875	6.75	3.75	8.00	3.25	9.00	5.50	8.25	2.75	5.25	2.50	5.125	5.00	8.00
	3.625	5.50	3.125	6.50	3.25	7.75	3.50	5.50	3.75	6.75	4.75	8.50	5.625	7.875	6.00	8.00
	7.50	7.75	6.75	8.00	3.25	7.00	4.00	7.00	6.50	6.50	7.25	7.75	5.00	8.25	5.75	8.00
	6.50	7.50	2.625	1.75	3.25	8.00	5.25	8.00	6.375	7.50	5.25	9.00	4.625	7.50	8.00	8.125
	5.00	8.25	8.375	9.00	3.25	5.00	3.50	6.50	6.00	8.75	6.00	7.25	5.50	9.00	6.00	9.125
	12.375	8.00	5.50	8.50	6.25	8.00	3.75	8.00	5.00	6.75	5.375	7.25	5.00	9.00	9.875	9.00
	5.375	6.75	5.625	2.00	2.25	3.50	3.00	6.00	4.50	7.75	3.25	8.50	6.375	7.00	4.875	7.125
	4.375	8.50	5.00	8.25	2.25	6.25	3.50	1.00	3.25	5.00	5.50	6.875	4.875	6.125	6.625	8.00
	2.625	3.75	5.25	8.25	3.50	5.25	3.75	5.25	3.00	6.75	6.00	7.00	3.50	9.125	4.25	6.00
	4.25	8.50	5.625	7.25	2.50	7.50	4.00	5.00	3.75	8.00	6.75	7.25	5.00	9.875	6.25	6.00
	7.375	6.00	3.75	8.50	2.50	7.00	4.25	5.00	3.75	7.875	6.00	7.50	5.625	9.00	8.50	8.00
	2.00	5.25	7.375	6.00	3.25	8.25	3.25	8.00	5.00	8.50	6.75	8.00	3.875	8.00	3.375	8.00
	10.625	8.75	5.75	7.00	4.00	8.00	6.00	7.00	5.00	7.50	5.75	7.00	2.875	8.00	5.50	4.00
	7.625	4.75	8.375	8.00	3.50	9.00	3.25	4.75	4.25	7.75	4.875	8.50	2.75	4.00	5.375	8.00
Totals	163.00	78.25	140.625	177.25	88.75	169.25	97.00	155.50	125.875	178.125	141.75	196.675	111.625	194.25	139.875	186.375

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	12.625	194.86	9.00	45.00	6.25	96.47	9.00	45.00	8.50	131.19	9.50	47.50	9.875	152.42	9.875	49.375
Lowest	2.00	30.869	1.75	8.75	2.25	34.73	1.00	5.00	2.75	42.44	1.625	8.125	2.50	38.59	4.00	20.00
Average	6.07	93.688	7.11	35.55	3.71	57.26	6.49	32.45	5.35	82.58	7.495	37.475	5.03	77.64	7.61	38.05
Tests above average	23		31		20		30		24		30		23		31	
Tests below average	27		19		30		20		26		20		27		19	

WISCONSIN.

EWES, 3 to 5 YEARS OLD.

Catalogue number of samples..	700.				701.				702.				703.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	3.875	4.00	8.25	6.125	5.25	7.75	4.75	8.75	7.625	10.00	5.50	8.75	2.75	4.50	3.75	7.00
	4.125	4.00	3.50	4.125	7.00	8.50	3.50	5.75	4.50	8.25	7.00	8.75	7.00	6.75	9.75	8.00
	1.50	7.00	5.75	5.25	8.25	9.00	5.00	8.75	4.375	6.50	4.00	7.75	4.00	9.00	3.75	3.00
	3.75	5.75	7.625	10.00	5.25	7.00	5.75	8.00	4.00	8.25	3.00	9.00	3.25	3.50	6.00	7.75
	3.375	7.00	5.25	8.50	4.50	8.50	7.00	8.00	4.25	6.75	9.25	6.00	4.75	7.75	7.25	7.00
	3.75	5.00	12.25	6.125	4.00	7.00	7.50	9.00	3.50	5.75	7.00	7.25	4.00	5.50	9.50	6.00
	3.00	5.875	4.50	7.50	6.25	9.00	3.75	6.50	4.25	7.75	7.375	10.25	7.25	7.00	6.00	8.00
	4.25	6.75	3.75	2.25	3.00	3.75	6.50	7.75	3.75	7.75	3.50	5.00	4.75	8.00	8.75	7.00
	4.25	9.00	9.875	8.00	6.00	8.00	6.75	8.75	7.25	9.25	4.50	6.25	5.00	5.00	10.25	7.75
	6.00	7.25	3.75	6.125	5.00	8.50	3.50	3.00	6.00	9.00	5.00	9.50	3.50	4.00	6.00	8.75
	5.625	3.00	10.25	7.875	4.50	8.00	3.00	3.00	3.625	9.00	5.375	7.00	4.50	9.00	6.25	9.50
	3.75	8.00	6.50	8.00	3.75	6.00	3.75	8.50	8.00	7.75	3.625	5.50	6.50	8.00	10.50	7.50
	4.00	3.875	6.75	9.00	6.50	7.00	6.00	3.75	4.00	9.25	4.50	6.50	4.00	6.00	7.00	7.25
	5.875	7.75	7.75	8.25	4.00	9.00	4.00	6.50	5.50	8.25	8.25	10.75	5.25	8.75	7.25	5.75
	5.75	7.125	3.50	6.125	3.75	5.00	4.00	7.00	5.625	8.25	5.50	8.25	6.00	7.25	7.75	8.50
	4.25	7.00	4.375	7.00	9.25	9.00	4.50	5.00	5.75	8.25	5.00	7.25	5.50	7.75	5.75	5.75
	5.50	7.125	6.25	8.75	4.25	9.25	3.00	3.00	6.00	8.75	3.75	7.25	5.50	9.25	12.25	8.00
	4.50	8.00	4.75	2.875	3.50	9.00	4.00	8.00	6.50	8.75	5.50	9.50	6.00	7.75	3.00	7.50
	3.625	5.00	7.25	3.75	6.00	8.00	4.00	8.75	3.50	8.50	4.50	8.25	10.00	7.75	3.00	4.75
	8.25	7.25	10.25	5.25	3.75	9.50	4.25	8.50	3.50	8.00	4.50	8.25	6.25	7.25	10.75	9.00
	5.50	4.00	4.375	6.25	4.75	2.50	3.50	7.00	5.375	8.25	4.00	8.75	6.75	8.50	4.00	8.25
	6.25	2.875	5.25	5.75	4.25	8.00	4.00	5.50	6.00	4.25	3.625	5.00	5.75	7.25	6.75	8.75
	8.25	4.00	7.50	6.00	7.25	8.50	5.25	8.00	3.75	6.50	5.50	10.00	7.00	5.00	8.60	7.75
	2.50	3.875	4.00	8.00	4.50	8.00	4.25	7.00	5.375	8.25	6.25	8.875	11.00	7.00	13.25	8.00
	4.50	4.125	14.25	8.00	3.50	9.00	4.00	9.00	4.00	5.00	6.00	8.50	6.00	7.50	9.00	7.00
Totals	123.00	153.625	169.50	164.875	129.00	192.75	115.50	177.75	126.00	196.25	132.00	200.125	142.25	174.50	185.50	183.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	14.25	219.94	10.00	50.00	9.25	142.77	9.50	47.50	9.25	142.77	10.75	53.75	13.25	204.51	9.50	47.50
Lowest	3.00	46.30	2.25	11.25	3.00	42.30	2.50	12.50	3.00	46.30	3.00	15.00	2.75	42.44	3.00	15.00
Average	5.81	89.68	6.37	31.85	4.89	75.48	7.41	37.05	5.16	79.64	7.924	39.62	6.555	101.17	7.16	35.80
Tests above average	19		25		19		32		24		30		21		32	
Tests below average	31		25		21		18		26		20		29		18	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

WISCONSIN.

EWES, 3 TO 5 YEARS OLD.

Catalogue number of samples..	705.				706.				707.				711.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	7.25	7.75	3.00	9.00	6.25	9.00	7.00	8.50	5.00	6.875	3.00	3.00	7.00	7.00	5.00	6.00
	2.50	6.125	3.625	8.75	3.00	8.00	6.50	8.25	6.75	5.75	3.25	5.00	3.00	4.00	3.00	7.50
	7.50	8.50	8.25	5.75	6.50	9.00	5.00	5.00	3.375	6.875	3.375	5.75	7.50	6.00	3.00	6.00
	8.00	5.00	5.00	9.75	7.25	6.75	10.25	8.75	2.75	5.00	2.375	2.125	5.00	4.50	5.75	5.25
	7.50	5.75	4.50	9.875	5.75	5.25	3.50	5.00	3.50	3.50	4.75	5.125	12.50	5.00	10.00	8.50
	5.00	8.50	3.50	7.25	6.25	7.50	9.00	8.50	2.375	5.00	4.50	3.00	5.50	7.50	4.75	4.25
	4.25	6.75	9.50	5.00	6.75	4.00	4.50	3.00	5.375	6.125	5.00	7.00	8.00	6.50	4.00	3.00
	4.50	5.75	12.00	9.875	7.00	7.75	6.50	7.00	7.50	6.75	3.25	6.125	3.75	5.00	5.00	6.50
	4.375	6.75	4.375	9.50	6.25	6.00	6.50	5.00	3.875	3.75	2.625	5.50	7.00	6.00	3.00	3.00
	7.25	9.00	4.50	8.25	6.50	5.00	4.00	2.00	4.625	7.75	2.75	4.75	6.25	7.00	4.00	5.50
	3.625	9.75	3.00	5.25	5.00	5.75	7.25	10.00	5.625	7.25	3.75	7.00	5.00	7.00	3.00	3.00
	8.00	6.75	6.25	8.125	5.00	6.50	6.25	5.75	2.75	4.875	4.625	7.00	12.50	5.00	4.00	6.00
	10.00	8.00	3.00	8.75	5.50	5.00	3.75	2.50	3.625	7.00	7.00	6.00	8.50	8.00	4.00	6.00
	2.50	5.50	4.625	7.875	6.00	5.50	4.75	4.00	2.75	3.50	4.75	7.125	5.00	7.00	3.00	2.00
	6.00	5.75	4.00	8.00	4.25	5.25	4.00	3.00	4.125	7.50	4.50	7.75	5.75	6.75	7.00	8.25
	7.00	7.50	3.375	6.00	5.25	3.00	5.75	8.50	4.375	8.125	3.50	6.00	6.00	8.00	3.75	6.50
	7.625	5.50	6.25	7.50	7.25	6.00	4.00	2.75	4.25	6.50	7.00	4.00	5.50	7.00	6.00	8.00
	7.50	8.50	6.25	10.00	6.50	8.00	7.25	5.50	5.50	7.50	3.625	7.125	5.00	6.00	4.00	4.00
	6.50	7.25	4.75	9.00	4.25	3.75	5.50	4.00	2.75	7.75	4.625	7.75	7.50	7.50	8.00	8.50
	6.00	9.50	4.50	7.75	5.00	2.75	3.00	3.00	2.625	2.125	5.25	5.00	3.00	3.50	7.75	7.75
	3.625	6.25	3.125	8.875	7.50	7.00	8.25	8.75	4.00	4.00	7.50	8.00	6.50	7.00	7.00	10.25
	6.50	6.00	3.625	7.875	5.50	5.00	5.75	8.50	6.75	7.125	3.25	7.00	5.00	7.50	5.25	7.75
	4.625	9.00	4.25	6.125	7.25	8.50	5.00	6.75	3.50	5.00	2.25	4.00	3.25	7.00	6.50	7.00
	6.125	8.125	3.00	6.875	7.50	7.00	5.00	3.00	3.50	6.00	4.375	2.00	5.50	5.75	3.00	3.25
	8.375	8.25	4.50	7.00	6.75	7.25	6.00	2.00	3.375	7.00	3.50	1.50	6.00	6.25	6.25	6.00
Totals	138.125	182.50	122.75	198.00	166.00	181.25	133.75	130.00	104.625	144.625	107.375	134.125	155.00	163.75	134.50	148.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	12.00	185.22	10.00	50.00	10.25	158.21	10.00	50.00	5.00	77.20	7.50	40.625	12.50	192.93	10.25	51.25
Lowest	2.50	38.57	5.00	25.00	3.00	46.30	2.50	10.00	2.25	34.73	1.50	7.50	3.00	46.30	2.00	10.00
Average	5.218	80.54	7.61	38.05	5.795	89.44	5.69	28.45	4.24	65.44	5.575	27.875	5.79	89.37	8.25	31.25
Tests above average	21		27		27		26		22		21		25		28	
Tests below average	29		23		23		24		28		31		25		21	

WISCONSIN.

EWES, 3 TO 5 YEARS OLD.

Catalogue number of samples..	712.				713.				716.				717.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	4.50	8.00	3.75	7.75	3.50	9.00	2.25	9.25	6.00	8.75	3.50	6.75	9.00	9.75	11.25	6.00
	2.25	5.00	4.75	8.375	2.00	9.00	2.375	7.875	4.375	7.50	6.25	9.00	4.00	7.75	6.50	9.00
	3.00	6.00	2.75	4.125	2.25	10.75	2.00	10.00	3.875	10.00	5.75	5.00	7.50	10.00	5.75	9.00
	4.75	7.50	2.00	4.875	4.375	7.00	5.25	8.25	3.50	10.75	4.875	8.00	8.00	8.75	5.00	8.00
	3.25	6.00	7.00	7.25	5.00	10.00	3.375	8.875	3.75	9.875	4.00	5.00	6.00	9.50	5.50	8.25
	3.50	9.00	3.50	7.125	2.50	5.50	2.50	9.25	3.50	10.00	3.50	6.00	3.625	7.50	7.25	8.50
	4.375	6.875	3.00	8.25	2.25	7.75	2.375	8.00	3.00	8.75	6.75	7.00	3.625	7.50	5.50	7.25
	3.75	9.25	2.75	5.00	4.50	10.00	3.25	8.75	8.625	8.25	4.75	6.75	5.75	8.875	4.625	7.75
	3.25	4.875	4.00	6.875	3.00	8.25	3.25	9.875	5.25	8.75	3.75	5.75	6.25	9.75	4.625	7.00
	3.625	8.00	2.50	9.875	3.25	9.25	2.00	10.25	4.375	7.75	11.50	7.125	5.00	7.00	3.875	7.50
	4.25	7.75	2.25	9.50	4.25	8.75	3.50	7.875	7.625	7.125	4.75	5.00	5.50	8.50	6.50	8.125
	7.75	9.00	2.625	10.00	1.375	5.50	4.00	9.00	7.25	10.50	3.625	6.75	11.25	7.25	6.625	9.75
	4.375	9.75	3.25	7.00	5.375	9.00	3.50	7.25	3.50	8.00	4.50	5.875	6.00	8.75	7.00	9.00
	3.375	7.50	2.625	9.00	4.00	7.50	4.00	10.125	3.375	8.125	3.375	5.125	7.25	9.75	5.00	8.00
	2.50	9.875	3.50	8.875	3.75	9.50	3.75	8.50	3.50	7.75	4.00	6.00	5.00	9.50	6.25	8.00
	3.50	6.125	3.375	5.125	2.25	8.25	1.75	4.50	4.50	8.125	3.625	6.00	5.875	8.50	4.375	7.125
	3.00	7.00	2.50	8.00	2.375	6.25	4.00	9.00	4.00	7.50	3.875	4.50	5.875	7.875	6.625	10.00
	3.625	8.125	2.50	8.875	3.375	8.50	1.00	6.75	4.50	7.25	8.25	8.875	6.75	9.25	5.50	8.75
	2.75	4.25	3.00	8.75	3.25	8.00	2.375	8.00	5.50	5.00	3.25	6.00	4.25	8.75	9.00	9.75
	2.75	3.875	3.00	7.50	2.00	5.75	1.50	8.00	2.625	8.00	4.625	7.125	7.25	7.125	4.00	9.00
	2.00	4.50	3.375	8.75	2.50	7.25	5.375	9.875	3.75	8.00	3.75	5.75	5.375	7.75	6.625	1.00
	3.625	7.00	4.25	9.25	5.50	10.75	2.50	9.75	9.50	7.875	4.125	6.75	9.25	8.50	6.375	8.25
	2.50	4.50	3.375	5.125	4.50	8.50	2.00	7.25	3.375	6.50	5.50	8.00	6.375	8.00	5.00	7.75
	2.875	7.00	5.75	10.50	3.75	9.50	2.75	8.875	4.50	2.50	4.25	6.25	7.25	8.00	2.75	9.00
	3.50	6.00	3.00	9.25	2.375	7.75	3.00	7.75	3.75	7.00	4.625	8.125	5.75	9.50	5.00	6.25
Totals	78.125	173.25	84.375	191.00	83.25	209.25	75.625	212.375	120.50	197.625	120.75	169.50	140.75	210.875	147.00	207.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	7.75	119.62	10.50	52.50	6.25	96.47	10.75	53.75	11.50	177.49	10.75	53.75	11.25	173.61	10.00	50.00
Lowest	2.00	30.87	4.125	20.625	1.00	15.44	5.00	25.00	2.625	40.52	2.50	12.50	3.00	46.30	6.00	30.00
Average	3.25	50.16	7.345	36.725	3.178	49.05	8.433	42.165	4.825	74.47	7.313	36.715	5.750	88.50	8.308	41.75
Tests above average	25		26		25		30		15		26		24		26	
Tests below average	25		24		25		20		35		24		26		24	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

WISCONSIN.

EWES, 3 TO 5 YEARS OLD.

Catalogue number of samples..	718.				719.				720.				721.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	12.00	8.25	3.50	7.00	7.50	8.75	3.00	6.00	7.00	7.50	6.00	7.75	3.50	7.25	4.75	1.875
	4.50	9.75	4.00	10.25	6.50	7.00	8.00	7.00	3.75	8.50	6.75	11.00	5.00	5.00	9.625	5.50
	9.00	6.75	9.00	8.25	6.50	7.125	4.00	5.00	4.00	8.50	6.25	8.00	5.75	3.875	8.00	8.625
	10.00	9.00	5.25	7.00	3.50	7.50	4.25	6.125	3.25	4.75	4.25	9.00	5.50	6.00	8.25	6.00
	6.00	7.25	3.00	7.50	2.00	4.875	5.50	7.75	4.00	8.00	3.00	3.00	4.25	4.875	4.875	6.875
	9.00	9.00	3.25	6.00	3.50	4.75	3.875	6.25	5.25	8.00	7.00	7.50	4.625	6.00	6.50	6.75
	8.00	7.00	6.50	5.00	5.50	6.125	3.50	5.25	6.25	7.75	4.00	9.50	6.50	8.00	6.125	7.00
	4.50	7.00	5.00	10.25	3.875	7.25	3.50	3.00	8.25	9.50	4.75	9.00	14.00	8.125	4.75	3.00
	3.50	8.75	3.50	10.00	4.00	3.25	5.75	7.75	6.25	8.00	4.75	10.00	6.00	8.00	4.50	2.25
	3.50	9.00	6.00	5.75	5.50	8.00	6.25	6.00	4.00	8.00	4.50	9.00	5.50	6.00	8.75	8.125
	11.25	8.25	5.00	10.00	7.75	7.00	4.625	6.00	5.25	9.25	4.00	2.25	4.625	3.25	5.25	4.25
	4.00	7.00	4.00	8.25	2.125	3.625	4.25	4.75	5.00	6.25	4.00	9.00	9.25	6.25	4.50	3.00
	9.00	6.75	9.00	7.50	3.35	7.50	3.875	6.25	8.00	7.75	4.00	8.25	4.875	3.50	5.00	6.25
	6.50	8.50	6.75	10.00	4.75	6.75	7.375	8.125	6.50	9.00	4.00	9.75	4.375	3.875	4.625	8.00
	3.50	8.00	5.50	9.00	3.125	3.375	7.00	8.00	5.00	6.50	5.75	9.50	3.625	6.50	4.875	8.00
	10.50	8.25	6.00	8.50	4.25	2.50	2.50	3.00	8.75	9.25	7.00	8.00	5.75	8.00	6.625	7.25
	5.00	9.25	8.00	7.00	2.375	8.25	4.625	3.75	4.00	7.75	10.00	7.00	5.50	6.75	9.00	5.75
	9.25	7.00	4.00	6.75	5.50	7.25	5.00	6.25	4.00	6.75	5.00	7.00	5.375	6.50	3.00	1.875
	10.50	8.00	4.00	9.00	3.375	6.25	5.50	6.00	8.75	9.00	4.00	8.00	5.50	4.125	8.375	5.875
	4.50	7.00	5.00	6.00	5.625	7.00	3.50	3.00	4.00	9.50	7.50	8.50	4.375	8.50	3.50	3.125
	4.00	9.50	8.00	8.50	4.25	6.875	3.00	7.875	4.00	7.75	4.75	8.50	6.75	7.75	6.75	7.375
	3.75	7.00	4.00	7.50	6.25	7.125	8.25	7.50	5.00	6.50	6.75	6.50	6.625	8.25	5.00	6.875
	7.50	9.75	3.00	2.75	4.25	6.25	5.50	7.125	10.50	7.00	7.25	9.00	7.125	6.00	4.00	3.50
	13.00	9.00	4.00	10.50	5.50	5.00	5.75	7.00	3.00	5.00	4.00	9.00	5.00	8.00	7.25	6.125
	3.50	5.50	4.00	9.00	4.25	8.00	5.00	7.125	4.75	9.75	5.25	7.50	6.25	6.125	4.75	3.875
Totals	175.75	200.50	129.25	195.25	115.50	155.375	125.375	151.875	137.50	195.50	134.50	203.00	146.00	158.125	148.625	137.125

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	13.00	200.65	10.50	52.50	8.25	127.34	8.75	43.75	10.50	162.06	11.00	55.00	14.00	216.084	8.625	43.125
Lowest	3.00	46.30	2.75	13.75	2.125	32.80	2.50	12.50	3.00	46.30	3.00	15.00	3.00	46.30	1.875	9.375
Average	6.10	94.15	7.915	39.575	4.818	74.36	6.145	30.725	5.44	84.12	7.97	39.85	5.893	90.96	5.905	29.525
Tests above average.....	19		28		23		29		18		30		19		31	
Tests below average.....	31		12		27		21		32		20		31		19	

WISCONSIN.

EWES, 3 TO 5 YEARS OLD.

Catalogue number of samples..	722.				723.				770.				771.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	7.25	10.25	4.625	7.125	4.75	8.25	6.00	6.00	3.50	7.25	7.25	6.00	4.00	7.00	5.875	8.00
	6.625	8.50	7.625	9.50	2.50	2.00	8.25	9.75	2.75	7.75	3.00	7.00	5.00	8.75	5.00	9.00
	7.00	10.25	4.50	5.25	7.00	7.00	3.25	9.00	3.00	7.25	1.50	8.25	3.375	7.75	3.625	8.00
	4.625	5.75	7.75	8.875	4.50	7.50	4.00	10.00	3.75	3.75	4.25	7.50	3.875	9.125	12.375	8.875
	6.25	6.00	8.50	8.50	3.75	9.00	3.50	6.50	4.00	6.25	3.50	9.25	9.875	8.75	3.75	8.125
	6.50	7.875	6.00	9.50	5.00	8.50	4.25	10.25	6.50	8.75	3.75	9.00	4.00	8.50	5.125	7.875
	5.625	9.25	9.00	10.75	4.75	8.50	3.00	9.00	4.50	6.50	3.25	8.50	5.00	8.25	4.50	7.125
	6.625	8.50	6.50	10.75	2.50	6.00	3.25	10.00	4.75	8.00	4.00	8.75	7.125	8.00	6.25	8.50
	4.00	7.25	8.625	7.25	4.00	9.75	6.50	9.75	5.75	7.00	3.625	8.25	3.875	8.75	3.625	7.00
	5.25	8.125	10.25	11.50	4.00	9.00	4.00	9.50	6.50	9.00	3.25	8.00	5.00	7.25	4.625	7.00
	6.25	9.25	8.875	10.00	4.00	9.75	4.50	8.00	6.50	6.00	2.75	7.75	4.625	8.00	5.50	7.00
	7.50	8.25	5.50	7.00	3.25	7.25	4.00	7.00	3.00	4.25	2.50	6.75	12.25	6.75	4.625	7.50
	6.625	9.25	6.25	9.25	4.00	7.50	4.25	8.25	5.00	6.00	4.625	10.00	13.00	8.00	3.125	8.00
	4.25	6.75	8.25	8.75	4.25	9.00	6.75	9.00	5.75	8.75	3.875	8.75	3.125	7.00	5.875	8.75
	5.50	6.50	6.50	9.875	3.50	6.50	4.00	9.00	2.75	4.00	3.50	6.00	3.75	8.00	5.625	9.25
	6.50	9.25	11.625	11.00	4.00	9.75	3.50	8.50	4.25	6.00	4.00	7.00	7.50	7.50	6.625	7.00
	9.25	7.25	7.00	9.75	4.50	9.00	5.25	9.00	2.50	3.50	4.50	9.00	2.625	4.25	8.00	8.00
	7.00	8.25	7.625	9.75	4.75	8.25	4.00	8.25	5.75	6.50	2.25	5.75	5.00	7.50	4.50	9.75
	7.375	6.00	6.25	7.25	7.50	8.50	3.50	7.25	5.50	7.25	2.75	6.25	4.875	8.00	2.875	8.00
	7.625	11.00	7.875	11.00	5.25	8.00	4.50	8.00	5.50	7.00	2.00	6.50	5.75	8.375	5.00	7.25
	5.50	5.50	8.00	9.75	5.25	6.00	3.75	7.25	4.25	8.00	4.00	7.75	6.625	7.00	3.625	8.25
	4.50	6.50	7.00	8.75	3.50	10.00	3.25	8.50	5.25	6.25	3.25	6.00	4.00	8.00	6.75	8.00
	3.75	5.625	7.375	10.50	6.50	8.50	6.00	9.00	5.50	7.00	6.25	8.50	3.00	7.00	3.00	6.875
	5.375	8.00	8.25	9.25	6.50	10.00	3.50	8.25	3.50	5.75	3.00	6.25	3.00	7.00	4.50	8.75
	8.25	9.00	3.75	6.00	4.00	8.25	3.00	7.50	3.75	7.50	3.25	9.00	5.00	7.00	9.375	8.25
Totals	145.00	197.625	184.25	226.875	113.50	201.75	109.75	212.00	113.75	165.25	92.875	191.75	135.25	191.50	133.75	200.125

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	11.625	179.43	11.50	57.50	8.25	127.336	10.00	50.00	7.25	111.90	10.00	50.00	13.00	200.65	9.75	48.75
Lowest	3.75	57.88	5.25	26.25	2.50	38.580	2.00	10.00	2.00	30.87	3.50	17.50	2.625	40.52	4.25	21.25
Average	6.585	101.64	8.49	42.45	4.465	68.915	8.275	41.375	4.13	63.74	7.14	35.70	5.38	83.04	7.83	39.15
Tests above average.....	29		28		20		26		21		25		17		30	
Tests below average.....	21		22		30		24		29		25		33		20	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

	WISCONSIN.															
	EWES, 3 TO 5 YEARS OLD.												OLD EWES.			
Catalogue number of samples	784.				785.				786.				714.			
Actual measurement in grams and millimeters.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	2.875	1.25	4.00	8.25	6.00	7.50	7.00	8.00	8.00	7.50	10.00	7.50	3.25	8.00	4.25	5.75
	4.375	3.50	6.625	8.00	4.25	7.50	3.00	6.00	7.50	8.25	9.50	9.00	4.125	10.00	5.125	6.00
	4.375	4.75	3.125	5.00	3.50	4.50	5.00	9.00	9.00	8.00	4.00	6.25	3.75	8.375	2.375	6.00
	9.50	7.00	4.75	8.00	3.75	7.00	3.75	2.00	4.00	7.50	4.00	8.00	1.50	7.875	2.875	7.125
	2.00	2.50	3.625	7.75	4.25	5.25	3.75	8.00	10.00	6.50	3.75	8.00	3.50	7.125	3.00	7.125
	4.625	7.75	4.00	6.25	5.00	6.00	5.00	7.50	4.25	7.50	3.00	2.50	5.75	8.00	4.375	6.125
	4.50	5.00	4.00	8.75	3.75	6.25	8.00	8.75	5.50	5.00	7.50	8.00	3.75	7.25	4.00	8.00
	10.50	6.75	5.00	10.00	6.00	8.00	4.00	5.00	4.00	7.75	4.00	8.25	4.25	8.25	4.25	6.875
	3.625	7.125	4.375	8.00	6.00	6.75	7.50	6.25	6.00	7.50	4.75	8.50	6.00	7.25	2.625	6.875
	5.625	5.00	5.375	8.125	6.00	5.75	7.00	7.50	5.00	9.25	4.25	6.00	5.875	9.75	3.75	7.875
	4.375	6.75	4.375	7.75	6.75	6.50	9.25	8.50	4.75	2.00	5.25	8.75	2.25	4.50	4.00	7.75
	3.625	8.00	3.625	9.125	4.25	10.00	6.75	9.75	4.50	9.25	3.50	7.25	2.125	6.50	4.625	8.00
	3.375	7.125	6.00	8.125	4.00	9.25	4.25	8.00	6.50	8.50	5.00	10.00	2.25	4.50	5.625	6.50
	5.00	6.25	4.00	4.125	6.25	7.75	4.00	8.25	4.00	6.00	11.00	9.00	7.25	9.00	3.25	7.125
	3.625	3.25	5.00	8.50	3.75	7.25	5.75	8.25	6.25	9.00	6.00	9.00	3.125	7.50	2.50	3.00
	5.25	6.25	4.00	6.25	2.00	9.00	6.50	8.00	4.00	7.75	3.75	6.50	3.25	8.00	2.625	3.875
	2.25	4.875	4.625	8.25	6.25	7.75	4.00	5.75	6.25	8.75	4.25	9.50	3.875	7.50	3.125	7.25
	3.50	6.75	2.375	2.50	3.50	5.25	4.75	7.75	10.00	8.00	4.00	5.00	5.25	8.00	2.75	8.00
	4.00	7.25	4.00	6.00	6.25	8.00	5.00	8.00	4.00	7.00	5.75	9.75	2.25	8.125	4.375	8.00
	7.625	6.00	2.50	6.50	7.00	7.50	6.75	6.00	3.50	3.00	10.25	8.50	2.75	8.00	2.75	6.50
	5.25	7.125	4.625	4.75	5.00	8.25	7.50	8.75	5.00	10.00	3.75	8.25	6.875	8.25	4.625	8.00
	4.625	7.00	4.00	8.125	3.50	3.25	10.25	7.75	5.00	7.25	3.25	5.25	2.25	7.00	4.00	2.875
	5.625	6.25	3.00	7.75	7.50	6.50	7.00	8.25	3.75	6.75	4.75	9.25	3.75	8.00	3.125	7.125
	3.375	3.25	4.25	5.25	4.50	8.50	7.00	8.50	6.00	9.00	5.00	9.75	5.50	7.00	4.50	8.125
	4.00	5.75	2.25	9.25	3.50	5.75	4.25	8.00	9.75	9.00	4.00	8.00	4.25	8.75	6.50	9.00
Totals	135.00	142.50	105.00	180.375	133.50	175.00	143.00	191.50	146.50	186.00	136.25	195.75	99.00	192.50	95.00	169.375

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	10.50	162.06	10.00	50.00	10.25	158.20	10.00	50.00	11.00	169.78	10.00	50.00	7.25	111.901	10.00	50.00
Lowest	2.00	30.869	1.25	6.25	3.00	46.30	2.00	10.00	3.00	46.304	2.00	10.00	1.50	23.152	3.50	17.50
Average	4.80	74.08	6.46	32.30	5.53	85.35	7.33	36.65	5.34	82.42	7.64	38.20	3.88	59.886	7.438	37.19
Tests above average	12		28		22		32		19		20		22		24	
Tests below average	20		22		28		18		31		30		28		26	

	WISCONSIN.				MINNESOTA.											
	OLD EWES.				RAMS, 2 TO 3 YEARS OLD.											
Catalogue number of samples	715.				502.				503.				504.			
Actual measurement in grams and millimeters.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	4.00	0.00	4.00	9.00	4.75	7.25	6.75	8.00	8.125	7.00	3.00	6.00	2.75	1.50	6.00	9.00
	3.00	2.75	4.50	8.50	5.75	2.00	6.50	7.75	5.25	6.625	6.625	6.125	7.25	10.00	3.75	10.00
	2.25	3.00	5.00	8.25	4.50	7.00	7.25	4.25	11.50	8.00	8.25	6.00	5.75	10.25	5.50	10.25
	3.75	0.75	6.75	3.00	8.00	6.00	6.25	10.00	5.00	1.00	4.50	1.00	6.00	10.50	6.50	9.00
	3.75	5.50	3.50	9.00	5.00	9.00	6.50	9.25	4.625	7.50	8.625	8.25	17.75	10.00	8.00	9.00
	3.75	9.25	3.00	6.00	5.00	8.25	8.25	8.75	4.75	5.25	7.50	6.00	5.75	9.00	5.00	9.75
	6.00	9.00	4.00	9.50	7.00	7.50	3.50	4.00	5.875	3.00	3.25	2.00	6.75	9.25	5.75	9.00
	4.50	6.50	3.00	5.00	4.25	9.00	10.25	7.50	5.375	6.00	6.00	2.50	6.75	9.00	4.00	8.50
	3.00	8.50	5.50	7.25	6.25	4.25	5.50	4.75	7.375	4.875	5.50	4.75	6.25	7.00	5.50	9.00
	5.50	9.00	6.50	9.50	5.50	6.00	9.50	7.25	4.625	6.00	5.625	7.00	5.00	9.75	3.50	9.00
	8.00	5.75	7.25	8.75	5.50	6.50	4.25	4.00	4.50	7.75	6.50	7.75	4.50	6.50	4.75	9.75
	8.00	8.50	4.00	6.75	7.75	4.75	6.50	8.00	3.625	6.00	5.00	5.25	4.00	8.00	4.50	10.50
	7.25	6.75	7.25	10.00	4.75	8.00	4.25	6.50	6.00	5.75	4.875	5.25	9.25	9.50	7.00	10.50
	4.00	7.75	3.00	4.75	8.25	9.00	5.00	9.25	10.50	7.00	4.50	5.00	4.25	11.00	5.00	9.00
	4.75	5.25	4.00	3.00	5.25	8.00	6.00	5.75	6.375	3.25	9.375	6.00	5.25	10.25	5.00	10.75
	3.00	8.50	3.75	6.25	4.75	9.75	7.25	9.00	9.00	4.75	7.75	7.75	3.25	8.50	4.25	7.75
	3.00	2.00	7.00	7.00	8.50	10.25	6.50	3.75	5.625	6.00	3.625	7.25	6.00	9.75	4.75	9.25
	6.50	8.00	4.00	7.00	8.50	7.00	7.00	8.00	5.00	7.00	6.25	7.25	5.25	8.25	6.25	9.50
	11.75	11.00	3.00	6.75	4.75	5.25	6.00	7.00	7.00	2.00	5.00	6.50	10.25	10.00	5.25	10.75
	6.00	9.00	4.00	3.00	11.00	9.75	4.00	5.75	4.75	6.00	8.125	7.00	4.25	10.50	6.25	9.75
	5.00	9.00	7.25	3.00	5.25	5.00	5.00	5.00	5.50	6.00	4.875	7.00	4.50	10.25	4.00	9.75
	3.75	6.00	6.00	5.00	7.25	10.25	7.75	9.00	5.25	6.00	4.00	6.75	7.00	11.00	3.50	9.00
	3.50	2.50	4.25	6.50	5.00	9.00	8.00	7.25	4.125	5.00	6.50	7.50	4.75	9.25	9.00	11.00
	7.25	8.25	4.00	6.75	7.25	8.125	8.50	9.75	5.25	7.75	13.875	9.00	4.00	8.00	5.25	10.00
	4.75	10.00	4.00	3.50	7.50	9.50	6.50	10.50	5.375	6.25	5.375	5.75	5.00	9.50	5.25	9.75
Totals	126.00	171.25	118.50	165.00	163.25	186.50	162.75	180.00	157.375	139.75	154.50	150.625	131.00	224.50	130.50	236.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	11.75	181.357	11.00	55.00	11.00	169.78	10.50	52.50	16.50	254.67	9.00	45.00	17.75	273.96	11.00	55.00
Lowest	2.25	34.728	2.50	12.50	3.50	54.02	2.00	10.00	3.00	46.30	1.00	5.00	2.75	42.44	1.50	7.50
Average	4.89	75.475	6.725	33.625	6.52	100.63	7.33	36.65	6.24	96.31	5.81	29.05	5.79	89.37	9.22	46.10
Tests above average	18		28		22		37		19		13		18		31	
Tests below average	32		22		28		13		31		17		21		19	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

MINNESOTA.

RAMS, 2 TO 3 YEARS OLD.

Catalogue number of samples..	505.				506.				507.				508.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	4.50	5.00	5.875	8.75	6.75	7.00	5.00	6.00	5.75	6.00	6.50	7.00	6.625	7.00	5.00	5.25
	6.125	7.875	5.25	9.25	11.00	7.50	6.75	8.00	6.75	8.00	11.25	6.50	3.375	5.00	5.375	6.75
	4.25	6.50	4.00	5.00	8.75	7.25	14.00	7.75	4.00	7.75	5.375	7.00	4.00	4.25	5.375	7.75
	3.75	5.875	7.00	6.25	7.00	9.00	5.00	4.25	5.00	4.25	8.25	6.00	5.625	6.25	4.625	5.25
	5.00	5.25	4.875	9.00	5.00	7.00	10.75	8.00	10.75	8.00	5.625	3.25	5.00	8.00	7.375	6.50
	6.00	8.75	7.00	9.875	5.25	7.50	3.25	5.25	3.25	5.25	5.75	6.50	7.375	7.50	5.25	5.75
	8.00	4.25	6.25	7.75	5.50	9.00	5.50	6.75	5.50	6.75	7.00	7.875	5.25	7.00	3.625	5.75
	5.50	2.25	3.50	7.25	4.75	6.00	7.25	7.00	7.25	7.00	10.50	7.00	4.375	1.75	4.25	5.75
	5.00	7.00	5.875	7.25	9.75	7.00	11.00	9.00	11.00	9.00	9.00	8.00	5.50	4.75	5.75	6.75
	6.25	3.75	4.00	8.00	4.00	7.00	4.75	7.50	4.75	7.50	6.75	7.00	5.50	8.00	6.375	7.50
	4.50	6.00	4.25	8.25	6.00	9.00	4.75	4.50	4.75	4.50	6.00	7.00	6.375	5.25	6.375	1.00
	5.00	6.00	4.75	7.25	4.75	4.50	7.25	7.00	7.25	7.00	5.625	4.875	6.25	6.00	6.00	2.50
	4.25	6.50	5.00	8.50	6.00	8.50	3.75	6.00	3.75	6.00	5.25	5.00	5.00	5.00	6.00	7.25
	5.00	5.25	6.25	9.00	5.00	7.00	5.25	8.00	6.25	8.00	12.625	8.00	7.50	6.25	5.50	6.00
	7.25	8.25	4.375	6.00	5.00	7.50	6.25	6.50	6.25	6.50	6.00	6.00	6.375	7.00	6.00	5.25
	4.25	9.00	4.75	4.875	4.25	4.25	4.00	5.50	4.00	5.50	7.00	6.00	4.75	6.75	6.625	5.50
	4.00	8.00	6.50	9.00	3.25	6.50	4.00	8.75	4.00	8.75	4.00	6.00	2.75	4.00	4.25	5.75
	5.00	7.875	6.00	8.00	3.75	3.00	5.50	8.50	5.50	8.50	11.25	7.25	4.50	3.75	3.375	3.75
	3.50	9.00	5.50	7.75	9.50	8.50	3.00	6.00	3.00	6.00	7.125	5.50	6.50	6.50	6.50	8.75
	4.25	7.00	4.75	7.25	6.00	2.50	6.50	6.00	6.50	6.00	7.75	6.00	7.00	6.25	3.50	2.75
	5.25	8.75	7.00	4.75	6.25	6.25	7.00	8.50	7.00	8.50	7.75	7.00	5.375	5.25	5.50	6.00
	5.00	4.25	5.75	7.25	6.00	5.75	5.00	5.25	5.00	5.25	6.625	7.00	3.00	2.00	3.625	6.00
	4.00	5.00	4.75	4.00	4.00	7.00	7.25	8.50	7.25	8.50	10.625	7.50	5.50	6.75	2.625	3.50
	4.25	7.50	4.00	5.50	7.00	7.50	2.75	8.00	2.75	8.00	8.00	8.00	4.625	2.75	3.625	2.75
	5.25	6.25	4.25	4.00	6.75	4.75	3.00	5.75	3.00	5.75	10.25	8.125	8.625	7.75	3.75	5.25
Totals	125.125	161.125	131.50	179.75	151.25	166.75	149.50	172.25	149.50	172.25	191.875	165.375	136.75	140.75	126.25	135.00

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	8.00	123.48	9.875	49.375	14.00	216.08	9.00	45.00	12.625	194.86	8.50	42.50	8.625	133.123	8.00	40.00
Lowest	3.50	54.02	2.25	11.25	2.75	42.44	2.50	12.50	4.00	61.74	3.25	16.25	2.625	40.52	1.00	5.00
Average	5.13	79.18	6.82	34.10	6.15	94.92	6.78	33.90	6.33	97.70	6.83	34.15	5.26	81.19	5.52	22.60
Tests above average	20		28		20		29		32		34		27		28	
Tests below average	30		2		30		21		18		16		23		22	

MINNESOTA.

RAMS, 2 TO 3 YEARS OLD.

Catalogue number of samples..	509.				510.				511.				512.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	5.25	9.75	5.00	7.00	2.75	6.00	3.00	5.50	4.75	6.75	13.00	7.00	4.50	9.50	12.25	8.00
	5.00	8.50	3.50	9.00	4.75	9.00	3.25	9.50	4.00	4.875	5.00	5.00	3.75	5.00	6.375	9.75
	4.50	9.75	3.75	9.00	4.75	9.00	3.00	7.25	5.25	7.75	8.00	6.75	7.25	8.00	4.50	10.50
	4.00	5.25	5.25	10.00	4.75	6.75	4.50	9.75	2.75	7.00	9.00	7.25	3.875	6.00	2.00	9.75
	4.25	7.75	4.25	10.00	6.00	9.75	6.00	8.75	4.25	7.50	7.25	9.00	7.00	9.00	7.00	9.50
	3.25	8.75	5.25	9.25	4.50	7.50	4.75	8.50	6.00	6.875	6.75	7.25	5.00	8.75	6.00	9.00
	6.00	7.75	4.00	9.00	4.00	8.00	6.25	9.00	7.50	6.50	6.00	8.00	8.00	10.00	5.00	8.75
	4.00	6.25	4.25	10.00	6.75	10.00	7.50	5.25	6.00	5.875	7.00	7.75	4.25	7.75	9.25	9.75
	4.00	9.00	3.50	6.75	3.75	8.75	5.75	7.50	5.00	9.00	5.00	6.50	5.00	9.75	4.50	7.00
	5.50	10.00	4.00	9.00	6.75	8.00	3.75	6.00	4.00	6.50	7.00	8.25	8.50	9.00	8.75	8.25
	5.00	9.50	4.25	10.00	5.75	7.75	3.75	8.75	8.75	8.75	4.75	9.25	5.625	10.00	9.25	9.00
	3.75	9.50	3.00	5.75	5.25	9.00	3.75	7.00	7.25	7.00	6.00	9.00	7.25	8.75	5.50	9.00
	5.00	9.75	4.25	7.00	9.75	10.75	4.75	2.00	3.25	6.00	6.00	8.00	5.75	8.125	3.75	7.75
	5.25	7.75	4.25	6.00	5.75	8.50	5.50	8.25	5.25	7.00	5.00	8.25	4.50	10.00	10.25	10.00
	5.00	9.75	2.75	8.00	6.75	8.00	4.25	8.25	6.875	7.875	6.50	7.50	7.75	10.00	4.25	7.875
	4.25	8.00	5.50	8.75	4.50	8.50	4.00	5.75	10.25	8.875	9.25	6.75	6.25	9.00	9.75	6.75
	5.50	8.25	5.00	9.00	3.75	8.25	6.25	8.50	9.50	5.00	5.75	9.00	5.875	9.75	5.375	6.125
	6.25	9.00	2.75	7.75	4.75	8.50	3.25	9.75	3.25	5.25	6.75	7.875	4.875	6.75	8.625	8.875
	4.00	10.00	5.75	7.75	6.50	9.00	4.50	7.00	4.875	5.50	6.00	4.50	6.375	10.50	8.50	9.875
	3.25	10.00	2.75	6.00	5.25	7.00	6.75	8.75	3.50	5.00	5.00	6.75	4.50	9.875	5.75	7.875
	5.50	10.00	4.00	7.50	10.00	8.25	4.75	9.75	4.25	6.00	7.875	8.00	6.25	8.50	6.00	8.75
	4.25	10.00	3.50	10.25	4.75	7.00	4.25	9.00	7.50	7.25	8.75	6.50	7.00	8.00	4.50	7.625
	4.75	9.00	4.25	9.75	4.00	9.00	7.00	6.50	7.00	7.75	6.00	9.00	5.75	8.75	9.00	9.50
	5.50	9.75	5.25	10.50	4.00	9.75	5.75	9.75	10.00	7.00	5.75	6.75	5.50	8.75	6.25	7.50
	4.75	9.25	4.00	9.00	4.50	9.00	5.50	8.25	7.00	6.75	5.00	9.75	5.25	9.00	7.50	7.00
Totals	117.25	222.75	104.00	212.00	134.00	211.25	121.75	194.25	148.00	169.625	168.375	189.625	145.625	218.50	176.875	213.25

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	6.25	96.47	10.50	52.50	10.00	154.35	10.25	51.25	13.00	200.65	9.75	48.75	12.25	189.07	10.50	52.50
Lowest	2.75	42.44	5.25	26.25	2.75	42.44	2.00	10.00	2.75	42.44	4.50	22.50	3.75	57.88	6.00	30.00
Average	4.43	68.37	8.70	43.50	5.12	79.03	8.11	40.55	6.33	97.70	7.19	35.95	6.45	99.55	8.63	43.15
Tests above average	22		33		21		31		22		24		19		30	
Tests below average	28		18		29		19		8		26		31		20	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

MINNESOTA.

RAMS, 2 TO 3 YEARS OLD.

Catalogue number of samples..	513.				514.				515.				516.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	5.375	7.00	5.00	6.00	5.25	7.00	6.25	7.875	7.75	8.50	4.00	5.50	4.00	4.00	6.00	7.50
	5.625	5.75	5.50	8.00	9.00	6.00	7.00	7.125	5.50	8.00	6.00	7.50	6.00	7.00	5.25	7.25
	7.625	7.25	5.375	6.75	8.625	7.75	9.00	7.00	8.00	8.75	8.50	7.50	4.00	6.00	5.75	7.25
	3.50	4.00	5.625	7.125	9.00	9.00	6.50	8.125	11.75	9.25	4.50	8.00	4.50	7.00	15.00	8.25
	4.375	5.50	10.375	7.25	5.375	5.00	7.875	8.00	9.00	8.25	3.00	8.00	6.25	6.00	9.25	8.50
	5.25	6.25	2.625	5.25	10.00	9.00	7.50	8.50	11.00	8.75	4.00	6.25	5.50	8.00	7.00	9.00
	8.375	7.875	5.625	7.75	12.00	8.125	5.25	7.25	6.00	10.00	5.00	5.75	4.75	9.75	3.75	7.50
	7.00	7.75	6.625	6.75	4.50	7.00	3.625	7.25	5.50	8.00	6.25	4.25	6.00	8.00	4.00	7.25
	5.375	7.25	6.000	7.00	4.625	5.00	6.25	8.75	7.00	6.00	9.75	8.75	6.00	7.25	10.00	8.25
	3.625	6.00	7.75	7.25	4.875	7.00	4.125	7.875	4.25	7.75	3.25	5.00	4.25	6.25	6.00	6.50
	4.625	4.00	7.50	6.25	6.00	8.125	5.375	7.25	10.00	9.75	10.00	10.00	4.00	5.00	4.75	7.75
	5.625	6.00	6.375	7.125	10.25	8.75	10.75	6.25	7.50	8.25	6.50	8.25	3.00	3.00	6.25	7.50
	4.375	6.25	5.625	8.25	6.375	7.50	6.50	6.00	6.75	8.00	7.00	9.50	4.50	7.50	6.25	6.00
	9.625	9.00	4.375	5.75	5.50	7.875	5.625	8.00	4.00	7.75	10.00	8.75	9.25	6.75	14.00	8.00
	8.375	9.25	3.625	3.25	4.25	8.00	4.625	8.00	8.75	9.00	4.00	9.25	10.25	6.75	2.25	7.75
	5.000	7.50	4.75	5.50	8.875	7.00	5.00	7.125	13.50	8.50	4.00	8.00	6.00	9.00	4.00	6.25
	5.375	5.25	4.00	6.00	4.375	7.00	5.625	8.00	6.25	9.00	5.00	5.25	5.75	8.00	4.50	8.25
	13.625	8.00	4.625	7.50	7.25	7.00	7.00	10.00	9.00	8.50	11.50	8.00	7.00	10.00	6.00	7.00
	6.25	7.25	4.25	3.25	8.25	8.25	4.375	6.875	3.75	8.00	5.75	9.00	6.00	5.00	4.00	7.00
	4.50	7.50	3.625	2.00	5.00	7.00	6.50	6.875	7.00	8.00	9.25	10.25	4.50	5.50	5.75	8.25
	4.375	7.00	4.375	5.25	6.25	8.00	5.50	8.125	8.00	9.00	4.25	7.50	7.00	6.25	6.75	8.25
	5.625	8.00	4.375	3.75	5.00	8.00	5.00	5.00	6.00	9.75	10.50	7.50	4.00	10.00	3.75	5.25
	4.375	7.00	4.75	1.50	5.125	9.00	4.50	7.00	6.50	7.00	7.00	8.75	6.00	9.00	6.25	7.00
	5.625	8.50	4.375	3.75	8.625	9.00	5.00	7.00	8.00	9.00	11.00	8.00	3.00	6.00	8.25	5.50
	5.25	6.00	4.00	2.25	10.00	9.00	8.50	8.50	4.75	3.00	7.00	10.00	5.50	9.00	4.00	7.00
Totals	144.875	171.125	131.75	142.50	160.875	182.875	153.25	184.50	186.50	206.25	172.00	194.00	136.50	176.00	162.75	181.75

Recapitulation:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	10.625	163.99	9.25	46.25	10.75	165.92	9.00	45.00	13.50	208.36	13.00	52.50	15.00	231.52	10.00	50.00
Lowest	3.50	54.02	1.50	7.50	5.625	86.85	5.00	25.00	3.25	50.16	3.00	15.00	3.00	46.30	3.00	15.00
Average	5.53	85.35	6.27	31.35	6.30	98.627	7.48	37.40	7.17	110.66	8.08	40.30	5.98	92.32	7.15	35.75
Tests above average	20		26		28		26		21		26		25		25	
Tests below average	30		24		30		24		29		24		25		25	

MINNESOTA.

RAMS, 2 TO 3 YEARS OLD.

Catalogue number of samples..	517.				518.				519.				520.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	6.50	9.50	8.625	7.75	4.625	7.75	3.625	4.875	5.25	8.50	7.75	8.75	4.75	2.75	8.625	6.00
	8.625	8.25	4.00	5.50	5.00	7.75	4.375	8.125	4.75	4.50	6.00	8.25	7.00	7.75	6.75	8.25
	6.00	9.00	8.625	8.875	9.375	6.50	5.00	7.50	6.00	8.00	5.25	8.00	5.50	6.00	9.875	6.25
	8.625	8.125	7.25	8.50	4.375	8.25	8.25	7.25	7.50	8.25	7.25	9.75	6.50	6.875	7.50	7.25
	11.25	9.875	8.00	8.75	5.50	8.50	8.00	7.00	5.50	8.75	7.00	7.25	7.00	5.875	8.75	8.00
	13.50	8.00	5.00	4.00	4.375	5.50	6.75	7.125	5.50	7.00	6.50	9.75	6.375	7.25	4.25	5.00
	5.625	7.125	3.75	6.25	6.375	7.75	2.75	3.875	5.50	6.25	6.00	6.00	5.50	3.75	9.875	9.00
	10.375	9.00	12.25	9.25	4.625	4.50	2.625	5.125	3.00	1.75	6.00	4.50	4.625	6.25	8.00	7.875
	6.875	6.875	10.25	9.00	3.00	3.50	4.375	8.00	5.25	6.50	7.25	8.75	7.00	7.875	7.875	5.75
	9.875	9.00	5.00	5.00	3.50	6.00	3.625	7.00	6.00	8.00	6.00	7.50	12.50	8.00	4.375	6.75
	3.00	7.50	6.50	8.00	5.00	7.25	4.50	6.50	6.25	4.00	6.00	9.00	15.00	8.00	4.50	9.00
	4.50	8.75	6.625	6.75	7.50	8.50	3.625	7.50	6.00	6.50	5.50	8.00	7.00	7.00	11.625	8.375
	6.75	8.875	5.75	9.75	8.50	8.25	4.375	9.00	6.00	8.25	5.00	4.25	9.625	8.00	8.50	7.875
	11.25	8.875	5.25	9.25	6.625	3.25	8.375	8.75	7.50	9.25	4.25	6.00	13.50	6.125	6.50	7.00
	9.00	7.75	6.75	8.50	5.625	5.50	8.375	9.00	5.75	4.75	5.00	5.00	5.75	6.00	9.50	8.00
	15.00	9.00	2.50	4.75	2.375	2.875	4.375	7.75	5.25	9.00	6.50	8.25	14.50	8.75	5.25	7.00
	4.125	6.125	4.50	9.00	3.625	7.125	11.00	8.50	5.50	7.00	8.50	9.50	6.50	7.75	6.75	4.125
	6.25	8.00	12.50	10.125	2.00	1.25	10.375	7.75	6.75	4.50	6.50	7.00	8.50	8.00	6.50	7.00
	8.00	8.50	8.625	9.00	9.375	9.00	6.75	7.50	9.75	8.00	6.00	7.50	3.75	6.50	7.00	6.875
	12.625	9.00	6.25	9.00	6.25	8.00	4.375	6.25	3.50	1.75	5.75	7.25	3.875	5.25	5.25	6.75
	5.25	9.50	5.875	8.75	6.00	7.00	2.75	2.25	6.25	6.25	8.00	9.00	7.375	6.125	7.00	7.75
	6.50	9.75	6.00	7.75	6.00	8.25	4.375	5.00	6.00	6.75	4.50	4.00	8.50	8.00	12.00	8.00
	5.00	7.50	4.38	6.25	2.625	1.50	6.25	8.00	5.75	4.25	7.25	9.50	10.125	8.75	12.00	7.00
	5.625	9.25	9.50	9.50	3.375	5.25	5.25	8.00	5.50	6.00	7.00	9.50	5.375	8.75	6.75	7.75
	7.625	8.00	7.125	9.875	6.875	8.75	3.625	7.25	6.25	7.00	7.00	8.50	4.00	7.00	12.00	7.00
Totals	197.75	211.375	168.25	209.125	135.50	161.875	137.75	174.875	149.25	160.75	157.75	191.25	189.625	172.875	191.00	179.75

Recapitulation:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	15.00	231.52	10.125	50.625	11.00	169.78	9.50	47.50	9.75	150.42	9.50	47.50	15.00	231.52	9.00	45.00
Lowest	2.50	38.56	5.50	27.50	2.375	36.656	1.25	6.25	3.00	46.30	1.75	8.75	3.875	59.80	2.75	13.75
Average	7.19	110.97	8.37	42.05	5.46	84.27	6.93	34.65	6.14	94.77	7.01	35.20	7.78	120.08	7.01	33.70
Tests above average	20		32		21		33		32		26		19		26	
Tests below average	30		18		29		17		30		24		31		24	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

	MINNESOTA.															
	RAMS, 2 TO 3 YEARS OLD.				EWES, 2 TO 3 YEARS OLD.											
Catalogue number of samples..	521.				482.				483.				484.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	6.00	5.00	11.25	8.25	9.00	6.50	6.375	5.25	7.25	7.00	9.25	7.50	5.00	7.75	8.25	6.25
	7.00	3.00	5.75	8.75	4.75	7.00	9.00	6.00	5.25	8.00	7.25	7.25	4.00	4.875	4.00	7.25
	6.00	8.00	8.00	9.75	15.50	8.00	4.00	5.50	3.50	4.50	5.25	6.25	7.50	5.75	6.25	8.00
	5.00	5.50	5.25	6.25	5.00	3.25	9.25	5.50	6.00	9.25	5.25	8.00	7.00	3.00	8.00	7.50
	6.25	1.00	7.00	9.00	5.125	4.00	10.50	7.00	6.00	9.00	3.75	1.50	3.25	7.25	5.00	7.00
	14.25	9.00	9.25	7.75	4.50	4.25	5.00	3.00	5.75	7.25	6.25	4.75	5.25	2.75	5.50	8.00
	6.25	7.75	9.75	5.75	4.625	5.25	5.75	2.60	8.00	1.50	9.00	7.00	4.00	6.75	7.50	3.75
	10.00	9.00	11.00	8.00	4.00	4.75	4.50	3.75	8.00	9.00	12.75	9.00	5.75	6.75	3.75	2.75
	8.50	8.00	5.75	5.00	7.00	6.25	5.00	4.75	4.75	8.00	4.50	6.00	5.00	7.50	4.00	5.00
	10.25	8.00	6.00	9.00	4.75	2.00	6.50	4.00	4.75	8.00	5.25	6.25	5.25	8.25	5.25	2.75
	5.75	6.25	6.75	7.50	4.375	3.125	10.00	7.00	8.00	10.25	8.75	11.00	12.25	9.75	5.25	8.25
	6.50	8.25	7.00	9.25	6.50	6.25	9.50	3.50	5.00	6.75	5.25	6.00	4.25	8.00	4.50	8.75
	7.25	6.75	7.00	4.00	8.50	5.50	5.625	4.00	5.75	9.00	9.75	9.00	4.00	2.75	5.00	8.00
	7.25	7.50	6.25	2.50	7.00	6.25	3.25	3.00	7.50	6.00	5.75	5.25	7.25	2.25	3.75	8.00
	5.50	3.00	8.00	8.00	7.375	7.50	8.50	4.00	5.00	4.75	9.00	7.00	4.875	3.50	6.75	9.00
	7.25	8.50	8.75	7.00	7.25	2.25	8.00	8.00	6.75	9.00	5.00	6.00	6.50	6.875	4.75	6.50
	6.00	1.00	4.25	4.75	4.00	2.875	7.50	5.75	5.00	9.00	7.50	7.00	5.50	1.75	4.25	5.00
	9.75	8.75	5.50	4.00	6.25	4.25	7.75	7.25	8.00	5.00	10.00	7.00	3.00	4.875	4.50	6.00
	6.25	7.50	6.25	5.00	6.00	7.50	5.375	3.25	9.00	7.50	7.25	3.75	6.75	7.375	3.50	6.25
	8.25	9.00	7.50	8.00	4.50	4.875	6.50	5.25	7.50	4.50	7.00	9.75	9.00	7.25	3.75	4.75
	3.25	1.50	10.50	7.50	3.75	4.00	4.00	3.25	7.00	5.75	6.75	4.00	5.25	8.50	4.75	8.25
	8.25	8.75	7.50	7.50	7.25	7.00	4.375	6.00	7.75	6.25	5.50	7.00	6.00	4.00	6.00	6.00
	5.50	6.00	7.00	8.25	7.00	4.50	7.50	7.75	8.50	5.25	3.75	1.75	11.25	10.75	5.75	3.00
	6.00	3.25	8.75	7.75	6.125	6.00	11.25	8.00	5.50	9.00	3.75	6.00	4.50	8.25	5.00	8.00
	7.25	9.00	3.25	1.50	8.00	8.00	5.875	3.00	5.75	8.00	6.00	5.00	4.50	8.50	6.50	8.75
Totals	176.50	159.25	183.25	167.50	158.125	131.125	170.875	125.75	161.25	177.50	169.50	169.00	146.875	155.00	131.50	162.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	14.25	219.94	9.00	45.00	15.50	239.24	8.00	40.00	12.75	196.79	11.00	55.00	12.25	189.07	10.75	53.75
Lowest	3.25	50.16	1.00	5.00	3.25	50.16	2.00	10.00	3.50	54.02	1.50	7.50	3.00	46.30	1.75	87.50
Average	7.08	109.28	6.53	32.65	6.38	101.56	5.12	25.60	6.62	102.18	6.93	34.65	5.57	85.97	6.36	31.80
Tests above average	21		20		21		26		24		27		18		29	
Tests below average	29		30		29		24		26		23		32		21	

	MINNESOTA.															
	EWES, 2 TO 3 YEARS OLD.															
Catalogue number of samples..	485.				486.				487.				488.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	13.25	8.00	8.00	8.00	4.75	3.00	4.625	3.00	4.75	7.00	6.25	3.50	7.125	3.50	6.625	7.00
	9.50	6.75	5.50	7.25	6.50	4.50	7.625	1.75	6.25	8.00	6.00	6.50	77.50	8.00	9.00	7.125
	7.50	6.00	5.75	5.00	4.75	2.25	5.625	3.75	3.75	6.00	5.25	7.75	8.00	6.00	8.125	7.00
	8.00	7.50	6.00	7.00	4.00	5.75	6.50	2.00	6.75	8.50	5.00	7.00	6.75	7.00	6.25	7.875
	6.25	6.00	7.50	9.00	4.625	5.50	4.00	1.00	5.00	7.00	3.25	5.00	9.375	6.00	5.75	6.00
	6.00	5.50	6.00	3.25	5.50	3.75	5.625	7.25	6.50	8.50	7.25	8.75	5.75	4.875	9.00	6.25
	5.00	8.00	6.75	5.00	3.00	12.25	5.375	6.00	4.75	4.75	3.75	6.75	6.75	7.25	5.75	3.50
	10.50	4.75	7.00	9.00	4.50	2.75	4.625	5.50	4.75	8.25	5.25	3.50	9.50	4.00	6.625	7.00
	7.25	5.75	6.25	8.50	5.00	4.25	3.375	2.75	6.75	9.25	5.25	3.75	11.00	6.25	4.375	3.00
	7.00	6.75	4.75	9.00	4.00	1.25	4.625	5.00	4.00	6.00	5.75	8.25	6.50	8.00	4.875	2.50
	7.75	5.75	7.00	9.00	4.75	1.50	5.00	7.00	6.00	2.75	5.00	9.00	8.00	8.125	5.25	3.75
	5.75	8.25	6.00	8.25	3.375	1.25	4.375	4.00	6.00	5.25	4.75	6.75	4.50	5.875	4.125	5.00
	6.00	5.75	6.00	7.00	3.375	1.25	6.625	3.00	5.00	6.00	5.00	8.00	7.00	6.00	7.00	6.50
	5.75	8.25	12.50	9.25	3.00	1.00	5.00	3.50	4.50	8.25	4.75	8.25	7.50	4.00	7.75	3.00
	5.50	5.50	14.00	8.75	7.50	4.00	2.75	1.00	4.75	8.75	6.00	5.75	7.75	6.00	12.75	6.375
	5.00	3.00	6.50	9.75	4.75	7.25	7.375	3.72	6.00	4.75	4.50	1.00	7.25	4.50	8.375	7.50
	4.75	4.50	6.25	8.25	6.00	7.25	4.25	1.25	5.75	7.00	5.00	9.00	5.375	3.00	7.00	5.25
	5.00	8.00	7.50	5.00	5.25	5.50	4.00	4.00	0.00	8.25	6.25	2.75	7.50	7.00	7.00	5.75
	6.50	7.50	6.50	7.25	3.75	4.75	4.375	3.75	5.00	7.25	4.75	3.00	5.75	3.875	9.25	7.00
	9.50	7.00	4.00	6.25	4.375	6.50	3.50	5.50	5.00	8.00	6.00	7.50	7.625	6.50	5.50	2.75
	5.75	7.50	8.00	8.00	3.50	4.75	5.75	2.25	6.00	6.75	4.50	6.00	6.125	7.00	7.50	7.00
	4.00	3.00	5.75	8.00	3.50	5.00	4.75	5.25	3.75	9.25	4.00	3.25	7.00	7.00	4.625	4.75
	15.25	8.75	11.25	9.00	4.625	3.75	5.50	5.00	3.00	1.50	4.75	4.25	6.25	2.25	4.75	5.00
	6.75	8.00	8.00	6.50	4.625	1.25	4.625	7.00	6.00	8.25	3.00	5.00	6.50	7.00	5.875	6.00
	8.25	8.25	6.25	8.25	3.50	5.50	5.00	5.75	6.50	8.00	4.75	6.00	6.375	6.875	13.00	7.75
Totals	181.75	164.00	169.00	189.00	112.50	105.75	124.875	100.00	134.50	173.25	126.00	146.25	188.75	145.875	176.125	130.625

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	15.25	235.38	9.75	48.75	7.625	117.69	12.25	61.25	7.25	111.90	9.25	46.25	17.50	270.11	8.125	40.625
Lowest	4.00	61.75	3.00	15.00	2.75	42.44	1.00	5.00	3.00	46.30	1.00	5.00	4.125	63.67	2.25	11.25
Average	7.02	108.35	7.07	35.35	4.75	73.31	4.11	20.55	5.21	80.41	6.39	31.95	7.30	112.67	5.53	27.65
Tests above average	18		28		18		23		22		28		19		[illegible]	
Tests below average	32		[illegible]		27		27		28		22		31		18	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

MINNESOTA.

EWES, 2 TO 3 YEARS OLD.

Catalogue number of samples..	489.				490.				491.				492.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	5.50	3.00	5.50	5.25	6.50	2.75	5.50	2.75	5.00	6.00	4.25	3.75	4.375	8.00	6.00	7.50
	6.75	9.00	9.75	4.00	5.75	6.75	9.375	4.75	5.25	3.75	8.25	2.50	4.625	7.00	9.00	9.25
	3.25	2.00	11.00	6.25	11.00	5.25	10.00	5.75	6.50	5.50	3.00	7.125	7.50	7.00	7.00	9.00
	9.75	7.50	8.25	6.50	8.625	5.75	8.625	5.25	6.00	6.50	5.00	6.00	9.25	8.00	5.625	6.875
	5.00	8.00	7.00	3.00	5.625	4.75	6.375	7.00	6.50	5.75	5.25	4.25	7.50	10.25	8.00	9.00
	5.75	4.00	6.50	6.25	5.00	4.25	9.00	8.50	5.25	6.50	5.125	3.125	7.25	9.00	8.25	10.00
	4.75	5.25	10.00	7.00	12.375	7.50	9.625	6.00	7.25	7.00	8.25	5.25	8.875	9.00	6.625	7.00
	10.50	7.00	4.50	1.50	4.75	3.00	11.25	6.25	5.75	6.75	4.75	4.50	8.00	8.50	4.50	6.50
	11.75	9.25	7.25	7.50	10.00	3.75	5.50	8.25	5.25	5.75	4.50	7.50	6.50	7.875	7.375	9.25
	7.00	8.25	7.25	5.25	4.50	8.25	6.50	7.25	3.50	5.75	8.00	5.75	4.00	6.50	7.375	7.875
	7.25	6.00	10.50	8.00	5.00	6.00	9.375	6.75	5.25	7.00	3.00	8.25	6.75	9.25	5.00	8.25
	7.50	3.75	5.50	4.00	7.50	6.25	9.50	6.25	3.75	7.25	5.50	6.50	6.25	8.50	5.375	8.00
	6.00	2.00	6.00	5.00	7.375	7.25	8.50	6.75	4.75	3.75	3.50	8.125	5.00	11.25	5.375	7.125
	5.50	5.75	7.25	6.00	4.625	5.25	3.625	7.75	4.00	4.00	5.00	7.00	5.00	6.75	3.75	6.25
	6.00	6.00	8.00	5.75	4.00	7.00	9.25	8.00	4.25	7.75	4.25	8.75	8.75	10.00	6.50	6.25
	7.50	2.50	5.75	6.00	5.25	7.00	7.00	5.00	4.75	5.75	6.25	8.125	4.25	7.00	8.75	9.75
	10.50	6.00	6.25	2.00	11.50	7.75	4.75	2.00	3.875	5.875	4.00	4.25	5.75	9.50	8.00	10.75
	12.50	7.50	8.25	5.00	4.50	6.25	5.75	7.00	3.00	4.25	4.50	8.75	5.75	9.75	5.375	7.25
	6.00	7.00	4.00	5.50	5.625	6.00	4.75	3.00	5.75	7.25	4.75	6.75	9.00	9.75	6.375	7.25
	6.50	6.25	6.75	8.75	6.50	5.50	7.75	3.50	6.25	4.25	4.00	3.50	7.625	10.25	6.625	8.25
	6.25	5.25	8.75	7.75	5.625	3.00	5.375	4.75	6.00	6.00	5.00	7.125	5.00	7.00	4.50	7.875
	10.00	7.50	5.00	7.50	3.75	5.00	6.375	4.00	8.25	8.00	3.25	6.875	5.00	10.25	5.50	8.125
	11.25	8.75	10.25	8.25	4.75	6.50	8.375	6.00	7.00	6.75	6.50	6.00	7.00	10.625	4.50	7.875
	8.00	7.50	7.00	6.00	9.375	7.25	8.25	5.25	3.75	6.00	4.875	7.50	5.00	8.25	6.00	8.75
	6.00	8.00	7.25	5.25	8.375	8.00	6.00	6.75	4.25	6.75	5.00	4.50	7.375	9.875	6.00	8.125
Totals	190.75	156.00	183.00	144.25	161.375	147.00	181.375	150.75	131.375	149.875	125.25	154.75	158.875	219.125	149.875	202.125

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	12.50	192.93	9.25	46.25	12.375	199.00	8.50	42.50	8.25	127.34	8.75	43.75	8.875	136.98	11.25	56.25
Lowest	3.25	50.16	1.50	7.50	3.625	55.95	2.00	10.00	3.00	46.30	2.50	12.50	3.75	57.88	6.25	3.125
Average	7.48	115.45	5.95	29.75	6.86	105.88	5.96	29.80	5.13	79.18	6.08	30.45	6.16	99.08	8.42	42.10
Tests above average	20		29		23		31		21		25		24		23	
Tests below average	30		21		27		19		29		25		26		27	

MINNESOTA.

EWES, 2 TO 3 YEARS OLD.

Catalogue number of samples..	493.				494.				495.				496.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	6.50	9.75	5.75	6.25	3.75	4.00	5.00	4.875	6.625	8.00	5.00	7.00	8.00	5.00	8.00	8.00
	6.25	6.00	4.75	2.75	5.25	7.00	4.50	5.00	2.50	8.00	4.625	8.00	22.00	8.50	4.00	5.25
	5.00	8.00	7.50	7.00	3.50	2.25	4.50	7.00	4.375	4.75	7.625	5.25	8.75	7.50	8.00	8.00
	5.50	3.75	5.25	7.00	6.375	8.00	3.50	7.50	3.375	6.25	4.75	8.50	18.00	9.50	12.00	8.75
	5.75	6.75	5.25	6.75	6.00	5.00	3.375	4.00	5.25	7.75	8.75	8.25	6.00	5.00	13.00	9.00
	9.50	10.00	4.50	5.75	4.50	7.875	4.50	7.125	6.375	7.00	8.875	8.00	13.00	7.50	6.25	9.00
	7.00	8.50	3.50	6.50	5.375	8.00	3.00	4.125	3.375	5.50	5.50	5.50	7.00	5.00	7.25	8.00
	7.75	10.75	5.50	9.00	3.875	6.50	4.125	8.25	4.50	4.25	4.50	3.50	3.00	2.00	6.50	8.50
	4.75	8.50	3.00	1.75	6.375	6.50	6.26	6.00	4.25	5.25	4.625	4.50	7.00	7.00	7.50	8.50
	8.25	4.00	5.50	9.00	4.25	7.75	4.50	6.375	8.625	7.25	5.375	6.25	21.00	8.00	14.75	9.00
	6.75	11.75	5.00	9.00	5.875	2.125	3.70	7.00	5.625	7.00	3.25	7.75	24.50	9.00	5.00	9.25
	4.00	7.50	5.75	3.50	5.00	8.125	2.875	3.00	8.625	8.125	9.625	5.50	5.75	8.25	4.75	8.00
	7.00	7.25	3.25	6.75	3.75	7.25	7.00	5.75	6.075	9.25	6.375	6.75	8.50	8.75	7.75	8.75
	6.25	7.00	4.00	4.25	3.50	6.00	3.125	7.00	2.375	3.00	8.375	4.00	18.50	7.00	10.00	7.50
	6.50	7.00	3.75	9.25	5.625	7.875	3.00	3.00	7.375	9.75	5.375	7.00	13.00	8.00	12.75	8.25
	5.50	8.00	6.00	7.75	7.00	8.00	4.00	6.625	6.625	8.00	8.625	6.00	7.75	7.00	5.75	7.25
	5.00	6.00	6.75	8.00	5.50	6.25	3.875	5.125	4.375	5.50	9.375	6.75	7.00	9.50	8.00	8.00
	8.00	8.25	7.25	8.75	4.00	8.125	3.50	4.00	6.375	8.25	3.75	8.50	7.50	6.25	5.50	8.00
	6.00	1.75	7.50	8.75	3.75	7.125	7.00	5.00	4.625	8.25	5.375	7.00	14.75	9.00	5.50	5.75
	4.00	3.75	3.50	3.25	5.50	7.125	3.25	6.00	3.75	3.50	6.75	7.50	8.75	8.50	8.00	5.50
	5.75	4.00	6.00	13.00	4.875	7.875	4.50	5.625	4.25	6.75	5.00	5.50	12.50	8.50	6.50	9.00
	4.75	4.25	3.25	4.00	5.25	4.00	4.375	7.50	5.00	7.25	3.75	2.75	7.50	9.25	10.75	6.75
	4.50	4.25	4.25	7.00	6.625	7.125	3.875	8.125	5.50	8.25	7.00	4.50	3.75	5.75	12.50	7.00
	6.75	4.75	5.25	8.00	7.25	8.25	3.50	2.00	5.00	5.25	7.00	9.25	12.50	7.00	3.50	3.75
	5.00	8.00	5.25	10.00	4.00	8.50	5.50	8.125	8.375	6.25	5.625	6.00	6.25	7.50	8.50	9.25
Totals	152.60	164.50	127.25	170.00	127.75	166.50	105.125	144.125	133.75	168.375	134.375	161.50	270.25	196.50	198.00	191.00

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	9.50	146.63	11.75	58.75	7.25	111.90	8.50	42.50	9.625	148.56	9.75	48.75	24.50	378.15	14.75	73.76
Lowest	3.00	46.30	1.75	8.75	2.875	44.39	2.00	10.00	2.50	38.59	2.75	13.75	2.00	30.87	3.50	17.50
Average	5.58	86.13	6.09	30.45	4.65	71.77	6.21	30.95	5.77	89.06	6.597	32.985	9.66	144.47	7.63	38.15
Tests above average	23		29		20		30		23		27		17		30	
Tests below average	27		21		30		20		27		23		24		20	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

Catalogue number of samples..	MINNESOTA. EWES, 2 to 3 YEARS OLD. 497.				498.				499.				500.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	3.75	7.00	2.375	5.25	4.50	8.00	5.50	8.125	7.625	6.00	5.375	9.25	6.75	7.00	6.50	8.00
	5.75	6.125	6.25	5.875	6.00	6.50	6.50	7.875	5.00	6.875	3.625	4.00	5.25	5.25	7.50	8.50
	5.50	9.00	4.00	7.125	10.00	8.00	4.00	1.50	10.375	5.50	5.625	7.50	12.25	9.00	8.75	6.00
	5.125	8.50	4.00	10.00	6.00	7.125	5.00	8.00	5.375	7.50	2.375	2.00	13.25	8.00	4.50	4.00
	5.625	5.75	3.50	7.00	5.25	7.00	4.00	2.00	8.75	8.00	3.625	7.25	7.00	8.00	12.00	6.25
	7.375	7.00	5.50	7.125	4.375	9.00	5.00	8.00	8.75	9.00	4.375	9.00	5.00	7.00	6.50	6.00
	4.50	6.50	2.125	7.25	3.75	7.75	3.50	9.25	4.75	7.75	5.625	10.00	9.75	4.00	7.75	8.00
	5.50	5.50	5.50	3.125	8.75	8.00	3.50	6.00	6.75	7.50	4.625	6.25	11.00	5.75	9.00	5.50
	6.125	8.00	4.25	8.00	6.125	8.00	4.50	8.00	5.00	3.75	3.75	5.25	11.75	7.00	9.50	6.25
	7.875	7.125	2.75	5.00	6.875	7.25	4.625	7.00	6.375	7.75	3.625	7.875	11.50	7.00	3.75	6.00
	3.00	1.00	4.25	5.00	5.00	7.00	4.00	7.00	2.625	3.25	4.50	6.75	8.00	7.50	8.75	6.50
	4.75	8.00	2.25	5.125	4.00	9.125	4.625	9.75	7.50	6.25	3.375	5.25	5.50	6.50	6.25	6.00
	2.25	7.00	8.50	10.75	4.50	9.00	3.75	8.00	10.00	6.75	4.50	8.00	4.50	5.50	6.50	7.75
	5.125	7.50	5.50	6.75	5.375	7.125	5.125	7.875	7.75	7.75	4.625	5.25	15.50	7.75	7.00	9.00
	6.75	6.875	3.375	6.25	6.375	8.25	4.75	8.00	5.00	6.25	5.375	7.125	7.00	5.75	9.75	7.50
	2.25	7.00	9.375	7.125	7.00	8.25	6.50	8.00	6.375	7.00	6.75	8.25	10.25	4.25	5.00	7.00
	5.25	9.75	4.125	8.00	5.00	7.00	4.00	8.00	3.375	6.25	5.00	7.00	6.25	8.00	6.00	5.25
	5.875	9.00	3.00	4.875	8.50	6.00	6.25	8.875	5.625	7.875	5.625	6.00	3.50	8.00	4.50	4.00
	3.875	7.125	2.375	2.50	3.25	6.50	4.50	8.00	6.00	7.75	7.375	7.25	5.00	5.75	5.50	6.00
	3.50	9.00	3.25	5.00	7.00	7.00	4.25	7.00	6.25	4.25	4.375	5.00	7.00	6.00	3.50	4.25
	2.625	6.00	3.50	8.25	5.00	7.00	4.25	8.75	4.375	9.25	4.625	6.25	6.50	6.00	5.00	8.25
	5.00	7.875	4.50	11.50	4.00	8.00	6.00	8.00	10.00	7.875	4.625	8.00	8.50	6.50	5.00	9.50
	6.125	8.00	4.50	7.75	5.00	7.50	7.625	8.25	7.375	6.875	5.375	6.125	3.75	2.50	8.50	9.00
	5.375	7.00	6.50	8.25	4.00	6.50	5.25	6.50	6.00	8.00	5.375	7.50	8.00	8.00	5.00	6.25
	6.375	6.875	3.00	9.75	3.50	6.50	3.50	6.00	5.375	8.00	3.625	6.875	7.75	10.00	6.00	9.50
Totals	125.75	181.00	108.25	174.625	138.125	187.375	120.50	195.75	166.375	172.00	115.75	107.875	200.50	166.00	168.00	170.25

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	9.375	144.70	11.50	57.50	10.00	154.35	9.25	46.25	10.375	160.13	10.00	50.00	15.50	239.24	10.00	50.00
Lowest	2.25	34.73	1.00	5.00	3.50	54.02	6.00	30.00	2.375	36.66	2.00	10.00	3.50	54.02	2.50	12.50
Average	4.66	77.92	7.11	35.55	5.17	79.80	7.66	38.30	5.34	82.42	6.85	34.25	7.37	113.75	6.72	33.60
Tests above average	24		25		19		29		27		32		21		24	
Tests below average	26		25		24		21		23		18		29		26	

Catalogue number of samples..	MINNESOTA. EWES, 2 to 3 YEARS OLD. 501.				ILLINOIS. RAMS, 1 YEAR OLD. 447.				448.				449.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	5.25	9.50	7.00	11.00	6.25	8.75	3.00	7.00	5.25	7.50	3.00	7.00	9.25	5.00	4.25	4.25
	4.25	8.50	4.25	7.75	3.25	7.00	3.50	3.00	4.25	5.75	3.50	7.25	6.75	2.25	6.00	7.50
	4.25	4.00	5.75	8.25	3.50	8.00	6.00	6.00	2.75	7.50	5.25	8.50	4.25	4.00	5.75	6.00
	4.00	7.75	6.50	7.75	4.25	1.75	2.00	1.75	5.25	5.50	5.00	6.875	4.75	3.75	9.75	6.25
	5.50	10.00	4.00	6.00	4.75	8.00	4.00	7.00	4.00	4.125	5.00	6.75	4.50	3.00	6.25	7.00
	4.00	7.25	3.50	4.50	5.00	10.00	6.00	8.50	3.00	6.50	3.00	7.75	7.00	1.75	6.00	4.00
	5.50	10.00	5.00	7.75	3.00	6.25	4.00	6.50	3.00	5.00	2.25	5.75	7.75	7.75	7.00	9.25
	6.00	9.00	5.00	8.00	3.25	10.00	4.50	7.00	3.25	7.00	3.25	8.25	6.75	7.50	7.00	3.75
	6.00	7.25	6.00	5.75	1.75	4.00	5.50	5.00	1.75	7.00	2.00	3.75	6.25	5.50	11.25	9.25
	5.75	6.50	4.50	7.25	6.00	8.25	3.75	3.00	4.25	6.75	4.00	7.00	9.25	7.00	6.25	8.75
	5.75	9.50	6.00	9.75	3.75	3.00	4.00	6.25	3.50	7.00	4.25	3.50	5.00	2.00	12.75	6.50
	5.75	9.00	6.00	7.75	8.25	7.25	4.50	9.00	1.75	6.00	3.00	6.00	4.75	3.75	4.75	4.75
	6.50	10.50	5.75	10.00	7.00	7.25	5.25	8.50	4.50	6.125	5.00	8.25	5.75	8.75	8.50	7.25
	6.25	10.00	6.25	8.00	5.25	7.50	4.25	4.00	3.25	5.00	3.75	5.50	10.75	7.00	5.25	7.75
	6.00	5.50	4.00	8.25	3.00	6.50	2.25	8.75	1.75	6.50	3.00	6.125	4.50	4.00	11.00	9.00
	6.50	10.00	6.00	8.25	7.75	7.00	3.00	3.00	3.00	6.125	3.125	8.125	9.50	7.00	4.00	7.50
	6.50	9.00	6.25	6.75	2.75	3.75	3.00	4.00	2.50	6.00	3.75	8.00	5.25	3.50	3.50	6.25
	6.75	7.75	7.00	8.25	3.00	3.75	2.25	1.75	2.75	7.50	4.50	6.25	4.25	4.75	7.00	9.00
	5.50	9.00	6.75	7.75	2.50	4.00	2.50	6.25	2.25	6.75	3.50	8.50	5.25	1.75	5.50	8.75
	6.00	6.25	6.25	10.00	3.25	8.00	4.75	6.50	1.75	4.75	4.00	7.75	5.50	7.25	8.00	5.75
	6.25	6.75	8.25	9.75	9.50	8.75	3.50	7.75	5.00	7.00	7.25	6.75	5.00	7.00	4.75	6.75
	6.50	10.00	5.25	6.50	4.25	8.00	4.00	6.50	2.00	5.00	3.00	5.00	6.00	3.75	10.00	4.25
	8.00	7.00	6.00	9.75	3.50	8.25	4.50	6.75	2.25	6.75	3.00	4.50	4.75	5.00	4.75	5.25
	3.50	6.00	6.50	9.00	2.00	1.50	3.50	7.50	2.75	6.00	4.00	5.00	4.25	5.25	4.50	6.75
	6.25	10.75	6.00	6.00	3.00	6.00	3.50	4.00	5.125	7.75	2.75	4.50	3.00	3.50	4.25	8.00
Totals	142.25	207.25	143.75	200.75	109.75	162.50	97.00	145.25	80.875	156.875	94.125	162.625	150.25	121.75	168.00	169.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	8.00	123.48	11.00	55.00	9.50	146.63	10.00	50.00	7.25	111.90	8.50	42.50	12.75	196.79	9.25	46.25
Lowest	3.50	54.02	4.00	20.00	1.75	27.01	1.50	7.50	1.75	27.01	3.50	17.50	3.00	46.30	1.75	8.75
Average	5.72	88.29	8.16	40.80	4.14	63.90	6.16	30.80	3.50	54.02	6.39	31.95	6.375	98.32	5.63	29.15
Tests above average	32		25		20		32		20		27		18		26	
Tests below average	18		25		30		18		27		23		32		24	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

ILLINOIS.

RAMS, 1 YEAR OLD.

Catalogue number of samples..	450.				451.				452.				453.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	2.25	5.50	4.00	6.75	5.00	5.00	9.75	6.00	3.25	2.25	3.50	7.75	5.00	3.75	5.00	6.00
	3.00	7.625	3.25	6.875	7.00	9.25	5.00	3.75	3.00	3.75	5.50	7.25	9.00	5.125	7.25	7.875
	5.125	7.50	3.25	5.00	5.00	7.25	4.75	2.50	2.50	3.50	2.625	7.00	5.00	5.75	7.50	4.75
	3.00	7.00	3.75	4.75	5.00	5.50	5.00	4.75	4.625	7.25	2.75	4.50	5.25	7.00	5.00	5.75
	4.375	7.875	3.25	5.875	4.50	6.00	4.75	3.00	2.625	6.25	3.00	5.00	7.25	4.75	10.25	5.00
	3.875	7.00	3.75	5.50	6.50	5.50	11.50	5.75	2.75	3.75	7.25	7.00	5.00	4.00	6.25	4.00
	4.00	4.00	4.50	6.00	7.50	7.00	5.00	4.00	4.50	6.25	3.375	6.50	5.50	4.25	7.25	4.75
	3.00	6.25	3.50	4.00	9.00	8.25	5.00	2.00	5.375	8.50	3.50	7.75	4.00	2.50	4.75	5.125
	3.875	4.00	3.00	5.00	3.00	2.00	5.25	6.25	2.625	7.50	4.00	5.00	8.25	4.00	6.75	1.75
	4.375	6.75	3.00	5.00	6.00	7.00	3.75	5.25	3.50	6.25	4.625	6.50	9.00	6.50	7.00	5.75
	3.00	7.25	4.00	7.00	7.00	6.75	5.50	4.50	4.375	8.50	2.625	7.25	8.50	5.00	10.25	6.75
	2.375	3.25	3.875	5.25	4.00	3.00	5.25	5.00	3.00	4.00	3.625	5.00	6.75	3.75	8.25	3.00
	3.125	6.50	3.00	6.25	10.25	8.25	3.75	2.75	3.375	6.75	6.375	7.25	11.00	7.00	6.75	4.00
	2.50	5.00	3.25	6.00	3.25	4.00	5.00	5.00	3.00	6.00	3.375	7.25	10.00	2.125	7.25	2.875
	3.00	7.00	5.00	5.00	6.25	6.50	4.75	5.00	3.00	5.00	6.25	5.50	12.75	6.75	11.25	2.25
	3.625	7.00	3.75	5.75	7.00	5.75	4.00	4.00	3.625	7.25	4.00	7.25	6.00	5.75	7.00	3.125
	3.75	2.25	3.375	5.75	6.75	8.00	6.00	6.25	3.75	7.00	3.625	5.00	5.50	5.875	6.75	3.50
	4.00	4.50	3.75	7.00	9.50	7.00	5.25	5.25	3.00	8.00	3.375	7.25	5.25	6.00	9.00	2.75
	2.00	3.00	2.625	7.50	3.50	2.00	5.25	3.75	5.375	3.75	3.75	6.25	8.75	7.50	7.00	2.125
	3.25	6.00	3.00	5.00	6.00	3.75	6.00	5.00	5.625	2.50	6.00	5.00	10.00	6.50	7.25	7.25
	2.00	3.00	3.25	7.25	4.75	5.25	4.00	4.00	4.00	9.00	3.375	7.25	6.75	5.00	8.50	3.75
	3.875	4.00	2.25	4.25	6.25	3.50	8.50	6.50	4.625	7.25	2.625	4.00	7.50	5.25	10.00	6.25
	2.00	3.00	2.375	5.00	8.25	6.00	4.25	4.00	2.625	6.00	3.50	7.25	7.50	6.75	4.75	5.125
	3.125	4.00	2.75	6.00	6.25	5.75	5.00	4.75	8.00	7.50	2.75	3.50	9.25	4.50	6.25	3.50
	2.50	3.25	2.375	6.75	9.75	5.50	5.00	6.25	4.625	7.50	4.375	4.75	6.00	7.25	8.25	5.75
Totals	81.00	135.50	83.875	150.00	157.25	143.75	139.25	117.00	96.75	151.78	99.75	160.00	185.25	136.75	183.50	118.75

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	5.125	79.10	8.00	40.00	11.00	169.78	9.25	46.25	8.00	123.47	9.00	45.00	12.75	196.79	8.00	40.00
Lowest	2.00	30.87	2.25	11.25	3.00	46.30	2.00	10.00	2.50	38.57	2.25	11.25	4.00	61.74	1.75	8.75
Average	3.30	50.93	5.75	28.75	5.93	91.53	5.22	26.10	3.97	60.97	6.24	31.20	7.38	113.91	5.11	25.55
Tests above average	21		27		22		26		19		31		20		27	
Tests below average	29		21		28		24		31		19		30		23	

ILLINOIS.

RAMS, 1 YEAR OLD.

Catalogue number of samples ..	454.				455.				456.				457.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	2.75	3.50	4.50	9.50	9.50	6.75	7.625	6.25	2.50	4.75	2.00	1.75	3.50	4.50	5.75	3.75
	6.00	9.50	9.00	7.00	3.00	2.75	4.25	5.00	4.75	7.00	7.25	6.00	3.00	3.50	3.75	2.75
	7.00	5.00	6.00	5.00	3.50	2.75	3.50	6.75	5.00	7.00	5.00	8.25	2.25	1.75	2.75	2.50
	6.50	6.50	7.00	5.00	3.625	5.75	5.25	8.25	5.50	5.00	3.75	6.00	5.75	6.00	3.25	2.75
	6.00	5.00	3.50	2.25	5.50	4.00	2.625	5.25	2.00	6.00	6.25	8.50	3.75	3.00	4.25	4.00
	5.25	8.00	7.00	8.75	5.375	7.25	3.00	6.75	5.50	4.00	3.00	6.00	4.25	3.75	4.00	3.00
	5.75	9.75	7.25	6.00	4.025	8.25	5.00	3.00	5.25	6.25	2.25	4.00	4.25	7.50	5.50	9.25
	3.75	3.00	9.50	5.00	3.50	4.75	6.00	7.75	2.50	4.50	7.75	6.50	5.25	7.50	4.00	3.00
	6.00	8.00	5.75	5.75	3.00	5.50	5.625	7.75	4.75	5.75	7.00	6.00	3.25	4.00	4.00	5.25
	7.00	6.25	6.25	8.50	4.625	7.25	3.375	5.00	3.00	5.75	2.50	7.00	3.25	3.75	4.25	7.00
	6.00	5.75	6.00	6.00	4.625	5.75	4.625	6.75	5.75	6.00	3.50	7.00	4.00	4.00	3.75	4.00
	4.25	3.00	7.00	5.75	4.75	4.25	4.00	8.00	2.25	3.50	6.00	7.00	3.75	3.00	4.00	5.50
	7.75	6.50	5.50	6.00	2.75	7.25	4.50	5.75	5.25	6.50	4.75	5.00	4.25	4.50	3.25	5.00
	5.75	8.00	7.00	8.00	4.00	2.75	4.00	3.50	3.25	3.25	3.25	7.50	3.50	3.75	4.50	3.75
	5.00	8.00	4.75	7.00	3.75	8.25	3.375	8.25	6.25	8.25	3.25	7.00	3.25	3.50	2.75	2.25
	5.25	7.50	5.50	4.00	4.625	7.00	3.00	7.50	3.50	5.00	5.25	4.00	3.50	2.00	4.00	6.00
	4.75	9.25	4.50	5.75	4.00	6.75	4.625	6.00	6.00	8.00	3.25	8.75	2.75	1.75	4.00	3.50
	6.25	1.75	5.75	7.25	3.625	7.75	4.625	1.75	5.75	8.25	4.25	7.50	3.25	5.25	3.50	5.75
	5.25	7.50	3.75	4.50	4.025	4.00	4.625	8.75	4.25	6.25	5.25	6.00	4.00	7.00	2.50	1.50
	5.00	8.00	3.00	2.00	3.625	2.00	5.00	7.00	5.00	8.75	5.25	6.50	4.00	3.00	3.50	3.00
	6.00	8.75	5.50	5.50	3.25	2.75	4.75	8.75	6.50	6.50	3.00	3.50	3.50	4.00	3.25	2.00
	6.50	8.00	0.00	7.50	3.50	8.25	4.25	4.00	4.50	8.00	3.75	7.00	4.75	7.25	5.00	4.00
	6.00	6.75	5.75	4.50	3.25	4.00	3.625	5.00	4.25	6.25	4.50	5.00	5.00	8.25	3.50	5.00
	4.00	8.00	4.50	7.75	6.375	8.50	4.00	8.00	3.75	5.00	4.75	6.75	3.00	2.00	4.00	5.00
	4.75	7.00	5.25	6.00	3.375	6.00	2.625	7.25	2.75	2.25	3.50	7.50	4.75	7.00	3.00	4.00
Totals	143.50	165.25	148.50	153.25	103.375	135.25	104.875	156.50	108.25	153.75	110.25	157.00	96.25	112.50	98.00	102.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	9.50	146.63	9.50	47.50	6.50	100.33	8.75	43.75	7.75	119.62	8.75	43.75	6.00	92.61	9.25	46.25
Lowest	3.00	46.30	1.75	8.75	2.625	40.53	1.00	5.00	2.00	30.87	1.75	8.75	2.25	34.73	1.50	7.50
Average	5.84	90.14	6.37	31.85	4.16	64.21	5.84	29.20	4.37	67.45	6.22	31.10	3.89	60.04	4.30	21.50
Tests above average	23		27		24		28		24		27		24		19	
Tests below average	27		23		26		22		26		23		26		31	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

ILLINOIS.

RAMS, 1 YEAR OLD.

Catalogue number of samples..	458.				459.				460.				461.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	10.25	2.25	3.00	0.875	8.00	3.50	5.75	8.00	9.50	4.00	8.00	1.25	9.50	6.50	3.50	4.75
	3.25	1.00	3.00	1.50	3.50	4.50	11.00	6.50	13.50	4.75	4.00	1.00	5.00	7.25	8.50	7.25
	3.25	1.75	5.50	2.25	9.25	4.00	3.25	6.25	6.00	6.50	7.00	4.00	4.00	6.25	5.00	2.00
	3.25	1.00	2.25	3.375	4.25	6.00	8.50	2.00	4.00	2.00	5.25	4.25	3.25	4.50	5.25	5.75
	3.25	2.75	3.25	1.00	3.25	5.75	4.75	8.00	7.25	1.75	7.75	3.00	3.75	5.00	6.00	7.25
	3.75	1.50	4.50	2.75	4.25	7.75	4.25	2.00	12.00	4.875	4.00	3.75	7.00	8.25	4.25	3.00
	3.50	2.50	3.75	4.125	4.25	3.00	8.50	9.00	6.25	5.75	6.50	6.00	3.75	5.75	5.75	5.00
	4.00	2.75	2.25	1.00	19.00	8.25	8.25	8.00	3.25	1.75	9.25	1.50	7.50	8.00	4.75	6.00
	3.00	2.875	3.25	1.50	4.25	6.00	2.25	2.50	9.75	6.125	6.00	4.25	4.00	6.00	6.50	4.75
	4.00	3.00	5.25	1.75	2.50	2.75	6.50	6.50	6.50	6.00	9.50	4.00	5.25	7.25	3.75	6.00
	4.00	1.00	3.00	5.00	6.00	5.00	10.50	8.25	5.00	3.875	4.00	4.875	5.00	6.00	5.50	8.25
	3.00	1.00	3.00	2.00	10.00	3.00	4.50	6.00	4.25	3.50	9.75	3.75	8.25	3.75	4.25	4.75
	12.50	7.75	3.25	3.00	8.25	6.75	5.25	7.25	8.50	3.50	3.25	1.875	5.25	3.00	6.00	3.00
	4.00	2.25	4.00	1.00	17.50	7.00	10.25	5.25	6.75	3.00	7.00	2.00	4.00	5.75	4.25	4.00
	4.00	1.50	5.75	8.875	5.25	4.25	5.25	7.00	9.75	7.00	5.00	3.50	4.75	4.75	5.50	4.75
	7.00	2.50	2.75	1.00	10.00	2.50	3.75	6.00	3.25	2.75	6.25	3.50	4.25	3.75	5.00	8.00
	8.00	5.00	4.25	2.75	5.25	3.25	2.50	5.00	5.25	1.125	5.75	3.25	5.00	3.75	5.00	7.00
	2.75	2.00	4.00	1.50	5.00	6.75	13.25	6.75	7.75	1.75	5.00	3.00	4.00	5.25	5.50	8.00
	2.25	0.75	2.50	0.75	3.50	6.00	7.25	6.75	9.50	5.875	5.75	4.25	5.50	6.00	3.75	3.75
	5.50	1.75	3.25	1.25	3.50	3.50	5.50	7.75	9.25	7.75	6.00	5.00	4.75	4.50	4.00	4.00
	2.75	3.00	7.50	3.25	3.50	7.50	4.50	7.00	5.50	2.00	4.50	2.125	3.50	2.75	5.00	5.75
	2.50	3.75	3.25	1.25	6.50	1.25	6.00	7.75	14.75	7.75	8.00	2.75	8.00	6.00	3.75	4.00
	8.50	1.00	6.50	3.50	6.00	7.75	8.50	5.25	7.25	6.00	5.75	5.125	4.50	7.00	5.50	7.00
	4.25	1.50	6.125	3.875	6.25	4.25	7.00	5.00	6.50	4.25	6.00	4 00	6.25	5.75	4.00	5.00
	5.00	2.25	4.25	1.125	4.25	4.00	6.75	6.00	9.00	4.25	4.25	2.00	6.50	7.75	3.00	2.00
Totals	117.50	58.375	101.375	58.25	163.75	124.25	163.75	155.75	89.75	107.875	153.50	84.00	132.50	140.50	123.25	131.00

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	12.50	192.93	8.875	44.375	19.00	293.26	9.00	45.00	14.75	227.66	7.75	38.75	9.50	146 63	8.25	41.25
Lowest	2.25	34.73	0.75	3.75	2.25	34.73	1.25	6.25	3.25	50.16	1.00	5.00	3.00	46.30	2.00	10.00
Average	4.38	67.60	2.33	11.65	6.55	101.10	5.60	28.00	6.87	106.04	3.84	19.20	5.12	79.03	5.42	21.15
Tests above average	15		20		18		29		21		25		20		26	
Tests below average	35		10		32		21		19		25		30		24	

ILLINOIS.

	RAMS, 1 YEAR OLD.				RAMS, 2 YEARS OLD.											
Catalogue number of samples..	462.				442.				445.				446.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	7.00	6.00	4.50	4.00	8.00	7.00	5.25	7.125	3.25	2.25	2.625	5.00	3.625	5.25	5.375	5.25
	5.50	3.00	4.50	4.50	12.50	6.75	5.50	4.75	2.75	7.00	4.625	8.00	3.50	5.75	3.75	2.25
	5.375	6.25	8.375	6.00	7.75	4.75	4.00	5.00	11.625	8.25	3.25	4.375	4.375	3.25	3.75	4.75
	3.75	5.00	5.75	5.00	7.25	5.50	3.25	6.00	3.25	3.25	4.25	2.00	4.75	5.25	2.50	2.25
	5.75	6.25	5.625	6.125	6.75	5.75	3.25	5.00	3.375	4.00	7.25	7.00	4.375	3.25	2.625	1.00
	4.50	2.50	8.50	5.25	4.00	8.00	11.25	5.00	2.00	1.00	3.75	2.375	3.00	4.00	8.75	8.50
	8.75	7.25	7.00	5.75	3.00	4.50	4.25	5.25	9.00	6.50	4.375	3.00	3.75	7.00	3.375	2.75
	7.50	6.75	7.00	7.25	4.00	6.00	3.50	7.75	8.25	5.00	3.25	4.00	4.00	3.00	5.50	2.50
	5.875	6.125	6.625	5.75	4.25	5.875	6.00	4.50	3.625	5.25	3.375	3.125	3.75	5.25	3.25	7.00
	7.50	5.25	5.75	4.25	2.75	5.00	4.50	7.25	3.00	3.00	2.75	1.00	5.75	6.00	3.375	6.00
	4.875	6.00	8.00	6.75	10.75	6.00	5.00	7.125	2.875	3.50	8.625	6.50	5.00	4.75	7.25	7.25
	5.75	6.375	7.25	6.25	8.25	3.00	3.25	6.875	2.75	4.25	5.25	4.25	2.50	1.75	8.00	7.25
	5.375	6.00	5.50	6.25	8.00	7.75	3.00	4.875	3.375	5.00	4.25	2.125	7.25	6.50	3.75	7.75
	6.00	4.50	4.00	3.75	7.125	5.75	7.25	6.00	4.25	4.25	3.25	3.50	7.00	5.25	4.375	7.25
	5.00	4.50	7.25	5.75	5.00	7.00	5.25	7.75	2.00	3.00	3.00	3.75	3.00	4.00	2.375	4.75
	5.00	5.25	6.50	6.50	7.75	6.25	6.00	7.00	4.875	3.25	5.00	1.25	2.375	4.00	5.75	8.00
	5.25	4.50	6.00	5.875	6.50	8.00	2.125	5.875	2.75	3.25	7.625	6.75	3.625	5.75	2.375	2.75
	5.50	6.00	4.50	5.00	2.25	3.00	3.00	3.50	4.00	3.00	3.50	2.375	8.25	7.00	2.50	2.75
	7.75	7.00	4.50	6.375	4.25	6.75	6.50	6.50	6.00	5.125	5.25	4.75	4.50	2.75	3.75	6.25
	4.875	6.875	6.75	5.125	5.25	2.00	4.50	6.25	5.50	5.25	3.75	3.00	3.375	3.50	4.375	4.75
	4.50	2.25	6.00	7.00	3.55	6.75	7.50	5.50	3.00	1.25	4.375	5.00	3.75	5.25	7.625	6.75
	3.00	3.00	7.625	7.00	5.25	5.125	6.25	5.50	3.00	4.00	5.00	4.875	3.75	4.75	6.375	7.25
	6.625	5.00	7.00	5.75	12.75	6.50	3.00	4.75	6.50	3.25	4.75	4.25	2.75	3.25	3.625	5.25
	5.75	5.25	6.00	5.25	6.25	8.25	4.00	1.75	6.75	5.125	2.75	3.25	4.50	2.00	2.75	5.75
	6.375	6.00	6.25	6.00	7.125	8.00	4.75	5.50	6.375	7.00	9.00	7.00	5.00	5.50	3.25	4.25
Totals	143.125	133.375	156.75	143.50	160.25	149.25	122.125	142.375	114.125	106.00	114.875	102.50	107.50	118.00	110.375	130.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	8.75	135.05	7.25	36.25	12.75	196.79	8.25	41.25	11.625	179.43	8.25	41.25	8.75	135.05	8.50	42.50
Lowest	3.00	46.30	2.25	11.25	2.125	32.798	1.75	8.75	2.00	30.87	1.00	5.00	2.375	36.67	1.00	5.00
Average	6.00	92.61	5.54	27.70	5.65	87.21	5.83	29.15	4.58	70.69	4.17	20.85	4.36	67.29	4.97	24.85
Tests above average	20		29		21		17		17		25		21		27	
Tests below average	26		21		29		23		11		25		29		23	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

ILLINOIS.

Catalogue number of samples.	RAMS, 3 YEARS OLD.								EWE, LAMB.				EWES, 1 YEAR OLD.			
	440.				441.				481.				477.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
Actual measurement in grams and millimeters.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	[illegible]	[illegible]	8.50	4.50	5.625	5.25	4.625	4.50	[illegible]	6.00	[illegible]	9.00	7.375	7.50	6.25	4.00
	4.875	5.00	7.25	1.25	3.625	4.25	5.50	6.75	5.25	8.25	4.25	9.50	8.625	5.00	5.00	3.00
	7.25	3.875	6.25	6.25	3.625	5.75	4.50	4.25	6.00	7.25	5.00	8.50	3.00	2.00	10.75	6.75
	4.25	4.75	[illegible]	6.25	5.25	6.00	7.50	7.75	6.25	9.75	6.50	9.25	9.375	2.00	9.00	5.00
	6.00	[illegible]	2.625	5.00	4.50	6.50	[illegible]	1.50	5.00	7.50	6.00	7.75	4.00	1.50	6.625	6.00
	6.75	3.00	7.25	3.25	3.00	3.75	4.75	3.75	4.00	5.00	3.25	[illegible]	6.625	6.75	2.75	3.75
	6.75	7.375	3.25	4.00	[illegible]	6.50	4.625	4.50	3.75	[illegible]	5.75	9.00	3.75	7.25	2.625	2.25
	4.25	2.00	10.00	6.00	4.00	[illegible]	4.375	3.00	4.50	6.75	3.75	[illegible]	7.375	3.00	3.50	1.25
	5.75	2.875	2.75	2.00	6.00	2.25	2.75	3.00	7.00	9.00	4.00	8.50	4.75	[illegible]	3.25	2.00
	3.75	5.00	2.75	2.00	4.50	1.25	5.00	3.75	4.25	7.75	4.50	9.75	3.625	4.50	8.625	3.25
	[illegible]	[illegible]	2.75	4.00	5.00	4.75	3.375	[illegible]	5.00	9.75	5.50	[illegible]	3.00	1.50	4.50	1.50
	4.75	3.25	4.00	5.50	6.00	5.75	2.625	[illegible]	4.50	[illegible]	3.25	9.00	5.00	[illegible]	7.00	2.75
	7.625	6.25	4.00	5.50	4.625	4.75	4.50	2.00	3.25	6.00	3.00	6.75	4.00	3.75	6.625	[illegible]
	2.75	3.00	4.375	6.00	7.00	[illegible]	4.25	6.00	5.50	7.25	4.25	7.75	6.375	6.00	3.00	2.50
	2.50	[illegible]	7.00	3.25	4.375	4.00	5.25	4.75	5.75	[illegible]	4.25	7.875	5.00	5.50	3.25	4.00
	8.625	4.875	5.00	7.00	3.625	1.50	5.375	5.25	3.50	7.75	4.00	[illegible]	4.625	6.75	5.00	5.75
	3.75	7.00	5.75	5.375	4.00	2.75	10.625	5.00	[illegible]	6.75	4.25	7.75	5.50	3.00	2.625	2.00
	5.375	5.00	6.875	6.75	8.625	[illegible]	3.25	3.00	5.75	[illegible]	3.875	5.00	6.375	2.50	3.00	2.00
	3.00	7.00	3.50	5.00	4.25	4.00	2.625	3.25	7.00	8.75	5.00	[illegible]	[illegible]	3.75	5.625	4.00
	4.00	5.875	3.75	3.25	3.375	3.00	3.625	2.50	6.00	[illegible]	4.00	7.25	5.50	2.00	4.375	2.50
	4.75	3.25	4.75	3.25	[illegible]	7.00	6.50	5.75	7.50	7.875	4.00	6.75	4.625	4.00	5.625	[illegible]
	5.75	[illegible]	3.75	3.25	7.625	3.25	4.375	[illegible]	3.875	7.75	3.50	7.75	2.625	4.75	2.75	4.75
	4.00	4.25	5.25	5.25	3.625	2.50	8.50	2.75	3.25	[illegible]	6.55	5.875	3.625	2.25	2.00	1.00
	4.00	5.625	3.00	3.25	5.25	4.50	[illegible]	4.75	3.875	7.875	5.75	6.50	3.75	[illegible]	5.625	4.75
	4.75	4.75	[illegible]	[illegible]	4.625	1.75	3.75	6.00	5.00	5.50	6.00	7.75	4.50	7.75	3.50	[illegible]
Totals	126.375	118.00	126.875	109.875	125.125	102.75	117.25	101.25	128.00	[illegible]	113.125	195.625	131.50	106.25	122.875	88.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	10.00	154.35	7.375	36.875	10.625	163.99	7.75	38.75	8.00	123.48	9.75	48.75	10.75	165.93	7.75	38.75
Lowest	2.50	38.59	1.25	6.25	2.625	40.52	1.25	6.25	3.00	46.30	5.00	25.00	2.00	30.87	[illegible]	[illegible]
Average	5.11	78.87	4.56	22.80	4.86	74.86	[illegible]	20.40	4.82	74.39	7.75	38.85	5.09	78.56	3.90	[illegible]
Tests above average	[illegible]		26		20		24		23		27		[illegible]		[illegible]	
Tests below average	30		24		30		26		27		[illegible]		30		26	

ILLINOIS.

Catalogue number of samples.	EWES, 1 YEAR OLD.												EWES, 2 YEARS OLD.			
	478.				479.				480.				[illegible].			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
Actual measurement in grams and millimeters.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	[illegible].	grams.	mm.	grams.	mm.	grams.	[illegible].	grams.	mm.
	5.75	5.00	4.25	4.00	4.75	4.50	7.00	[illegible]	3.75	6.25	[illegible]	4.25	10.25	7.00	7.75	4.75
	5.00	7.00	4.00	4.25	2.625	3.75	2.625	3.00	3.25	6.00	[illegible]	4.00	6.00	2.00	6.00	6.25
	[illegible]	3.00	4.00	4.00	3.625	6.50	3.625	5.00	5.50	2.25	3.25	3.00	6.75	[illegible]	[illegible]	[illegible]
	3.75	2.50	8.50	4.00	5.625	7.50	6.375	4.25	5.00	[illegible]	5.25	3.00	14.25	7.50	6.00	[illegible]
	3.25	3.75	3.00	[illegible]	3.50	1.00	3.00	6.25	5.00	7.25	7.50	7.00	10.75	5.00	[illegible]	5.25
	4.75	5.50	3.75	2.75	6.625	[illegible]	2.25	1.75	4.00	[illegible]	4.25	[illegible]	9.00	5.75	9.00	7.00
	6.00	6.75	3.00	2.00	3.00	1.75	7.50	7.75	3.50	[illegible]	3.75	2.00	10.25	6.00	5.75	7.00
	4.25	2.50	3.50	3.00	4.50	3.75	2.75	[illegible]	3.25	[illegible]	2.75	3.00	[illegible]	[illegible]	[illegible]	[illegible]
	4.75	3.00	3.75	2.00	5.00	7.25	4.375	6.50	2.50	2.25	4.00	[illegible]	8.25	6.75	[illegible]	[illegible]
	3.75	5.50	4.75	5.00	3.375	9.75	3.00	6.75	3.00	3.00	4.75	3.00	11.25	4.75	10.00	6.25
	4.25	[illegible]	4.75	3.00	3.50	2.50	2.75	5.25	4.75	7.25	2.50	3.00	7.50	6.50	[illegible]	7.50
	4.75	4.75	2.75	2.00	4.75	[illegible]	3.375	1.75	3.50	6.00	5.25	6.00	6.50	[illegible]	12.75	7.75
	3.75	2.00	3.00	2.00	3.375	5.00	7.25	8.00	4.50	7.75	3.75	6.25	7.00	1.50	10.75	7.50
	3.75	[illegible]	4.25	3.75	2.375	[illegible]	3.375	5.50	4.75	7.00	4.75	2.50	5.25	7.00	6.00	9.00
	3.75	1.75	2.00	[illegible]	2.75	3.75	2.625	3.50	2.75	2.75	4.50	7.75	9.00	7.25	5.75	8.75
	5.00	2.75	3.75	3.00	5.375	8.25	3.375	1.50	2.75	2.00	7.75	5.75	[illegible]	6.50	6.00	[illegible]
	3.75	1.50	3.75	7.00	4.00	3.75	3.625	6.75	5.50	7.25	4.75	8.00	12.00	2.50	4.00	7.25
	5.00	3.50	[illegible]	6.50	3.00	5.00	4.625	6.00	4.50	3.25	4.25	3.00	5.50	8.00	14.75	[illegible]
	3.00	4.00	3.00	3.00	6.375	[illegible]	5.25	3.75	5.00	6.00	3.00	2.75	10.00	[illegible]	[illegible]	6.00
	5.00	[illegible]	2.25	2.00	4.25	4.25	[illegible]	[illegible]	5.00	9.50	5.75	[illegible]	6.00	7.50	5.75	7.00
	5.25	1.50	0.00	2.50	4.625	2.75	[illegible]	7.00	7.00	[illegible]	3.25	4.75	6.00	9.50	12.25	7.25
	4.25	3.75	3.75	4.25	6.75	7.00	3.00	6.00	4.00	[illegible]	5.00	2.00	7.00	8.50	4.50	[illegible]
	3.25	2.00	7.75	4.00	3.00	2.75	4.375	2.75	3.75	3.00	4.00	5.00	4.75	6.75	5.00	7.00
	3.75	4.25	5.00	2.75	3.25	4.75	4.375	6.00	7.25	5.75	5.75	2.00	[illegible]	6.50	5.00	[illegible]
	3.00	1.75	2.75	2.00	4.75	4.75	5.375	[illegible]	5.75	6.00	6.25	5.25	7.00	9.75	7.00	7.50
Totals	106.50	93.25	[illegible]	81.75	[illegible]	115.75	106.25	123.75	109.50	128.00	113.00	111.25	210.25	160.75	203.00	184.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	[illegible].	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	9.00	138.91	7.00	35.00	8.375	129.26	9.75	48.75	7.75	119.62	9.50	47.50	17.50	270.11	9.75	48.75
Lowest	2.00	30.87	[illegible]	5.00	2.00	30.87	[illegible]	[illegible]	2.50	[illegible]	1.25	6.25	[illegible]	61.74	1.50	7.50
Average	4.29	66.82	3.50	17.50	4.22	65.134	4.78	23.90	4.45	68.68	4.79	23.95	8.27	127.64	6.91	34.55
Tests above average	21		[illegible]		23		25		25		24		23		[illegible]	
Tests below average	29		[illegible]		[illegible]		25		25		26		27		20	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

ILLINOIS.

EWES, 2 YEARS OLD.

Catalogue number of samples..	464.				465.				466.				467.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	2.50	3.00	3.50	3.00	3.25	7.75	3.50	6.25	6.00	7.75	4.25	6.50	3.00	3.00	3.00	3.75
	6.50	7.00	5.00	6.25	3.75	6.75	4.50	7.75	6.00	4.75	4.25	3.75	2.25	7.00	3.00	3.75
	5.00	6.00	7.50	4.25	2.50	6.00	3.25	5.00	10.00	3.75	5.25	2.00	6.75	7.25	4.00	4.75
	4.50	3.50	7.25	7.25	3.75	8.00	3.25	9.00	2.75	2.00	4.00	6.50	3.25	5.50	6.25	6.00
	4.00	7.75	6.50	4.25	4.75	2.00	5.00	8.00	4.75	5.75	4.75	10.00	3.25	4.25	5.00	2.00
	3.50	3.25	4.25	7.25	4.00	8.00	4.375	8.00	11.25	8.00	5.50	6.50	3.75	3.00	3.50	4.50
	3.75	2.00	8.00	7.25	3.25	6.75	2.00	7.75	5.00	9.75	7.00	7.00	5.00	5.00	6.75	5.25
	4.00	1.50	4.75	8.00	3.375	7.00	2.50	6.50	5.25	4.00	5.75	3.00	4.25	3.00	4.00	3.25
	3.75	5.75	3.75	6.00	2.50	3.875	6.75	4.00	4.75	11.00	6.00	2.75	3.25	1.75	5.25	5.00
	3.00	2.75	4.25	4.75	2.75	2.50	1.75	5.00	5.25	4.75	4.75	4.00	3.25	4.25	4.00	5.75
	2.25	7.50	6.25	4.75	3.00	5.50	2.50	6.125	5.00	7.75	4.50	3.00	6.25	4.25	4.25	7.00
	4.25	6.75	7.25	4.50	1.75	5.875	3.25	6.875	4.25	8.00	5.00	6.00	6.25	6.75	3.75	6.25
	6.25	5.25	6.00	4.75	2.50	7.25	2.75	6.00	8.00	5.25	5.00	8.25	5.25	7.50	4.25	5.50
	6.00	6.00	5.25	7.00	1.50	5.00	7.00	7.00	5.50	8.50	6.50	8.00	3.75	5.00	5.75	4.25
	3.50	7.75	5.25	7.75	2.75	6.125	3.125	7.75	5.00	8.25	5.50	6.00	5.25	4.50	4.50	7.00
	4.25	5.25	6.00	7.50	4.50	5.00	4.50	7.00	5.00	6.50	9.00	7.50	3.75	4.00	4.25	6.00
	5.00	3.75	3.75	3.25	2.00	8.00	4.125	8.25	6.00	4.75	3.00	4.25	3.50	3.25	4.25	7.00
	5.00	2.00	3.00	2.25	3.50	7.75	3.50	5.00	7.00	2.50	3.75	8.75	3.00	3.50	4.25	6.50
	6.00	8.50	4.50	4.75	4.75	8.00	4.25	6.75	5.50	9.00	5.50	7.00	4.00	5.00	2.25	2.00
	5.00	6.75	3.00	4.25	3.00	6.50	4.125	6.875	9.00	9.75	5.00	7.25	4.00	3.75	3.25	4.00
	3.50	3.25	4.25	7.00	2.75	6.125	2.50	4.75	5.50	8.50	4.50	7.50	5.25	5.75	5.00	3.25
	3.50	7.00	6.25	7.25	2.50	5.25	3.00	5.25	4.25	9.75	4.75	5.75	4.25	6.00	4.75	6.25
	6.00	3.50	8.00	8.25	2.375	6.25	2.75	4.00	7.75	7.50	4.50	5.25	3.00	5.75	2.25	4.75
	6.75	8.00	3.25	3.25	3.875	4.875	2.50	7.00	7.75	6.25	8.00	3.75	5.00	2.00	5.75	4.25
	2.75	3.00	5.00	3.00	2.75	4.25	3.00	5.25	9.75	9.00	3.25	2.00	3.00	3.25	4.25	5.75
Totals	110.50	123.75	131.75	135.75	77.375	152.50	86.875	163.875	157.00	166.50	134.25	145.50	103.50	114.25	107.50	123.25

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	8.00	123.477	8.50	4.25	7.00	108.04	9.00	45.00	11.25	173.64	10.00	50.00	6.75	104.18	7.50	37.50
Lowest	2.25	34.73	1.50	7.50	1.50	23.15	2.00	10.00	2.75	42.44	2.00	10.00	2.25	34.73	1.75	8.75
Average	4.85	74.875	5.19	25.95	3.29	50.78	6.33	31.65	5.83	89.98	6.24	31.20	4.22	65.13	4.75	23.75
Tests above average	24		25		20		27		16		27		25		24	
Tests below average	26		25		30		23		34		23		25		[illegible]	

ILLINOIS.

EWES, 2 YEARS OLD.

Catalogue number of samples..	468.				469.				470.				471.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	3.75	7.00	4.50	6.50	4.00	6.25	4.875	7.00	4.00	5.50	10.00	7.00	4.00	4.00	5.25	6.00
	4.50	8.25	8.75	2.00	4.375	7.00	5.00	9.00	5.625	6.00	9.625	7.25	2.875	4.875	5.125	7.00
	4.00	3.25	4.00	6.25	5.00	7.125	4.375	9.125	5.25	4.00	5.00	6.75	4.50	7.00	7.50	7.00
	4.00	9.75	5.75	9.00	3.875	10.875	6.875	4.75	3.00	8.00	6.50	7.25	4.00	7.00	6.125	7.00
	3.75	9.00	4.00	7.00	4.75	10.00	4.50	7.125	4.00	2.25	7.50	7.25	6.375	6.00	5.625	6.50
	4.00	7.00	5.00	6.00	3.75	7.125	3.25	4.875	5.50	8.00	5.375	8.25	6.75	6.00	10.25	5.00
	2.75	3.50	3.50	6.00	4.375	8.125	3.25	5.125	4.50	7.50	3.00	6.25	5.75	6.50	4.375	6.875
	4.00	6.00	3.00	6.75	3.00	6.875	3.625	8.00	4.50	6.00	3.375	7.75	5.75	6.75	4.00	4.00
	4.25	4.50	4.00	7.25	3.75	5.875	5.125	7.625	3.00	5.00	5.00	6.75	5.75	6.75	4.50	1.75
	4.00	7.00	8.50	3.75	4.00	8.00	3.25	8.00	3.625	7.25	7.75	7.75	4.00	7.00	6.875	7.50
	3.00	7.75	10.25	7.50	4.375	8.00	2.50	8.625	4.50	7.50	7.25	5.75	7.75	7.00	9.625	7.00
	3.00	4.00	10.00	7.25	3.25	7.125	4.25	8.875	5.50	7.50	7.375	6.00	4.125	4.00	4.00	2.50
	10.00	4.50	3.50	4.25	3.625	8.00	0.00	7.875	3.00	2.75	5.375	5.00	7.25	7.50	8.00	5.00
	3.75	5.25	3.50	5.00	3.25	2.875	4.25	5.00	7.625	5.50	7.75	8.25	3.75	6.00	12.50	7.00
	3.25	3.75	4.75	5.25	4.00	7.125	7.125	9.00	6.00	7.25	7.375	4.75	3.25	7.00	6.00	6.25
	7.00	7.00	2.75	6.00	4.00	6.375	6.375	3.875	3.00	4.50	5.25	3.50	6.875	8.00	3.125	3.00
	9.00	5.25	3.00	7.00	3.50	9.00	5.125	10.00	5.00	4.25	5.50	5.50	7.75	4.00	5.00	7.00
	8.75	8.75	5.00	6.50	4.875	10.00	5.50	6.875	3.25	6.00	3.00	1.50	6.375	6.75	8.75	8.00
	4.00	5.00	3.75	7.50	4.875	8.75	4.125	7.25	6.50	8.00	2.25	1.00	7.375	6.00	5.00	6.00
	6.00	5.50	3.25	6.75	6.125	8.00	4.125	6.375	2.75	1.00	3.00	3.75	5.75	8.00	5.75	7.125
	5.00	8.00	6.00	7.75	3.25	5.125	4.875	8.875	3.75	6.00	4.00	6.25	5.375	6.00	5.625	7.50
	7.75	5.75	4.50	9.25	4.75	9.125	5.75	6.875	5.75	6.00	5.50	4.00	4.50	3.00	8.375	7.00
	17.00	6.00	6.25	9.50	4.75	8.00	5.50	9.00	4.25	6.75	3.375	3.75	3.00	2.25	6.25	5.00
	9.00	7.75	6.50	8.00	3.25	9.875	6.00	7.00	4.75	5.25	5.25	6.25	5.625	4.50	4.50	4.75
	3.00	6.25	3.00	5.00	4.125	8.125	4.125	6.00	3.625	7.25	3.25	4.50	5.00	5.50	6.875	6.00
Totals	130.50	156.00	127.00	163.00	102.875	192.75	119.75	182.125	112.25	145.00	138.25	142.00	133.50	147.375	154.00	147.75

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	17.00	262.30	9.75	48.75	7.125	109.97	10.875	54.375	10.00	154.35	8.25	41.25	12.50	102.93	8.00	40.00
Lowest	2.00	30.87	2.00	10.00	2.50	38.59	2.875	14.375	2.25	34.73	1.00	5.00	2.875	44.37	1.75	8.75
Average	5.15	79.49	6.38	31.90	4.45	68.68	7.50	37.50	5.02	77.48	5.74	28.70	5.75	88.75	5.90	29.50
Tests above average	15		26		21		27		23		30		19		31	
Tests below average	35		24		20		23		27		20		26		16	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

	ILLINOIS.															
	EWES, 2 YEARS OLD.												EWES, 3 YEARS OLD.			
Catalogue number of samples..	472.				473.				474.				475.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	8.50	7.00	4.25	5.25	6.00	6.00	3.50	2.00	10.00	5.875	5.00	4.00	7.75	5.50	4.00	8.25
	11.00	8.00	5.25	8.50	5.25	3.25	9.00	8.75	6.25	7.125	3.625	6.25	4.25	3.00	4.00	7.75
	6.00	7.00	4.75	8.00	6.75	7.25	5.00	7.00	3.25	4.00	8.00	8.00	6.00	9.00	7.00	8.75
	8.75	7.00	5.25	3.00	8.50	10.00	5.25	7.50	8.00	5.75	10.00	5.875	9.00	9.75	5.00	9.25
	9.75	8.00	5.25	6.00	6.75	7.00	5.75	7.00	7.25	8.00	4.875	4.50	3.50	5.00	4.00	8.75
	3.75	3.25	5.00	7.25	6.75	9.00	8.25	7.25	5.00	4.00	6.75	4.25	4.75	4.75	8.25	11.50
	6.50	7.25	10.00	7.00	4.00	3.00	5.75	2.00	7.25	5.75	10.75	7.75	9.00	8.50	5.00	7.75
	5.00	7.50	3.75	6.50	8.75	9.00	4.00	7.50	5.75	8.00	4.50	1.75	5.75	9.00	5.75	8.75
	8.00	8.00	11.00	8.25	6.00	3.00	4.00	9.00	0.625	6.00	6.25	5.25	9.00	8.75	7.25	9.00
	6.50	8.00	6.00	8.75	7.50	6.25	4.50	4.50	3.50	2.00	6.00	7.00	5.25	7.25	4.25	6.25
	8.00	8.25	7.25	7.00	5.25	3.75	3.25	7.75	5.00	3.00	9.00	7.375	8.25	9.25	5.00	9.25
	11.00	8.00	4.00	7.00	6.00	9.25	6.50	6.75	7.50	6.00	6.00	6.00	6.25	7.00	6.00	8.25
	5.25	8.00	9.00	4.75	6.00	8.00	4.25	7.00	10.75	6.75	10.25	6.25	4.75	7.75	3.00	8.00
	11.25	8.25	5.00	8.75	7.50	8.00	5.00	4.00	5.25	6.125	9.75	6.875	3.75	6.00	3.75	8.50
	5.00	2.50	6.75	8.00	4.75	3.25	6.00	4.00	5.125	6.375	5.50	5.00	5.25	10.00	2.50	5.00
	4.25	5.25	4.00	1.50	3.00	3.75	9.00	2.50	7.50	1.25	4.50	7.00	3.75	7.00	3.75	5.25
	4.00	3.50	8.00	4.75	5.75	7.00	5.25	8.00	8.875	3.00	5.00	6.00	4.00	6.00	6.00	10.00
	7.00	10.25	4.25	8.25	6.00	9.00	5.00	11.00	10.125	6.00	5.50	7.00	3.75	7.50	3.25	9.00
	8.00	8.00	11.00	9.00	3.50	3.00	5.00	4.00	5.75	7.00	10.25	6.50	3.25	2.50	6.00	8.50
	5.00	6.50	6.00	8.50	7.50	9.75	6.50	9.00	5.875	5.00	10.375	8.00	4.00	8.75	5.25	8.75
	11.50	7.25	6.00	6.25	6.00	10.00	5.75	6.25	5.75	2.50	7.75	2.75	4.25	5.25	11.50	9.75
	5.25	8.50	6.50	3.00	4.00	5.50	6.25	5.50	5.125	7.00	7.75	6.00	4.75	9.00	3.75	6.00
	7.00	6.25	5.00	5.00	6.75	7.75	6.00	7.00	6.25	5.25	6.25	6.00	5.00	2.75	9.25	7.00
	5.25	8.00	8.00	8.00	4.50	3.75	5.00	8.75	9.375	6.50	4.50	6.125	6.00	8.00	5.25	7.25
	3.75	4.00	3.00	5.75	8.75	8.25	5.00	8.25	5.00	5.375	3.25	2.00	6.75	8.00	7.75	5.50
Totals	177.00	169.50	149.75	164.00	151.50	162.75	134.75	157.25	160.125	133.625	171.25	139.50	138.00	175.25	136.50	198.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	11.50	177.50	10.25	51.25	9.00	138.91	11.00	55.00	10.75	165.92	8.00	40.00	11.50	177.50	11.50	57.50
Lowest	3.00	46.30	1.50	7.50	3.00	46.30	2.00	10.00	3.25	50.16	1.25	6.25	2.50	38.59	2.50	12.50
Average	6.54	100.94	6.67	33.35	5.73	88.44	6.40	32.00	6.75	104.18	5.46	27.30	5.49	84.74	7.48	37.40
Tests above average.....	19		30		28		29		29		32		20		30	
Tests below average.....	31		20		22		21		29		18		30		20	

	ILLINOIS.												TEXAS.			
	EWES, 3 YEARS OLD.				MISCELLANEOUS EWES.								RAMS, 2 YEARS OLD.			
Catalogue number of samples..	476.				443.				441.				616.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	6.25	8.25	4.75	3.75	3.75	2.25	7.00	7.75	7.00	9.50	9.25	8.00	3.25	5.00	3.00	3.50
	3.00	5.75	4.50	3.00	3.75	3.00	3.00	5.25	2.50	3.00	4.25	5.00	3.00	5.25	6.50	6.50
	5.25	6.00	4.25	7.75	3.50	6.00	4.00	8.50	4.25	7.25	5.00	7.50	4.00	7.00	5.25	6.00
	4.75	9.50	5.00	3.50	4.00	5.50	7.00	8.50	3.75	5.25	7.00	7.75	3.00	4.75	3.50	5.25
	4.00	8.50	5.75	8.00	8.50	8.25	3.75	7.00	8.25	8.50	6.25	9.00	3.00	3.50	5.25	2.75
	5.50	7.75	4.00	5.00	3.25	6.50	2.75	2.00	8.50	8.50	4.25	7.00	2.75	7.00	9.75	6.75
	6.75	4.75	5.50	8.25	5.00	6.25	3.75	6.00	4.75	7.00	3.00	6.00	5.25	7.00	3.00	6.00
	5.00	7.50	5.25	7.25	3.00	3.75	5.00	7.00	4.25	7.25	4.75	5.00	5.00	8.00	3.50	5.00
	6.25	9.00	5.25	6.00	7.50	7.50	5.00	7.25	4.25	8.75	6.75	8.00	4.75	7.00	4.00	8.00
	3.75	5.50	5.25	6.75	3.50	4.00	2.50	5.75	8.00	9.00	6.00	8.25	4.00	4.00	3.25	5.50
	3.75	7.00	6.00	6.25	4.50	7.00	6.75	8.00	6.00	10.00	3.75	4.00	5.00	6.50	4.75	6.00
	6.25	8.25	8.25	8.00	4.25	6.75	6.75	11.00	4.00	5.25	6.75	9.00	6.25	8.25	3.00	6.75
	3.75	2.75	6.25	7.25	3.75	3.00	5.00	6.50	4.00	2.00	5.25	7.50	5.50	5.50	4.25	5.25
	5.25	8.75	6.00	8.25	4.00	7.25	3.50	4.00	6.00	9.00	5.00	9.25	4.00	2.50	4.00	6.75
	6.25	7.00	4.00	8.25	5.75	4.00	3.75	7.00	4.25	7.50	7.00	9.00	4.00	3.00	5.00	7.75
	5.75	7.00	5.00	4.50	4.00	5.25	4.00	7.25	6.00	8.50	4.75	6.25	4.25	2.00	3.00	3.00
	4.75	5.25	4.25	6.25	3.00	4.00	4.00	7.25	6.00	7.25	5.00	6.50	5.00	7.75	4.00	3.75
	7.00	9.25	7.75	5.00	5.25	6.75	2.75	3.00	4.25	4.75	3.50	8.00	5.00	6.00	4.75	7.50
	6.25	7.75	5.75	9.00	3.50	3.75	4.00	9.25	5.00	5.00	7.00	7.25	5.00	6.75	4.25	4.25
	5.00	5.00	6.25	9.25	4.00	6.00	4.75	6.00	5.00	5.00	7.25	9.25	4.00	7.00	4.25	6.50
	13.00	9.00	3.75	7.75	3.50	5.25	3.75	9.25	5.25	8.00	3.75	7.00	4.25	5.75	4.75	5.25
	5.50	6.25	4.00	7.00	3.50	4.25	7.00	7.25	6.50	7.50	4.00	6.00	4.75	7.75	3.00	2.25
	3.75	7.00	4.25	6.00	3.75	2.75	4.50	8.00	5.00	8.00	5.25	4.00	5.75	8.00	3.00	3.00
	4.50	8.25	6.50	8.25	5.00	7.50	3.75	5.00	5.00	7.75	5.25	8.00	5.25	3.75	4.00	1.25
	9.25	8.00	6.75	5.75	4.75	8.00	5.00	9.25	6.25	7.25	6.00	7.50	4.00	6.00	3.25	4.75
Totals	137.75	179.00	134.25	164.00	108.25	139.50	112.00	170.00	132.00	185.75	130.00	183.00	110.50	145.00	106.25	139.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction.	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	10.00	154.35	9.50	47.50	8.50	131.19	11.00	55.00	9.25	142.77	10.00	50.00	9.75	150.49	8.25	41.25
Lowest	3.25	50.16	2.75	13.75	2.50	38.59	2.00	10.00	2.50	38.59	2.00	10.00	2.75	42.15	1.25	6.25
Average	5.44	83.96	6.80	34.00	4.40	67.91	6.19	30.95	5.36	82.73	7.38	36.90	4.34	66.99	5.49	27.45
Tests above average.....	23		29		18		27		31		30		20		28	
Tests below average.....	27		21		32		23		30		20		29		22	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

TEXAS.

RAMS, 2 YEARS OLD.

Catalogue number of samples..	617.				618.				619.				620.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	4.25	5.25	6.375	7.00	8.625	5.375	6.375	1.875	3.00	3.25	3.375	2.25	6.00	7.75	9.00	3.25
	4.50	8.00	5.375	4.875	13.00	6.75	9.00	5.375	8.75	6.25	7.25	4.50	3.00	1.75	3.25	1.25
	4.25	5.75	5.00	6.875	6.375	4.75	7.25	4.00	4.375	3.25	5.50	5.25	5.75	4.25	3.00	3.25
	4.875	6.50	3.00	4.875	6.125	4.00	4.875	3.875	2.375	5.00	1.375	1.25	4.75	5.00	9.00	7.25
	3.75	5.75	3.50	6.00	8.75	5.75	10.50	6.25	3.50	2.75	1.625	1.00	5.75	3.00	11.75	9.25
	2.25	5.50	4.00	4.75	8.875	7.00	6.50	7.00	3.625	3.50	4.00	7.25	6.75	7.25	6.00	1.00
	3.50	6.50	3.25	5.25	8.75	5.00	5.00	5.50	4.75	5.00	2.625	3.00	7.00	6.75	7.75	7.75
	3.00	5.50	4.625	8.00	6.875	7.00	4.00	6.50	6.00	6.50	2.375	3.25	7.00	4.00	7.25	8.25
	3.75	7.875	4.75	5.00	5.125	3.00	8.125	7.00	2.75	2.75	3.00	2.75	3.00	2.00	6.75	5.25
	2.75	6.00	3.875	4.75	5.25	5.50	7.125	4.00	3.00	4.00	4.50	6.75	6.50	8.00	4.25	2.00
	3.50	5.00	6.25	6.50	10.00	5.25	4.00	2.00	4.625	4.75	7.00	7.00	6.00	6.25	6.00	2.50
	4.00	7.75	6.25	5.75	5.25	2.00	4.00	6.00	3.625	4.50	2.375	7.25	3.75	3.50	6.00	6.00
	3.25	6.00	4.25	5.00	3.875	5.00	7.75	5.00	4.50	4.75	4.75	3.75	6.75	6.50	3.00	2.00
	3.25	5.75	4.50	4.00	10.00	4.50	5.00	1.875	1.50	1.00	3.50	2.25	4.00	6.00	4.75	4.00
	3.75	7.50	5.25	4.75	7.25	5.125	6.00	6.875	3.625	4.50	3.375	1.25	2.00	1.00	6.75	4.25
	3.00	5.00	3.75	6.50	6.00	5.75	5.00	2.25	4.25	6.25	3.00	1.75	5.75	4.00	8.00	5.00
	5.375	6.00	3.50	4.875	6.00	2.50	3.00	3.00	4.375	6.00	1.625	1.00	7.25	7.00	4.25	4.75
	3.25	6.875	6.25	5.75	6.50	5.00	4.00	4.75	5.625	4.75	2.625	2.25	5.75	4.00	5.00	2.75
	4.875	4.50	4.25	6.00	7.75	6.75	4.00	3.875	3.375	3.00	1.625	3.00	5.75	6.00	6.00	1.75
	3.00	5.50	4.00	5.625	9.75	4.25	3.00	5.25	3.375	4.25	3.375	1.50	5.25	4.00	3.50	2.00
	3.75	6.50	2.875	4.75	6.125	5.25	3.00	2.75	3.375	5.75	4.25	4.75	7.25	3.00	6.00	7.00
	5.50	6.50	2.625	4.00	6.00	6.50	6.25	4.00	4.375	6.00	4.00	3.25	5.25	4.25	3.75	5.00
	5.75	6.25	3.50	5.50	7.00	5.25	3.875	4.875	3.75	5.75	4.75	3.00	6.00	4.00	4.00	7.00
	3.00	5.00	6.00	5.25	5.00	2.00	12.25	7.00	2.625	1.00	5.375	3.00	6.00	7.50	6.50	7.50
	4.625	5.25	4.00	5.125	5.125	1.25	4.00	5.25	1.625	1.25	1.625	3.25	9.50	5.00	6.00	5.50
Totals	96.75	152.00	111.00	136.75	179.375	120.50	143.875	116.125	96.75	105.75	88.875	85.50	141.75	121.75	147.50	115.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	6.375	98.40	8.00	40.00	13.00	200.65	7.00	35.00	8.75	135.05	7.25	36.25	11.75	281.36	9.25	46.25
Lowest	2.25	34.75	4.00	20.00	3.00	46.30	1.25	6.25	1.375	21.23	1.00	5.00	2.00	30.87	1.00	5.00
Average	4.16	64.21	5.78	28.90	6.45	99.55	4.73	23.65	3.71	57.26	3.83	19.15	5.79	89.37	4.75	23.75
Tests above average	22		20		21		31		21		23		27		14	
Tests below average	28		30		29		19		29		27		23		28	

TEXAS.

RAMS, 2 YEARS OLD.

Catalogue number of samples..	621.				622.				623.				624.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	4.00	4.00	4.00	4.00	8.75	4.75	5.25	2.25	4.375	3.25	2.25	1.50	4.50	7.875	2.75	7.00
	5.50	3.00	4.75	4.00	6.375	2.25	7.50	3.00	3.625	3.50	3.625	6.50	3.75	7.00	7.125	7.75
	4.00	4.00	5.00	5.00	2.75	2.00	6.75	4.25	3.375	5.75	5.00	6.75	3.50	8.75	4.875	7.875
	3.25	5.25	5.00	5.75	3.75	4.00	4.75	3.25	5.625	6.25	2.625	2.75	6.75	9.25	6.125	7.25
	7.00	3.75	6.00	6.50	6.00	4.25	5.00	1.25	5.625	6.00	4.375	5.25	8.375	8.25	5.00	7.25
	2.00	3.00	4.50	6.00	5.00	7.25	4.25	8.25	4.625	4.00	3.00	3.00	4.75	7.00	5.50	4.50
	2.50	3.00	6.75	6.00	5.75	5.00	5.625	6.75	7.625	5.00	2.25	4.75	4.25	4.75	9.75	7.00
	2.625	4.00	4.50	6.50	4.75	7.75	10.25	8.50	2.625	4.00	3.375	1.75	4.25	5.50	2.25	7.00
	5.50	3.25	6.25	5.50	6.50	7.25	3.375	7.25	5.625	6.75	3.00	4.75	3.25	6.25	2.00	3.00
	4.25	6.50	5.25	5.00	3.375	3.25	5.625	3.00	2.625	2.00	6.375	7.75	3.00	7.00	4.00	6.00
	3.50	5.00	5.25	5.25	3.375	5.75	3.625	1.25	3.375	2.00	3.00	3.25	8.25	6.25	6.25	7.75
	4.00	7.375	3.75	3.00	5.375	4.00	2.75	3.25	5.625	3.00	3.00	4.25	5.50	8.75	4.50	2.25
	6.125	6.00	4.50	5.50	4.00	6.25	5.25	7.25	2.75	4.00	2.625	4.75	5.875	7.00	7.50	7.00
	8.50	7.50	2.75	7.00	6.00	7.00	5.00	7.25	2.75	4.25	3.625	5.50	6.25	7.25	3.50	4.00
	3.25	4.00	4.25	6.00	3.375	1.75	3.00	4.75	2.75	1.25	3.625	4.25	5.25	7.00	2.75	7.75
	10.75	6.75	4.50	2.75	4.50	5.25	5.625	2.50	2.50	5.50	7.625	6.00	9.75	7.50	7.50	8.00
	7.00	6.00	3.75	5.00	1.625	1.25	3.625	3.75	3.75	3.75	3.50	3.00	8.125	6.50	3.00	5.75
	6.50	3.00	3.375	7.50	3.375	1.75	3.375	4.25	4.25	1.25	3.375	5.00	8.00	7.00	3.50	5.00
	4.00	5.25	3.375	7.00	9.00	6.00	3.375	5.00	2.625	1.25	2.00	2.25	4.50	6.50	4.00	8.25
	5.00	4.25	4.00	5.875	6.25	4.00	3.625	1.00	5.625	4.75	3.625	4.00	5.00	7.75	4.75	3.00
	3.75	4.75	3.00	4.50	4.625	1.00	5.625	3.75	4.375	4.25	2.625	1.50	7.00	7.00	7.00	7.25
	7.50	6.75	4.50	5.50	5.50	3.00	5.50	2.00	2.75	2.75	3.375	2.00	3.00	5.875	9.00	8.00
	4.75	4.00	3.50	6.25	6.375	6.25	5.375	4.00	4.00	3.75	2.375	2.50	2.50	6.50	8.00	6.50
	5.25	5.50	6.25	4.25	3.375	2.25	4.00	6.75	2.375	2.50	4.625	8.25	4.00	7.00	6.50	8.25
	5.75	7.25	5.25	6.875	5.625	5.00	5.625	6.75	3.375	2.50	7.00	6.25	3.00	5.25	4.00	8.00
Totals	126.25	123.125	114.00	136.50	125.375	108.25	113.75	111.25	98.50	93.50	91.875	107.25	132.375	174.75	131.125	161.375

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	10.75	165.92	7.50	37.50	10.25	158.21	8.50	42.50	7.625	117.69	8.25	41.25	9.75	150.49	9.25	46.25
Lowest	2.00	30.87	2.75	13.75	1.625	25.08	1.00	5.00	2.00	30.869	1.25	6.25	2.00	30.87	2.25	11.25
Average	4.80	74.09	5.19	25.95	4.78	73.778	4.39	21.95	3.81	58.80	4.02	20.10	5.27	81.34	6.72	33.60
Tests above average	21		27		27		22		17		23		21		32	
Tests below average	29		23		23		28		33		27		29		18	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

TEXAS.

Catalogue number of samples..	RAMS, 2 YEARS OLD. 625.				EWES, 2 YEARS OLD. 605.				606.				607.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	mm.	grams.	mm.	grains.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grains.	mm.	grams.	mm.
	4.375	4.25	7.00	8.00	5.125	6.00	2.00	5.25	5.00	9.00	4.25	6.00	5.000	8.375	5.625	5.25
	4.75	4.75	3.625	4.75	3.25	5.00	4.00	5.875	4.00	6.125	5.375	5.125	4.375	8.00	3.00	6.75
	4.75	3.00	3.00	5.75	5.50	7.00	3.50	4.25	5.50	7.50	3.375	7.00	2.25	4.75	3.375	6.125
	4.625	4.75	3.75	5.25	3.375	3.25	4.75	6.00	4.625	7.00	4.375	8.50	4.50	7.50	5.00	7.125
	2.375	2.25	1.625	2.50	2.75	6.75	3.00	3.75	3.625	7.00	7.50	8.00	3.00	6.50	3.50	6.375
	2.50	3.00	3.00	3.00	3.75	6.25	3.00	4.75	4.375	4.50	4.625	5.50	3.625	5.50	3.50	7.375
	5.375	5.00	4.25	5.25	3.50	8.00	3.25	5.75	3.75	6.25	2.50	4.875	5.75	6.25	5.50	7.125
	4.375	4.00	6.50	6.25	3.875	7.25	3.25	3.25	5.375	7.25	2.25	5.00	5.75	7.00	4.50	6.125
	4.375	5.25	1.75	2.00	2.375	5.875	4.625	6.25	4.00	4.25	4.375	3.00	3.25	4.875	4.25	6.75
	3.375	1.00	4.50	4.75	4.50	3.75	4.625	5.50	4.25	5.25	3.25	3.375	3.375	6.00	9.50	5.00
	3.625	4.25	2.625	4.00	6.00	8.00	3.00	5.00	3.00	4.75	5.25	6.75	4.50	5.00	6.25	4.75
	2.75	2.50	3.375	1.25	5.00	8.00	4.25	8.25	4.625	7.00	2.625	3.75	3.00	5.00	5.50	6.75
	2.25	1.50	3.25	4.00	7.00	7.75	3.00	4.875	4.00	7.00	2.50	4.75	4.875	7.00	7.25	7.00
	1.75	2.25	4.50	3.00	4.00	8.00	7.25	7.50	2.375	5.50	4.625	6.00	4.50	5.25	3.00	6.25
	1.375	2.25	3.625	7.00	3.25	6.75	4.25	8.125	4.00	5.25	6.00	5.50	5.00	6.50	6.00	6.00
	5.375	4.75	4.50	6.00	2.50	7.50	4.375	5.875	5.375	5.50	3.50	6.75	4.00	5.00	4.75	6.00
	5.25	5.25	2.50	1.75	3.00	4.75	2.625	5.50	2.625	2.25	5.625	6.75	5.75	7.75	3.50	6.50
	5.00	4.75	4.00	5.75	2.875	7.00	7.50	6.00	5.00	5.50	7.00	6.75	5.50	5.00	2.50	5.00
	3.00	3.75	2.25	1.00	3.25	9.25	3.00	6.00	4.625	7.50	3.625	6.25	4.25	5.875	4.25	6.00
	5.00	7.75	2.625	1.50	4.375	5.25	2.00	7.75	4.00	2.00	3.625	4.25	5.375	6.00	6.125	5.25
	2.25	1.25	4.50	4.75	5.50	6.375	2.25	7.50	3.625	7.00	6.00	7.25	3.00	4.125	6.50	5.875
	6.50	4.00	2.25	1.50	3.625	4.625	8.25	6.25	3.375	7.00	3.625	3.25	4.00	7.25	3.00	6.75
	4.00	3.25	2.00	2.50	2.625	7.875	3.75	8.00	2.625	5.25	4.375	5.00	5.75	7.00	4.75	5.75
	1.75	1.25	2.50	2.50	4.75	7.00	4.00	8.00	5.625	7.00	4.00	2.25	4.00	6.125	5.375	6.00
	4.625	4.00	2.625	3.75	5.75	8.75	4.375	5.875	2.75	6.50	6.625	6.00	3.75	7.00	6.00	5.25
Totals	95.375	87.00	86.125	120.00	99.50	139.00	100.875	161.125	105.125	150.125	107.875	170.125	111.125	154.125	124.00	150.375

Recapitulation and reduction:	Strain. grams.	Strain. grains.	Stretch. mm.	Stretch. per ct.	Strain. grams.	Strain. grains.	Stretch. mm.	Stretch. per ct.	Strain. grams.	Strain. grains.	Stretch. mm.	Stretch. per ct.	Strain. grains.	Strain. grains.	Stretch. mm.	Stretch. per ct.
Highest	7.00	108.04	2.50	48.00	8.25	127.36	8.75	43.75	8.00	123.48	9.00	45.00	2.50	146.63	8.00	40.00
Lowest	1.375	21.23	1.00	5.00	2.00	30.87	3.25	16.25	2.25	34.73	2.25	11.25	2.25	34.73	3.00	15.00
Average	3.63	56.03	3.74	18.70	4.00	61.74	6.51	32.55	4.26	65.75	6.405	32.025	4.792	73.96	6.092	30.46
Tests above average	22		27		20		20		24		21		23		25	
Tests below average	28		23		27		30		26		29		27		25	

TEXAS.

Catalogue number of samples..	EWES, 2 YEARS OLD. 608.				609.				610.				611.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	4.00	7.75	3.25	2.25	7.625	7.25	2.25	4.875	4.00	5.50	4.00	8.00	4.00	3.75	3.00	7.00
	4.00	9.00	3.00	3.50	1.875	6.25	3.50	3.875	6.375	7.75	5.50	7.50	5.00	7.00	2.50	3.75
	7.00	7.00	3.25	5.75	4.25	6.75	3.50	5.25	6.25	7.50	4.375	6.50	3.25	8.25	2.75	3.00
	5.50	6.75	4.00	5.00	4.00	6.75	2.25	5.00	6.625	5.75	6.625	6.50	3.00	4.50	7.00	6.50
	3.75	5.00	4.50	7.00	5.75	5.00	2.50	6.00	6.625	5.75	3.625	3.00	6.00	8.00	4.00	5.25
	3.00	4.00	3.00	3.50	7.50	7.25	3.75	7.00	7.50	7.50	3.375	6.75	4.00	7.25	3.75	5.00
	3.50	3.50	2.50	4.75	6.25	4.00	2.375	4.00	5.375	6.25	4.00	5.22	4.00	4.25	2.75	3.75
	6.25	5.00	3.75	5.50	3.50	5.00	4.75	7.75	5.375	9.75	4.625	6.25	3.00	5.25	3.00	6.75
	3.00	4.00	6.00	6.50	4.50	4.50	2.25	4.25	4.25	6.75	4.50	7.50	5.50	7.00	4.00	5.50
	4.00	3.25	4.00	9.00	7.00	6.75	4.25	6.75	5.625	8.25	4.625	6.00	10.25	8.50	3.50	6.25
	6.75	7.25	5.00	9.00	10.00	6.875	4.00	5.25	4.00	12.00	4.50	6.50	5.50	5.00	4.00	4.75
	3.00	1.75	5.00	5.75	4.375	4.875	4.25	5.00	4.25	7.75	4.625	6.00	4.00	5.25	3.50	6.50
	5.25	7.00	5.00	6.75	1.75	4.25	8.50	7.625	4.625	7.25	5.375	14.25	4.00	6.50	4.50	5.50
	5.00	7.00	8.25	7.00	5.375	6.25	3.00	5.25	5.625	4.00	13.25	6.25	3.00	6.25	4.00	7.25
	7.50	6.00	5.00	4.25	2.25	6.00	2.75	5.00	4.75	5.50	4.375	2.50	5.50	6.00	3.50	8.25
	5.25	6.25	5.50	5.75	3.375	7.50	5.375	7.75	5.75	5.75	4.375	2.25	7.00	8.00	5.00	9.75
	7.00	5.75	5.50	6.25	6.375	7.00	2.375	4.875	5.375	8.00	6.375	6.25	3.25	8.00	7.00	6.25
	4.00	6.50	5.50	6.50	6.25	7.25	2.00	5.625	9.375	9.00	4.625	8.50	2.50	4.00	3.75	3.75
	7.50	8.25	6.75	7.00	2.375	3.25	2.50	7.875	3.375	5.25	3.375	2.25	3.25	3.25	6.00	6.75
	3.75	7.00	4.75	5.00	6.75	7.75	1.625	4.00	4.00	6.125	4.625	8.50	5.50	6.75	2.50	4.75
	4.00	5.50	4.00	3.00	4.00	4.00	3.00	6.25	4.375	7.00	6.00	6.50	2.50	6.50	3.00	8.00
	3.50	7.00	4.50	7.00	2.25	4.00	2.75	5.125	6.375	7.75	4.375	9.25	3.00	2.50	5.00	7.50
	4.25	7.25	3.00	2.75	2.25	6.75	4.00	7.25	3.75	2.125	5.375	7.75	6.00	7.00	3.75	3.00
	6.00	5.00	6.00	5.75	6.875	6.875	8.375	7.125	5.375	5.50	4.375	7.25	4.75	5.50	6.50	9.00
	3.75	5.25	4.00	9.50	3.00	7.00	3.25	4.00	3.25	8.25	4.625	8.50	5.50	8.00	6.00	7.00
Totals	128.25	151.00	116.00	142.00	118.50	152.125	91.125	145.25	135.75	174.00	120.00	172.75	129.00	149.25	105.75	155.25

Recapitulation and reduction:	Strain. grams.	Strain. grains.	Stretch. mm.	Stretch. per ct.	Strain. grams.	Strain. grains.	Stretch. mm.	Stretch. per ct.	Strain. grams.	Strain. grains.	Stretch. mm.	Stretch. per ct.	Strain. grains.	Strain. grains.	Stretch. mm.	Stretch. per ct.
Highest	8.25	127.34	9.50	47.50	10.00	154.35	8.00	40.00	13.25	204.50	14.25	71.25	10.25	158.21	9.75	48.75
Lowest	2.50	38.59	1.75	8.75	1.625	25.08	3.00	15.00	3.375	52.09	2.25	11.25	2.50	38.59	2.50	12.50
Average	4.72	72.85	5.92	29.60	4.198	64.72	5.948	29.74	5.13	79.18	6.94	34.70	4.52	70.26	6.09	30.45
Tests above average	22		26		21		29		26		25		20		28	
Tests below average	28		24		29		20		28		25		30		22	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

TEXAS.

EWES, 2 YEARS OLD.

Catalogue number of samples..	612.				613.				614.				615.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	5.75	5.00	2.875	6.00	7.375	9.00	5.50	5.25	5.00	6.50	6.00	7.00	3.875	6.50	1.75	3.50
	4.25	4.875	4.00	6.75	3.625	7.00	4.625	4.50	7.00	7.00	3.50	7.50	6.50	6.75	3.00	5.75
	4.25	7.00	3.75	8.00	4.75	11.00	5.375	7.50	3.75	6.25	3.25	7.00	3.50	4.875	2.625	6.75
	5.625	4.50	4.50	4.00	4.375	6.25	5.375	6.25	6.00	7.00	4.00	2.00	3.50	3.00	4.25	8.25
	3.625	6.125	4.125	7.25	4.625	8.25	6.00	8.75	4.25	7.50	5.75	5.75	6.25	5.875	3.625	5.00
	3.25	7.125	2.50	3.50	3.375	6.75	3.625	2.25	4.00	5.75	4.00	5.25	3.875	3.25	2.375	4.00
	6.50	5.00	4.75	7.00	5.375	10.50	4.00	7.25	3.25	5.00	6.00	6.75	3.875	4.50	5.375	7.00
	2.875	4.875	2.50	4.875	5.00	8.00	5.375	7.75	3.50	5.25	5.25	8.00	2.375	4.00	6.50	8.00
	5.25	7.00	6.00	5.00	5.375	7.50	3.375	7.50	3.00	5.25	4.00	3.75	5.375	4.875	2.25	3.875
	6.00	4.00	4.625	6.00	5.50	8.25	5.375	8.00	3.00	4.75	6.00	8.00	6.50	5.00	4.25	6.25
	4.50	3.00	5.00	7.125	3.625	7.00	5.625	7.00	5.75	7.00	3.50	5.50	2.25	2.25	3.875	5.125
	5.75	3.00	4.00	3.25	5.625	9.00	6.125	7.75	3.00	5.25	5.50	7.50	5.625	6.50	4.25	6.25
	4.00	3.125	3.375	7.00	3.375	1.75	7.375	7.75	4.50	4.00	3.25	2.50	4.625	3.50	9.50	7.75
	3.00	5.00	3.25	6.00	4.75	6.50	3.75	6.125	5.50	4.00	3.75	7.00	2.75	3.50	3.50	3.875
	6.50	7.00	2.75	4.00	5.375	7.50	5.00	9.50	3.25	5.75	3.50	5.25	10.00	7.875	2.25	3.25
	3.25	6.00	3.625	6.00	5.375	7.25	4.625	5.00	6.25	7.00	3.25	7.00	2.00	3.25	2.75	3.75
	5.25	6.875	2.875	6.00	4.375	7.00	3.625	4.50	4.00	6.00	4.50	4.50	6.00	5.50	3.50	4.50
	5.375	8.00	4.25	7.375	6.25	9.00	5.375	7.00	3.75	7.75	5.25	8.25	3.00	3.50	2.75	4.875
	3.25	4.875	3.625	7.00	5.25	9.50	4.00	7.75	5.00	7.00	8.50	8.00	4.25	3.75	4.875	3.50
	3.75	6.00	2.50	6.25	6.375	8.75	3.625	4.25	8.00	8.00	5.50	3.00	3.25	6.00	6.00	7.25
	4.50	5.75	2.625	6.00	6.25	7.00	3.625	6.75	6.50	8.00	3.00	3.00	3.00	4.75	3.00	3.50
	3.50	7.50	2.50	5.50	4.00	8.25	5.375	7.00	6.00	8.00	5.00	8.25	3.50	4.875	2.00	4.50
	4.25	8.00	4.50	6.00	5.00	6.00	3.625	1.50	8.00	4.00	6.00	7.75	2.25	5.25	2.25	2.875
	4.00	6.125	2.50	5.125	5.00	9.75	4.375	8.00	4.75	5.75	2.75	2.75	2.25	3.75	3.25	4.00
	2.75	2.75	3.125	3.00	7.00	6.50	5.375	8.00	6.00	4.00	4.00	3.75	4.625	4.25	9.375	8.875
Totals	111.00	128.50	90.25	144.00	127.00	193.25	114.375	232.875	123.00	151.75	115.00	145.00	105.50	117.125	99.125	127.75

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	6.50	100.325	8.00	40.00	7.375	113.83	11.00	55.00	8.50	131.194	8.25	41.25	10.00	154.346	8.25	41.25
Lowest	2.50	38.59	2.75	13.75	3.375	52.09	1.50	7.50	2.75	42.44	2.00	10.00	1.75	27.017	2.25	11.25
Average	4.03	62.201	5.45	27.25	4.828	74.518	7.12	35.60	4.76	73.47	5.93	29.65	4.092	95.938	4.896	24.48
Tests above average	22		30		28		27		23		26		19		21	
Tests below average	[illegible]		20		22		23		27		24		31		[illegible]	

CALIFORNIA.

RAMS, 2 YEARS OLD.

Catalogue number of samples..	634.				635.				636.				637.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	[illegible]	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	[illegible]
Actual measurement in grams and millimeters.	6.75	7.00	3.625	7.875	3.50	8.00	3.25	7.00	1.75	2.50	4.75	8.50	3.625	7.75	5.00	2.25
	2.875	6.50	2.375	7.00	3.75	8.25	3.25	8.50	5.00	8.25	2.75	8.25	4.375	7.75	3.00	9.25
	4.125	7.125	5.625	5.00	3.50	8.50	4.00	3.50	3.25	6.75	5.00	6.25	2.75	1.75	4.625	9.25
	3.25	8.00	2.50	8.125	3.75	8.25	3.00	6.25	3.625	8.75	8.375	8.00	4.375	8.75	4.375	8.75
	4.75	8.00	4.50	7.75	3.25	8.25	3.75	5.00	5.25	7.00	2.25	6.75	3.00	4.75	4.00	7.75
	4.00	8.00	5.00	9.00	4.00	9.00	5.00	8.00	4.375	6.25	2.375	7.25	4.00	8.00	3.00	7.25
	4.00	7.125	5.625	7.00	4.00	9.00	3.75	7.00	3.625	6.75	7.00	4.25	2.50	2.50	3.375	9.50
	5.75	7.00	3.625	7.00	6.25	8.75	3.50	9.50	5.625	6.25	6.625	8.00	5.00	7.75	4.625	7.00
	4.375	7.75	3.625	8.00	5.25	7.00	4.50	9.00	8.75	7.25	5.375	5.75	2.375	2.00	6.00	9.00
	3.75	8.00	3.00	8.00	3.75	5.25	4.00	9.50	2.30	7.00	5.75	5.75	5.625	9.00	4.375	7.50
	3.00	7.875	2.50	6.125	3.25	5.50	5.50	7.50	4.75	8.00	5.00	5.50	6.625	9.75	3.375	9.50
	4.75	9.00	5.50	5.00	5.50	4.50	3.50	3.75	10.00	8.50	5.00	6.00	5.375	6.50	6.625	9.25
	5.50	4.25	2.75	7.00	3.50	6.00	4.75	8.50	5.75	6.25	4.375	7.25	3.625	9.75	5.625	10.00
	4.00	7.875	2.50	5.25	5.00	8.25	3.25	7.75	8.375	5.50	4.00	5.25	3.625	7.00	2.625	7.00
	8.375	9.00	3.125	8.00	4.50	5.75	4.00	8.25	5.00	7.50	12.75	7.50	4.375	7.50	2.625	8.75
	1.75	3.875	3.625	7.00	3.50	9.00	4.50	8.75	1.625	2.50	4.625	6.50	2.625	8.00	3.625	5.25
	3.50	8.75	3.125	8.00	3.25	6.00	4.00	8.00	8.50	7.50	7.625	4.00	3.625	8.00	3.375	9.25
	4.125	8.00	3.00	7.625	6.25	8.75	3.50	8.75	4.00	3.50	4.75	6.75	5.375	7.00	4.625	8.50
	3.00	8.00	3.50	8.00	5.00	8.25	4.50	9.00	5.375	7.25	5.625	7.75	3.375	8.50	2.625	6.00
	5.00	8.875	3.375	6.875	6.00	7.75	5.50	7.00	6.50	4.75	3.625	4.00	2.625	7.00	4.75	9.00
	4.625	6.50	3.50	8.50	5.25	8.00	5.00	7.50	3.625	5.25	4.625	6.50	2.625	7.75	2.625	2.25
	2.75	7.25	3.00	7.50	4.50	9.00	5.00	7.50	6.625	8.50	9.625	7.50	2.25	3.50	4.00	8.25
	6.25	8.00	3.50	8.875	2.50	3.00	3.00	3.00	9.375	9.00	2.625	5.75	3.375	4.50	6.625	9.50
	6.125	6.00	5.00	7.75	3.25	6.50	7.25	9.75	4.625	9.50	4.625	6.75	3.00	7.50	3.75	8.50
	2.50	7.50	2.75	7.00	3.75	8.25	3.00	8.00	6.375	7.00	5.625	7.75	5.375	6.75	4.375	8.50
Totals	108.625	185.25	88.25	183.25	106.00	187.00	101.25	186.25	134.25	168.25	134.75	163.25	95.50	169.00	103.625	197.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	8.375	129.26	9.00	45.00	6.25	96.47	9.75	48.75	12.75	196.79	9.50	47.50	6.625	102.25	10.00	50.00
Lowest	1.75	27.01	3.875	19.375	2.50	38.59	3.00	15.00	1.625	25.08	2.50	12.50	2.25	34.73	1.75	8.75
Average	3.94	60.81	7.37	36.85	4.15	64.05	7.43	37.15	5.38	83.04	6.63	33.15	3.98	61.43	7.33	36.65
Tests above average	21		29		20		32		[illegible]		29		24		32	
Tests blow average	29		21		30		[illegible]		31		21		26		[illegible]	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

CALIFORNIA.

Catalogue number of samples..	RAMS, 2 YEARS OLD.												EWES, 2 YEARS OLD.			
	638.				639.				640.				626.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	3.50	8.50	8.50	6.875	6.25	6.25	3.00	8.50	9.00	9.875	8.50	7.75	3.25	2.00	4.75	5.00
	4.25	12.00	11.50	6.50	4.00	8.00	2.75	6.25	6.00	7.875	3.375	8.25	3.50	2.50	3.00	3.00
	6.25	7.50	13.25	8.875	4.00	8.375	3.875	8.00	5.00	0.875	5.375	7.75	2.75	2.25	3.25	2.25
	3.50	7.625	8.00	7.25	2.875	6.00	3.25	7.50	3.00	5.00	3.50	8.75	2.75	1.50	3.75	4.00
	3.75	6.00	4.25	5.75	6.00	7.00	5.25	7.50	4.375	8.50	3.75	7.50	2.75	4.75	3.50	4.50
	3.375	8.00	4.625	7.25	5.25	8.00	2.625	6.25	4.00	7.75	5.00	9.00	3.25	3.00	3.00	2.00
	4.75	9.00	9.875	9.50	2.625	7.00	4.125	7.00	7.125	9.25	7.50	9.50	2.75	2.00	4.00	4.00
	4.75	3.50	3.50	8.875	2.25	5.875	3.00	7.75	6.75	8.875	5.625	5.75	4.00	3.50	3.00	3.00
	4.75	8.25	2.375	9.00	6.00	7.00	3.125	7.50	6.375	9.875	3.875	8.50	3.00	2.00	2.50	4.50
	6.25	6.00	6.875	8.00	3.50	8.00	5.00	7.00	6.00	8.00	7.625	8.25	4.00	3.00	4.00	4.75
	2.00	4.00	3.50	6.25	8.00	6.875	2.625	6.00	7.125	8.75	4.625	7.125	2.75	3.25	3.25	4.75
Actual measurement in grams and millimeters.	3.75	9.00	4.25	6.50	2.375	7.00	5.125	8.00	9.50	8.875	3.50	7.00	3.00	2.00	3.00	3.00
	4.125	7.50	3.50	8.75	5.00	8.625	3.00	4.875	6.25	8.00	3.25	6.75	3.00	7.00	3.00	4.00
	3.375	5.75	2.75	8.875	3.00	7.25	3.00	6.50	3.625	8.50	3.375	2.50	3.00	3.75	3.00	1.50
	4.25	6.00	0.375	5.50	5.75	8.00	4.00	7.375	3.375	6.00	6.75	7.75	3.00	2.75	3.00	2.00
	3.25	8.75	3.375	8.00	3.25	7.00	3.50	7.75	6.50	7.75	5.00	9.50	4.25	2.50	4.50	3.00
	5.00	8.00	2.625	7.875	3.50	7.50	3.125	8.00	3.00	6.00	3.75	6.25	3.00	2.25	4.00	2.50
	6.25	9.50	2.625	8.875	3.50	8.50	6.375	8.00	2.75	8.00	5.625	8.00	3.00	3.00	3.75	3.00
	3.25	8.00	4.375	7.00	4.125	6.00	6.00	7.00	5.00	6.75	10.25	8.00	5.00	4.25	5.50	7.00
	5.125	7.50	1.75	5.00	3.375	7.00	3.75	8.00	6.375	7.75	7.75	9.00	4.00	4.75	3.25	2.50
	3.00	4.00	13.00	8.875	3.00	6.25	3.00	7.375	4.375	9.875	2.75	8.125	3.00	3.25	3.00	2.00
	4.00	8.50	5.25	8.25	4.75	6.50	2.50	7.75	5.50	9.875	6.25	9.00	2.75	1.50	4.25	5.00
	5.50	5.25	2.50	7.75	2.625	7.50	2.50	8.25	2.25	9.25	3.25	5.00	3.25	3.00	3.00	2.75
	14.375	8.375	2.75	7.25	4.25	8.50	4.00	8.00	7.375	7.50	3.50	8.75	4.50	4.25	3.50	3.25
	6.25	6.50	7.625	7.75	4.00	8.75	3.875	7.00	5.375	7.00	5.25	7.00	4.00	4.00	2.00	4.75
Totals	117.625	179.00	132.50	190.00	100.75	182.75	98.375	183.125	136.50	201.75	129.00	192.75	85.00	78.00	81.50	90.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	13.25	204.51	10.00	50.00	8.00	123.48	8.75	43.75	10.25	158.20	9.875	49.375	5.00	92.608	7.00	35.00
Lowest	1.75	27.01	3.50	17.50	2.25	34.73	4.875	24.375	2.25	34.73	5.00	25.00	2.00	30.87	1.50	7.50
Average	5.00	77.17	7.38	36.90	3.94	60.81	7.32	36.60	5.31	81.96	7.89	39.45	3.23	51.39	3.36	16.80
Tests above average	16		29		21		27		24		25		18		20	
Tests below average	33		21		29		23		26		25		32		[illegible]	

CALIFORNIA.

Catalogue number of samples..	EWES, 2 YEARS OLD.															
	627.				628.				629.				630.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	7.25	5.25	5.00	4.50	0.75	2.00	2.00	8.75	3.00	9.75	2.75	7.00	5.50	9.00	4.00	10.25
	4.00	2.00	3.75	6.00	1.625	7.25	2.00	8.00	4.25	9.25	3.50	9.00	2.25	6.50	2.00	8.00
	5.00	4.75	3.00	4.75	1.75	5.50	2.50	8.50	2.25	8.25	3.00	8.50	5.00	9.00	3.25	8.75
	5.25	5.75	3.00	4.75	3.625	8.50	2.625	10.25	3.50	10.00	4.00	7.00	4.00	9.00	3.25	8.00
	4.25	4.25	4.00	4.25	2.50	1.75	2.50	8.00	2.25	5.25	3.50	9.50	3.25	9.00	2.75	8.50
	6.00	5.00	3.00	5.00	1.625	3.75	1.625	7.50	5.50	8.00	3.50	10.00	3.50	4.25	3.00	8.00
	5.00	5.50	3.00	2.00	3.375	8.25	5.25	8.00	4.50	8.25	3.50	8.00	3.75	5.00	3.00	8.25
	4.50	7.00	3.00	5.75	1.625	6.50	3.25	8.50	3.00	7.50	3.50	6.50	3.50	9.00	3.00	8.00
	3.00	1.25	4.00	5.75	4.625	6.75	2.25	7.25	3.00	9.75	3.75	9.00	3.00	9.50	3.25	9.00
	3.25	1.75	5.50	5.75	4.625	8.60	1.75	7.50	3.00	8.00	5.25	8.50	3.50	7.00	2.50	8.50
	4.00	4.00	5.75	5.25	2.50	7.25	3.25	8.00	3.50	8.25	3.50	8.75	3.00	8.50	5.00	8.50
	4.00	6.00	4.00	4.00	4.00	9.25	1.125	7.00	4.00	10.00	3.00	8.50	3.00	10.25	3.00	8.50
	4.00	4.75	10.00	5.00	1.375	7.50	2.00	6.00	2.50	9.25	3.75	9.75	5.25	9.75	3.00	8.25
Actual measurement in grams and millimeters.	4.75	6.00	3.00	4.75	2.75	8.00	1.375	6.75	3.75	4.00	3.00	7.50	3.75	9.75	2.25	7.00
	6.75	5.00	3.25	5.25	1.625	8.00	2.375	10.00	3.25	7.75	4.50	8.00	2.00	2.00	2.00	6.50
	4.00	6.00	4.25	5.00	7.00	9.50	1.75	7.75	2.75	9.75	3.75	10.00	5.50	8.75	3.00	9.50
	3.75	3.00	3.75	4.25	2.25	6.75	2.625	8.25	3.00	9.25	3.25	8.25	3.50	11.00	3.50	9.75
	7.00	6.00	5.00	5.25	2.625	9.00	2.375	9.00	3.50	7.75	4.00	5.25	4.25	8.25	3.00	9.00
	4.75	5.50	5.00	4.75	3.375	8.50	1.625	7.25	3.75	9.25	4.00	10.25	3.00	8.75	3.25	7.75
	5.00	5.25	3.25	5.00	2.625	9.25	2.00	8.50	3.75	10.25	2.75	4.75	3.00	6.50	4.50	8.00
	5.25	5.00	3.00	5.25	4.375	8.25	1.25	4.25	4.25	8.00	3.00	9.00	3.25	9.25	4.25	9.00
	9.00	5.00	3.00	4.00	3.375	9.00	3.25	10.25	4.00	9.00	3.25	9.00	3.25	9.50	3.75	8.50
	3.50	4.25	3.00	5.75	2.25	7.75	1.50	8.75	5.00	10.00	3.00	9.00	3.50	9.00	3.00	10.00
	4.00	6.25	2.75	2.00	2.00	8.25	1.625	8.50	4.75	9.00	5.50	7.75	4.00	10.00	4.00	10.00
	7.00	5.00	3.00	4.25	2.00	8.25	2.375	9.00	4.25	8.25	3.25	7.75	2.00	10.75	3.00	9.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	10.00	154.55	7.00	35.00	5.25	81.03	10.25	51.25	6.75	104.18	10.25	51.25	6.00	92.61	11.00	55.00
Lowest	2.75	42.44	1.25	6.25	0.75	11.58	1.75	8.75	2.25	34.73	4.00	20.00	2.00	30.87	2.00	10.00
Average	4.47	68.99	4.75	23.75	2.49	38.43	7.43	37.15	3.70	57.11	8.39	41.95	3.18	49.112	8.49	42.45
Tests above average	20		29		22		32		22		28		33		35	
Tests below average	30		21		28		18		28		22		28		17	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

CALIFORNIA.

EWES, 2 YEARS OLD.

Catalogue number of samples..	631.				632.				633.				641.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	5.625	8.75	2.625	10.50	4.00	8.75	3.25	8.00	6.50	8.50	7.625	9.00	3.125	6.50	4.25	7.375
	2.625	5.50	4.625	9.00	3.50	7.25	5.00	6.00	2.50	8.00	4.00	8.75	2.25	2.75	4.00	2.25
	4.375	7.50	2.375	8.75	4.00	8.75	5.25	8.75	8.50	8.25	5.00	9.00	9.00	8.50	4.50	7.60
	4.375	2.25	2.00	4.50	3.50	7.00	4.00	7.00	4.25	7.50	5.00	9.25	3.50	8.00	4.50	8.125
	3.00	5.00	3.625	6.50	5.50	8.00	3.00	1.75	5.375	8.25	3.50	9.875	2.875	7.00	4.50	7.125
	1.25	6.50	6.75	8.25	5.25	9.00	4.75	6.00	4.00	7.75	5.25	9.00	3.625	6.00	4.00	7.50
	6.25	8.875	7.625	8.125	4.00	7.00	3.50	5.50	3.50	8.25	5.00	7.75	2.50	6.75	4.00	8.125
	3.375	5.75	3.625	9.25	3.25	7.00	3.00	9.00	8.00	8.00	5.375	5.00	4.50	9.00	7.00	9.00
	4.00	7.875	4.625	7.75	4.50	6.00	3.75	6.75	7.50	7.75	4.00	8.00	2.50	5.75	7.50	6.625
	5.375	7.75	6.375	10.00	7.00	7.00	3.00	3.75	3.50	8.75	6.00	7.75	2.75	7.50	3.875	7.25
	2.75	7.50	2.75	9.50	3.25	7.50	4.00	7.50	4.00	6.25	4.25	9.00	2.00	5.00	3.00	5.75
	3.625	8.50	2.50	6.00	4.50	8.00	4.00	3.00	8.00	8.00	3.625	10.25	5.00	4.75	5.50	8.50
	5.375	6.50	5.50	9.50	5.50	8.25	6.00	7.75	10.75	9.00	3.50	9.50	7.50	7.00	5.50	8.00
	5.375	6.50	2.625	7.125	5.00	9.00	6.75	6.50	4.00	9.75	4.625	8.25	5.375	7.875	4.25	6.00
	4.00	10.50	3.375	9.875	5.75	6.00	5.50	8.00	4.375	6.875	8.375	9.00	3.25	6.00	4.00	8.375
	2.50	3.25	5.50	7.50	6.00	7.00	5.00	8.50	4.25	8.00	5.50	9.75	6.375	6.125	5.50	7.00
	3.625	8.00	3.00	6.75	5.00	7.00	5.25	7.75	6.375	8.50	3.75	10.00	4.375	8.25	3.375	7.75
	2.625	6.50	3.375	7.50	3.75	10.00	3.00	7.00	6.125	8.00	5.75	9.25	7.25	7.25	3.50	8.625
	4.375	6.50	3.375	7.125	5.50	7.75	5.25	6.25	3.25	6.50	4.00	8.00	6.25	6.875	4.25	8.125
	5.375	8.25	2.00	5.50	6.25	8.50	3.50	8.25	6.50	6.75	4.00	10.75	5.375	6.00	4.00	9.125
	3.00	8.25	3.00	3.00	5.00	4.00	5.25	7.75	4.625	6.00	7.75	7.25	7.25	8.00	5.50	7.00
	3.75	8.25	5.375	7.50	3.00	7.50	5.25	7.25	4.50	7.75	6.75	8.50	3.625	8.00	4.50	8.00
	2.625	8.00	4.00	6.50	6.00	6.25	6.00	5.75	5.50	8.50	2.75	6.25	6.00	8.25	4.375	7.50
	3.625	7.25	2.375	3.75	5.00	6.25	3.00	3.75	5.625	9.50	10.375	9.00	6.25	7.00	4.25	7.00
	2.00	6.75	3.375	6.25	3.50	1.25	5.75	7.25	4.375	4.875	4.00	6.00	4.00	8.75	3.75	8.00
Totals	100.875	176.25	96.375	186.00	117.50	180.00	112.00	164.75	135.875	195.25	129.75	214.125	116.50	172.875	113.375	190.125

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	7.625	117.688	10.50	52.50	7.00	108.04	10.00	50.00	10.75	165.92	10.77	53.75	9.00	138.911	9.125	45.625
Lowest	2.00	30.869	2.25	11.25	3.00	46.30	1.25	6.25	2.50	38.59	4.875	24.375	2.00	30.869	2.75	13.75
Average	3.94	60.812	7.24	36.20	4.95	76.40	6.84	34.20	5.312	81.99	8.187	40.935	4.598	70.969	7.26	36.30
Tests above average	21		28		25		33		21		27		17		25	
Tests below average	29		22		25		17		29		23		33		25	

CALIFORNIA.

EWES, 2 YEARS OLD.

Catalogue number of samples..	642.				643.				644.				642.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	5.00	4.50	6.50	7.75	6.50	8.25	10.375	8.00	7.50	8.25	4.00	9.25	5.00	7.50	2.625	7.50
	3.00	6.00	7.75	8.25	4.375	9.25	5.50	9.25	3.25	8.50	5.75	8.25	4.25	2.75	3.625	7.875
	9.00	8.00	3.00	4.00	6.625	8.50	4.625	6.00	6.00	7.75	4.00	8.00	12.50	3.875	4.25	10.50
	3.00	3.50	3.25	8.75	6.625	8.75	5.625	8.75	3.00	7.75	6.00	8.00	3.50	6.00	2.375	5.50
	3.25	6.25	6.25	7.00	10.375	9.00	4.125	10.00	4.00	9.00	4.00	9.00	3.625	6.50	2.25	8.50
	2.75	2.50	5.00	6.00	7.25	7.50	3.625	6.50	3.75	7.00	4.00	10.50	4.50	7.25	2.25	6.75
	3.50	7.25	3.50	7.00	5.625	6.50	5.25	5.00	2.75	8.00	3.50	8.25	3.375	5.75	3.00	3.875
	2.00	3.50	7.00	4.75	5.50	3.25	6.375	6.50	2.75	7.75	4.00	8.50	5.00	8.125	5.00	6.875
	10.75	8.75	6.00	9.00	10.375	8.00	4.375	7.50	3.75	8.75	6.00	9.25	4.625	9.00	2.75	6.50
	7.00	7.00	3.25	6.50	7.625	4.00	3.375	4.50	3.00	8.75	4.00	5.75	5.625	3.75	3.00	6.75
	5.75	8.25	5.75	8.00	4.375	7.00	11.50	9.25	3.00	5.75	2.00	3.00	2.25	6.50	4.25	9.00
	14.00	7.75	1.75	5.00	8.625	8.25	3.50	8.125	3.50	8.00	9.00	8.00	3.125	5.00	2.50	5.75
	3.50	4.00	2.50	8.50	14.625	9.00	7.625	7.50	4.25	8.00	3.00	8.00	6.00	7.375	3.50	4.875
	2.50	4.00	4.00	7.50	8.00	8.75	3.625	8.00	3.25	8.75	6.50	8.50	5.00	7.00	7.75	8.00
	7.25	6.75	3.50	8.00	6.75	9.75	4.375	8.50	3.25	9.25	4.00	7.75	3.625	4.25	4.25	6.00
	3.50	6.75	2.75	6.00	5.75	6.50	4.375	6.25	3.50	7.75	3.50	9.25	3.25	6.50	3.50	5.00
	5.00	2.00	2.00	6.00	7.625	8.00	3.625	6.50	3.00	8.00	2.75	6.00	4.375	7.785	4.375	6.50
	9.25	7.00	3.00	8.00	5.375	7.50	7.375	7.00	3.50	10.00	4.00	9.75	3.00	3.75	4.50	8.00
	2.75	6.00	13.00	8.25	7.375	8.125	6.50	9.50	4.50	9.25	4.00	7.00	3.00	8.50	4.50	6.50
	6.00	7.00	2.00	8.00	5.625	7.00	6.00	7.25	2.25	7.00	3.50	7.00	2.375	7.00	4.00	7.25
	4.00	6.00	2.50	4.75	8.375	9.125	7.375	6.75	2.75	6.50	3.00	6.00	2.75	7.875	4.125	6.50
	2.25	6.00	5.25	8.00	5.625	9.75	8.75	4.50	3.75	9.00	3.75	5.00	2.50	4.875	3.25	2.625
	4.00	7.25	2.50	7.75	9.75	8.00	4.375	8.25	3.00	8.50	6.50	8.75	4.375	9.00	2.75	5.00
	3.75	4.75	2.25	8100	6.50	4.25	4.375	8.00	4.00	9.00	5.75	9.25	3.375	8.875	3.375	7.25
	4.50	8.75	3.50	7.00	6.00	9.25	8.00	8.00	4.50	7.50	5.00	6.50	4.00	7.00	4.375	6.75
Totals	127.25	149.50	106.75	177.75	181.25	193.25	145.125	185.375	91.75	203.75	111.50	194.50	94.625	161.875	92.125	165.625

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	14.00	216.084	9.00	45.00	14.625	225.73	10.00	50.00	9.00	138.91	10.50	52.50	7.75	119.62	10.50	52.50
Lowest	1.75	27.01	2.50	12.50	3.375	52.08	3.25	16.25	2.25	34.728	3.00	15.00	2.125	32.798	2.625	13.125
Average	4.68	72.23	6.545	32.725	6.52	100.63	7.57	37.85	4.06	62.66	7.96	39.80	3.74	57.73	6.55	32.75
Tests above average	18		20		21		28		18		32		12		26	
Tests below average	32		21		29		22		37		18		28		24	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

CALIFORNIA.

EWES, 2 YEARS OLD.

Catalogue number of samples..	650.				651.				652.				653.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	4.75	8.75	3.00	8.50	2.25	5.875	4.125	5.25	2.875	5.25	2.00	3.25	5.50	8.50	3.75	5.25
	5.25	9.00	4.75	9.75	7.50	8.75	5.875	6.00	3.875	5.00	3.875	5.00	4.00	8.00	3.75	3.25
	4.25	6.50	5.00	8.75	2.50	6.125	3.50	3.875	3.00	7.25	2.25	4.00	3.50	5.00	6.00	10.25
	9.00	8.50	4.50	9.50	4.00	7.00	4.75	4.50	2.25	3.50	3.50	6.00	3.75	7.00	6.00	9.75
	4.25	8.25	10.50	10.00	3.50	7.50	3.00	4.25	1.625	2.00	3.75	2.75	4.00	3.75	3.00	2.50
	5.00	7.00	3.25	9.50	3.00	7.50	2.875	5.875	2.375	7.25	4.75	7.25	3.25	7.00	6.75	8.75
	6.25	7.50	3.50	8.25	2.625	7.25	6.50	8.25	3.00	6.00	2.50	2.75	5.50	9.50	7.00	10.25
	4.75	8.00	3.50	8.75	4.125	7.125	3.375	5.50	3.00	6.25	2.75	4.75	3.25	8.00	4.00	6.00
	8.75	8.75	4.50	9.75	4.00	7.00	2.875	4.00	2.00	2.75	4.25	5.25	4.75	6.50	4.50	9.25
	4.50	7.75	3.50	7.50	5.75	7.25	3.00	5.25	2.50	1.75	3.75	5.25	5.00	8.00	6.00	9.00
	6.00	9.75	5.25	8.00	5.25	8.00	4.75	8.00	2.375	5.50	4.75	5.00	7.25	9.00	5.25	10.00
	4.00	6.00	6.00	9.25	5.375	9.00	5.50	6.375	4.375	7.25	4.25	7.75	5.25	8.75	3.00	4.25
	4.00	6.75	5.25	8.00	4.75	5.625	6.50	7.00	2.00	4.00	2.75	2.75	7.25	9.75	4.00	7.00
	5.75	8.75	5.50	9.00	4.00	2.25	5.375	6.00	1.625	4.00	2.25	3.00	4.00	8.75	6.00	9.50
	4.50	9.75	4.75	7.75	3.75	5.00	2.50	6.50	2.625	5.00	3.25	1.50	4.00	8.00	4.00	4.00
	4.00	8.00	4.75	7.75	4.375	5.00	8.00	7.00	3.50	6.75	3.00	2.25	4.75	8.50	6.00	8.00
	2.75	5.50	4.25	8.75	5.25	5.50	5.00	7.50	3.00	7.50	8.25	7.00	5.00	9.75	4.50	7.75
	6.00	8.25	6.25	9.50	2.625	5.00	3.00	8.375	2.50	5.875	7.50	0.75	5.00	7.75	5.00	7.50
	9.00	4.50	2.75	7.75	3.75	2.875	5.75	7.00	3.25	8.00	3.25	7.125	5.75	10.00	8.25	8.00
	4.25	9.00	3.00	8.00	3.125	4.75	7.00	7.00	4.75	7.75	3.00	2.25	3.75	6.00	6.50	7.00
	5.00	8.50	3.75	8.50	6.625	7.50	4.00	5.125	8.00	7.00	2.25	1.125	3.50	8.00	3.00	3.00
	4.75	8.75	3.00	6.50	5.375	7.00	6.50	8.25	3.00	4.00	5.00	4.125	6.50	9.00	3.75	4.25
	6.00	8.75	4.50	8.00	8.00	7.00	4.00	7.50	5.25	7.50	4.75	5.375	4.50	7.50	4.00	6.50
	5.75	8.00	6.50	10.00	4.50	7.00	5.25	8.50	3.00	6.00	2.125	3.25	5.25	10.50	3.25	7.75
	14.00	10.00	8.75	9.50	4.00	8.00	2.875	3.00	2.50	5.00	4.25	3.25	8.00	9.00	5.25	7.50
Totals	142.50	200.25	120.25	214.75	110.00	159.875	113.375	148.625	77.25	139.125	94.00	105.75	120.25	203.25	122.50	178.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	14.00	216.08	10.00	50.00	8.00	123.48	9.00	45.00	8.25	127.34	8.00	40.00	8.25	127.34	10.50	52.50
Lowest	2.75	42.45	4.50	22.50	2.25	34.73	2.25	11.25	0.75	11.58	0.75	3.75	3.00	46.30	2.50	12.50
Average	5.26	81.186	8.25	41.40	4.47	68.89	6.17	30.85	3.43	52.94	5.49	27.45	4.86	75.011	7.63	38.15
Tests above average	15		27		24		27		19		28		24		29	
Tests below average	35		23		26		23		31		22		26		21	

CALIFORNIA.

EWES, 2 YEARS OLD.

Catalogue number of samples..	654.				655.				656.				658.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	6.50	7.00	4.25	8.25	3.25	5.50	3.50	4.75	6.75	5.25	2.625	9.00	10.00	8.00	8.00	8.50
	2.75	1.50	8.50	9.75	2.75	5.25	2.75	6.00	4.25	7.75	2.25	2.25	3.75	3.25	4.00	6.25
	4.00	7.25	3.25	5.50	5.25	8.75	3.00	2.00	4.50	2.25	4.625	9.25	3.50	4.00	4.00	3.75
	4.75	9.50	3.75	8.25	4.50	4.75	2.25	1.00	3.75	7.75	5.00	9.00	5.50	7.50	5.00	9.75
	4.75	8.00	5.00	7.00	5.00	8.00	2.75	3.50	4.25	6.75	5.00	9.25	4.00	6.50	4.00	8.00
	4.00	4.50	3.50	4.75	6.25	7.75	5.50	8.75	3.50	3.75	3.625	9.25	6.00	7.00	8.00	8.00
	4.00	7.25	8.00	7.75	4.25	2.25	3.00	5.25	5.75	6.50	3.375	8.25	5.25	9.00	5.75	7.75
	4.25	8.00	4.00	4.75	3.00	2.00	5.50	7.50	4.50	8.00	13.75	5.50	3.75	6.50	4.50	7.25
	3.00	4.25	2.75	1.75	4.00	9.25	3.75	5.50	2.50	2.00	5.375	6.75	5.75	8.00	5.25	8.75
	3.00	3.00	4.75	8.75	3.00	1.50	3.00	3.00	13.75	1.00	4.00	6.00	7.00	13.00	10.25	8.75
	4.75	6.00	6.50	1.75	3.50	6.00	3.50	7.00	3.75	6.25	2.625	6.25	5.25	7.00	3.50	3.50
	7.00	8.50	5.75	8.00	7.00	8.75	3.00	8.00	2.625	3.75	2.375	7.75	6.25	5.25	5.50	9.25
	6.75	9.75	3.00	8.75	2.25	1.75	6.00	9.25	5.00	6.50	5.00	4.25	7.25	9.25	6.25	7.50
	5.25	1.75	3.25	7.25	2.75	5.50	5.25	7.25	4.00	9.00	5.625	8.75	5.50	7.00	5.00	7.25
	3.50	7.50	3.50	8.00	3.50	7.25	2.75	4.00	3.00	5.50	3.625	8.75	4.00	6.00	3.25	4.00
	4.25	9.50	7.75	9.00	2.50	8.00	3.00	1.25	5.625	4.25	7.375	6.75	6.25	9.00	4.00	6.50
	3.75	5.00	3.00	1.50	3.25	2.00	3.50	2.00	2.25	1.50	3.375	5.75	4.00	7.00	3.00	2.00
	4.25	4.75	4.00	6.75	6.50	9.75	6.00	8.00	4.00	3.25	4.375	9.50	4.00	8.75	3.25	5.50
	2.75	2.00	4.00	9.50	2.50	2.00	3.25	5.00	5.00	9.00	1.00	1.00	3.00	6.25	4.00	7.50
	3.75	3.25	3.25	3.00	3.00	4.75	7.50	8.75	4.375	6.00	3.375	4.25	4.25	6.75	5.00	9.00
	7.00	9.50	2.50	2.50	4.00	5.00	3.50	8.25	3.375	7.25	3.375	10.00	6.50	8.25	3.75	1.75
	4.00	8.50	5.50	8.75	3.50	7.00	3.00	4.00	4.25	7.00	2.625	6.50	5.00	8.25	4.25	8.25
	5.75	7.00	4.25	2.00	4.00	5.25	4.00	8.00	3.00	4.75	4.75	8.25	4.00	7.25	5.50	7.50
	5.25	9.00	3.25	8.25	4.00	5.75	3.25	2.00	3.625	7.50	6.25	9.25	5.50	9.00	5.25	9.00
	3.50	2.50	3.50	4.25	5.25	8.50	3.00	5.75	4.375	9.75	5.00	6.25	6.75	9.75	4.25	6.50
Totals	110.00	152.75	108.75	161.75	98.75	147.25	95.00	130.75	99.375	145.25	103.00	178.25	133.00	182.50	123.00	172.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	8.50	131.94	9.75	48.75	7.50	115.76	9.75	48.75	7.375	113.829	10.00	50.00	10.25	158.20	10.00	50.00
Lowest	2.50	38.59	1.50	7.50	2.25	34.73	1.00	5.00	1.00	15.435	1.00	5.00	3.00	46.30	1.75	8.75
Average	4.39	67.603	6.29	31.45	3.88	59.87	5.56	27.80	3.99	61.58	6.47	32.35	5.12	79.03	7.95	39.75
Tests above average	16		30		19		26		20		20		24		20	
Tests below average	34		26		31		24		24		21		26		30	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

CALIFORNIA.

EWES, 2 YEARS OLD.

Catalogue number of samples..	659.				660.				661.				662.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	3.00	5.75	6.00	6.00	2.75	6.75	3.50	8.25	4.00	6.00	5.25	9.25	4.375	7.75	6.375	7.75
	5.00	5.00	2.00	2.00	6.00	9.50	3.00	8.00	4.75	7.00	8.75	7.25	4.25	10.25	2.75	9.00
	2.375	4.125	3.625	3.50	2.00	6.50	4.625	8.50	6.50	8.00	4.00	9.00	4.375	8.50	3.375	8.25
	3.50	5.00	2.50	2.00	4.00	5.875	2.50	4.875	4.00	8.50	5.00	8.50	5.375	8.00	1.625	4.50
	2.375	2.00	2.50	3.875	3.00	9.25	2.50	6.25	4.00	8.00	4.75	8.00	2.00	3.00	3.00	7.75
	3.375	7.125	3.00	4.25	5.00	8.875	1.75	7.50	6.75	8.00	5.00	9.00	4.50	8.75	1.625	7.00
	2.625	4.125	4.25	7.00	3.50	9.00	4.375	6.25	6.50	7.00	4.50	8.00	4.625	8.50	3.50	9.25
	2.50	5.00	3.25	2.00	4.625	8.25	2.75	6.00	6.50	8.25	5.50	8.25	4.50	9.75	4.375	10.00
	2.375	4.00	2.00	2.125	3.00	8.75	3.75	8.00	5.75	8.00	4.50	8.50	5.75	8.00	2.75	9.25
	2.125	4.875	2.625	2.50	2.00	7.25	3.00	7.00	6.00	7.75	5.00	9.00	1.50	1.00	2.00	7.75
	6.00	7.125	5.00	3.00	1.50	5.00	4.50	9.00	5.75	8.00	5.75	9.00	9.625	8.00	2.00	7.25
	5.75	6.25	2.875	3.125	3.00	7.75	3.25	7.25	3.00	5.00	5.00	10.00	2.375	3.00	3.625	10.50
	3.25	3.00	2.125	4.875	3.625	8.50	1.75	7.25	4.00	8.50	5.00	8.00	1.625	2.00	1.625	4.25
	4.625	4.625	2.125	6.00	5.25	6.75	3.50	8.25	4.00	9.00	4.00	10.00	3.25	8.875	2.50	7.25
	3.50	2.00	3.25	6.125	3.50	9.25	3.25	9.00	4.75	8.75	4.00	8.00	2.25	3.00	3.375	10.25
	2.75	2.75	1.875	3.75	3.00	8.75	3.50	10.00	6.25	8.00	2.75	8.50	2.625	3.75	3.00	8.75
	2.125	4.00	3.00	4.875	4.50	9.50	3.00	8.75	5.75	9.50	3.00	9.00	3.50	8.25	1.625	1.75
	3.50	2.00	2.50	2.75	4.375	9.75	3.00	9.75	6.25	9.00	3.50	9.00	4.00	8.00	3.50	7.75
	2.50	3.375	1.875	3.25	2.375	9.25	3.25	10.125	3.75	8.25	4.00	8.75	8.00	8.125	3.625	10.00
	3.25	4.00	2.00	4.75	4.75	8.50	2.00	8.00	3.00	5.00	3.00	8.00	5.25	5.25	5.00	10.00
	5.375	4.875	2.125	4.25	3.625	9.00	3.625	9.00	5.50	7.25	5.00	7.25	1.25	4.00	3.00	7.75
	1.75	2.00	2.375	6.00	3.25	8.875	3.625	7.625	6.00	8.00	4.00	8.00	3.375	9.25	2.625	4.50
	1.75	3.125	1.875	3.125	2.50	7.75	3.50	10.00	3.25	5.25	3.00	6.75	3.625	9.25	6.625	8.25
	5.25	4.875	3.25	5.00	3.00	8.00	3.00	8.00	3.25	4.50	3.00	8.00	1.625	7.25	3.75	9.00
	5.00	4.00	3.625	8.00	5.00	6.875	2.25	6.75	4.00	6.75	4.75	9.00	2.375	3.00	2.75	10.50
Totals	85.625	105.00	71.625	104.125	91.125	200.00	78.75	202.375	123.25	187.25	112.00	192.00	96.50	164.50	80.00	198.25

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Strain.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	6.00	92.61	7.125	35.625	6.00	92.608	10.00	50.00	8.75	135.05	10.00	50.00	9.625	148.56	10.50	52.50
Lowest	1.75	27.011	2.00	10.00	1.50	23.152	5.00	25.00	3.00	46.30	3.50	17.50	1.25	19.29	1.00	5.00
Average	3.145	48.54	4.183	20.915	3.396	52.416	8.046	40.23	4.70	72.54	7.58	37.90	3.53	54.48	7.255	36.275
Tests above average	21		23		24		25		26		38		20		33	
Tests below average	29		27		26		25		24		12		30		17	

CALIFORNIA.

EWES, 2 YEARS OLD.

Catalogue number of samples..	663.				664.				665.				666.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	5.75	7.75	4.00	9.50	6.375	8.25	3.75	9.00	3.25	6.875	2.50	4.875	4.50	7.00	3.25	6.25
	3.75	7.00	3.50	8.00	5.00	9.125	4.50	9.00	4.00	8.00	4.375	7.875	3.375	8.50	6.375	9.00
	7.50	10.00	4.00	7.50	3.50	10.25	3.75	4.875	3.50	7.125	4.00	8.125	2.00	8.50	2.375	7.75
	3.25	3.50	3.75	9.75	7.25	7.00	2.50	8.875	3.625	7.00	3.25	7.00	10.375	9.75	5.50	7.75
	4.00	5.50	4.75	8.00	4.50	7.00	4.00	7.50	2.25	5.00	2.875	6.00	3.625	8.50	2.375	6.25
	6.00	8.50	5.00	7.25	3.375	7.50	4.25	7.00	2.50	3.00	5.00	8.00	1.375	2.00	1.75	7.50
	3.25	5.50	3.75	8.00	8.375	8.875	6.50	8.00	3.25	6.00	3.00	6.00	3.625	8.125	1.375	3.75
	5.00	7.75	5.75	8.00	3.50	5.25	5.35	5.75	2.625	4.875	3.125	7.00	7.625	8.00	6.50	9.00
	3.25	6.00	3.25	8.50	3.00	6.75	4.375	8.75	3.00	4.875	4.25	7.75	5.375	7.75	2.50	8.75
	5.25	9.50	4.00	9.00	4.25	7.50	3.375	6.00	2.875	7.00	2.00	2.875	2.375	4.25	5.625	9.00
	2.75	7.00	5.25	6.50	6.75	6.25	6.00	9.00	3.125	6.75	4.00	7.50	2.50	4.00	4.375	6.25
	3.25	6.00	3.75	8.50	3.50	7.75	4.50	8.25	2.25	3.75	4.625	6.25	8.625	9.25	3.00	7.75
	3.50	7.75	5.25	9.75	4.50	7.75	3.00	6.75	3.625	5.00	5.00	8.00	2.625	7.125	6.375	8.00
	6.00	9.25	4.00	8.50	7.00	9.50	3.625	6.375	3.00	6.125	3.25	8.00	5.50	7.75	3.00	6.75
	6.75	8.00	3.00	9.75	3.00	4.875	4.375	7.00	5.00	8.875	3.125	6.125	5.625	9.00	2.625	10.00
	4.00	6.00	5.00	9.00	4.00	5.00	3.50	9.00	2.25	4.00	2.875	5.00	3.50	7.00	2.25	6.125
	4.00	8.00	5.00	8.25	4.50	9.00	7.00	9.75	2.50	2.25	2.50	5.75	2.75	6.25	2.00	7.00
	4.00	8.00	4.50	9.25	3.25	6.25	10.75	9.00	3.50	6.875	2.625	4.00	3.00	2.50	3.25	8.25
	4.00	7.00	4.00	9.75	3.00	7.875	7.25	5.75	2.25	2.875	2.875	3.125	3.50	10.25	3.375	7.75
	5.00	8.00	3.25	8.00	6.00	6.75	4.00	8.75	2.25	6.00	3.25	7.375	2.625	5.50	5.375	9.00
	4.00	4.75	4.00	8.00	5.625	7.75	5.75	4.875	3.625	5.75	3.00	8.00	2.375	9.00	3.375	4.00
	6.00	6.00	3.00	8.00	3.50	8.75	6.625	8.00	2.375	2.25	3.00	7.00	2.625	9.25	2.625	8.00
	4.00	6.50	5.25	6.50	6.00	8.50	4.00	8.75	4.00	7.00	3.125	8.00	2.625	9.75	2.625	5.75
	4.00	7.00	4.00	8.25	3.875	8.75	3.00	7.00	3.375	7.00	3.25	7.125	4.00	5.25	2.25	9.25
	3.25	8.00	4.50	11.00	3.50	8.875	5.50	9.00	2.75	6.125	4.50	8.50	2.375	6.25	2.00	7.25
Totals	111.50	178.25	105.50	212.50	116.625	191.125	121.25	192.50	76.75	140.375	85.375	165.25	98.50	180.50	86.125	186.125

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	[illegible]	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	7.50	115.76	11.00	55.00	10.75	165.92	10.25	15.25	5.00	77.173	8.875	44.375	10.375	160.134	10.25	51.25
Lowest	3.00	46.304	3.50	17.50	3.00	46.304	4.875	24.375	2.00	30.869	2.25	11.25	1.375	21.22	2.00	10.00
Average	4.34	66.986	7.815	39.075	4.758	73.437	7.673	38.365	3.243	50.05	6.113	30.565	3.69	56.85	7.333	36.665
Tests above average	19		30		18		28		23		29		15		[illegible]	
Tests below average	31		20		32		22		27		21		35		[illegible]	

TABLE II.—*Measurements of strain and stretch of wools*—Continued.

CALIFORNIA.

Catalogue number of samples	LWES, 2 YEARS OLD. 667.				668.				EWES, 3 YEARS OLD. 645.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
Actual measurement in grams and millimeters.	*grams.* 7.25 5.50 [illegible] 4.25 [illegible] 4.75 [illegible] 5.00 7.00 5.00 8.75 3.75 11.00 3.00 11.00 5.00 5.75 7.25 6.00 8.75 7.00 2.50 8.50	*mm.* 7.75 9.50 8.25 6.00 5.25 4.75 5.25 7.50 7.00 9.00 8.50 11.00 1.50 10.75 4.50 8.00 9.50 7.25 10.00 8.25 8.50 9.00 6.50 7.25 10.00 7.00 6.75 7.00 9.00	*grams.* 5.75 5.50 7.00 [illegible] 3.25 [illegible] 6.00 4.25 [illegible] 3.75 7.50 7.00 8.50 10.75 8.25 [illegible] 6.00 10.00 [illegible] 7.25 [illegible] 7.00 [illegible] 7.00	*mm.* 7.00 8.50 6.75 10.00 8.25 [illegible] 5.00 4.25 [illegible] 3.75 5.00 7.00 8.50 10.00 8.75 [illegible] 6.00 7.00 [illegible] 7.25 [illegible] 7.00 [illegible] 9.00	*grams.* 3.875 4.50 3.25 [illegible] 3.00 4.00 3.375 2.75 3.25 3.50 4.375 3.375 4.25 2.625 4.25 2.00 4.125 4.25 2.875 3.25 [illegible] 4.00	*mm.* 8.25 9.00 8.00 [illegible] 10.25 9.50 9.00 8.75 10.75 8.75 10.25 9.875 9.00 9.00 [illegible] 9.50 [illegible] 8.75 [illegible] 9.00 [illegible] 9.50 [illegible] 7.00 [illegible] 9.50 [illegible] 8.25 [illegible] 9.00 [illegible] 9.50 [illegible] 7.00 [illegible] 8.25	*grams.* 4.00 4.25 4.00 [illegible] 2.50 [illegible] 3.00 3.375 4.00 2.75 6.50 2.75 2.625 6.25 5.75 3.375 [illegible] 3.50 [illegible] 3.50 [illegible] 3.50 [illegible] 3.50 [illegible] 3.50 [illegible] 3.375	*mm.* 10.50 9.00 10.00 [illegible] 9.00 [illegible] 8.875 9.50 [illegible] 9.00 8.00 9.00 6.25 9.00 9.00 10.75 6.25 7.75 9.25 8.00 [illegible] 7.75 [illegible] 7.25 [illegible] 7.25 [illegible] 7.25 [illegible] 8.00	6.00 5.125 3.125 10.25 4.00 3.25 3.875 3.50 9.00 5.375 3.25 2.125 4.75 4.625 4.00 3.75 4.625 3.00 3.25 3.75 7.50 3.875	6.50 8.00 5.00 5.25 6.75 5.125 7.00 [illegible] 7.25 6.50 4.625 6.75 5.125 [illegible] 6.50 5.00 7.75 [illegible] 4.00 [illegible] 4.125 [illegible] 7.00 [illegible] 6.875 [illegible] 6.25 7.00	7.50 4.25 2.875 5.25 3.375 4.50 [illegible] 2.50 [illegible] 3.25 2.75 5.375 4.375 [illegible] 3.75 [illegible] 4.50 [illegible] 4.50 [illegible] 2.75 [illegible] 3.75 [illegible] 5.875 [illegible] 5.50 4.00	[illegible] 6.125 6.00 6.00 7.25 4.25 0.25 6.50 3.125 7.125 6.00 [illegible] 6.25 [illegible] 8.50 [illegible] 9.75 [illegible] 5.25 7.00 [illegible] 5.50 4.625
Totals	163.00	190.50	165.25	193.75	85.875	224.75	95.75	216.50	118.125	159.75	119.25	144.125

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	11.00	169.78	11.00	55.00	6.50	100.325	10.75	53.75	10.25	[illegible]	[illegible]	[illegible]
Lowest	3.00	46.304	1.50	7.50	2.00	30.869	[illegible]	30.00	2.125	32.80	1.50	7.50
Average	6.565	101.326	7.685	38.425	3.633	56.074	8.83	44.15	4.71	72.70	6.08	30.40
Tests above average	23		32		21		32		18		[illegible]	
Tests below average	27		18		29		18		32		22	

CALIFORNIA.

Catalogue number of samples	EWES, 3 YEARS OLD. 646.				647.				648.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
Actual measurement in grams and millimeters.	*grams.* 2.75 6.25 [illegible] 4.50 [illegible] 6.75 2.75 2.60 2.25 [illegible] 2.50 [illegible] 5.25 [illegible] 3.25 [illegible] 3.25 [illegible] 2.50 [illegible]	*mm.* 9.50 10.25 [illegible] 10.00 5.25 [illegible] 5.00 7.75 6.00 7.75 8.75 9.50 [illegible] 6.50 9.50 [illegible] 9.00 8.75 [illegible] 8.75 [illegible] 9.00 [illegible] 9.00 [illegible] 8.75	*grams.* 5.00 2.75 [illegible] 2.25 5.75 3.25 2.50 6.00 4.25 3.25 [illegible] 3.75 2.25 [illegible] 3.40 3.50 3.25 [illegible] 3.50 [illegible] 3.25 [illegible] 3.40	*mm.* 9.25 7.00 [illegible] 2.75 8.50 [illegible] 6.50 10.00 9.00 9.00 [illegible] 8.50 9.00 [illegible] 9.00 8.50 [illegible] 9.00 [illegible] 10.25 [illegible] 9.75 [illegible] 9.00 [illegible] 9.75 [illegible] 8.75	*grams.* 7.75 2.625 2.50 5.00 5.375 2.625 1.375 2.00 5.375 [illegible] 3.00 [illegible] 2.50 5.625 3.75 4.625 [illegible] 4.625 [illegible] 3.00 [illegible] 2.625 2.625 4.25 3.625 4.375 5.25 5.50 4.625 1.625	*mm.* 7.25 [illegible] 5.25 [illegible] 7.25 [illegible] 4.25 [illegible] 1.75 5.25 [illegible] 8.50 [illegible] 7.75 9.75 10.00 [illegible] 9.50 7.50 8.75 7.00 [illegible] 7.75 [illegible] 8.50 [illegible] 7.50 [illegible] 1.25	*grams.* 2.00 3.625 0.00 [illegible] 5.00 [illegible] 4.25 7.50 [illegible] 8.50 [illegible] 3.50 4.75 4.00 [illegible] [illegible] [illegible] 3.625 [illegible] 3.625 2.625 5.00 4.375 2.625 4.375 2.75 3.625 4.625	*mm.* [illegible] 7.75 [illegible] 2.50 [illegible] 9.75 [illegible] 7.00 [illegible] 8.50 [illegible] 6.00 2.00 [illegible] 7.75 [illegible] 9.75 [illegible] 9.00 [illegible] 8.00 [illegible] 6.50 [illegible] 4.75 [illegible] 8.50 [illegible] 9.75	*grams.* 8.25 5.75 3.25 4.25 7.00 3.25 [illegible] 6.50 2.75 9.00 8.50 7.00 3.50 8.50 7.00 10.25 [illegible] 6.75 7.25 4.75 5.00 [illegible] 7.00 10.25 [illegible] 6.25	*mm.* 8.75 [illegible] 8.50 9.00 7.75 [illegible] 9.00 [illegible] 11.00 7.00 9.00 8.50 [illegible] 8.50 7.00 3.00 9.75 8.75 9.00 [illegible] 9.75 [illegible] 9.00 [illegible] 9.75 [illegible] 8.00	[illegible] 5.75 3.25 4.25 [illegible] 3.25 [illegible] 4.50 [illegible] 4.50 [illegible] 5.50 [illegible] 8.75 [illegible] 3.00 [illegible] 4.75 [illegible] 4.50 [illegible] 4.00 [illegible] 5.00 [illegible] 4.50 [illegible] 4.00	[illegible] 9.50 [illegible] 0.50 [illegible] 7.75 [illegible] 9.00 [illegible] 2.25 [illegible] 8.50 [illegible] 9.00 [illegible] 7.75 [illegible] 6.75 [illegible] 9.00 [illegible] 8.50 [illegible] 7.00 [illegible] 9.00 [illegible] 8.50 [illegible] 7.25 [illegible] 9.00 [illegible] 7.50 [illegible] 8.75 [illegible] 7.00 [illegible] 9.25 [illegible] 8.50 [illegible] 6.00
Totals	85.50	209.75	88.00	[illegible]	101.75	170.00	117.00	177.00	134.75	209.50	132.50	193.00

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	6.75	104.18	10.25	51.25	8.50	131.19	10.00	50.00	11.00	169.78	11.00	55.00
Lowest	2.00	30.87	4.50	22.50	1.625	25.08	1.25	6.25	2.75	42.44	2.25	11.25
Average	3.47	53.56	8.37	41.85	4.38	67.60	6.94	34.70	5.33	82.27	8.05	40.25
Tests above average	17		34		22		38		21		29	
Tests below average	[illegible]		16		28		12		29		21	

TABLE III.—*Extreme and average measurements of fineness of wools.*

Catalogue number of sample.	Highest.		Lowest.		Average.	
	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.
VERMONT.						
RAMS.						
2 years old:						
423	3.25	1.2795	1.00	0.3937	2.157	0.8492
525	4.00	1.5748	1.50	0.5905	2.443	0.9618
534	3.125	1.2303	1.00	0.3937	1.788	0.7039
543	3.625	1.4271	1.25	0.4921	1.861	0.7326
Average	3.50	1.3779	1.19	0.4085	2.06	0.8110
3 years old:						
526	3.75	1.4763	1.375	0.5413	2.335	0.9192
530	3.50	1.3779	1.50	0.5905	2.056	0.8094
533	3.75	1.4763	1.00	0.3937	1.983	0.7807
535	3.50	1.3779	1.50	0.5905	2.245	0.8838
537	2.875	1.1318	1.375	0.5413	1.906	0.7503
540	3.50	1.3779	1.375	0.5413	2.039	0.8027
545	3.25	1.2795	1.00	0.3937	2.011	0.7917
554	2.875	1.1318	1.125	0.4429	2.079	0.8183
555	3.75	1.4763	1.125	0.4429	2.237	0.8807
563	3.875	1.5255	1.00	0.3937	2.23	0.8779
Average	3.463	1.3633	1.238	0.4870	2.122	0.8354
EWES.						
2 years old:						
424	3.00	1.811	1.125	0.4429	2.014	0.7929
542	2.625	1.0334	1.00	0.3937	1.622	0.6385
Average	2.812	1.1070	1.062	0.4181	1.818	0.7157
3 years old:						
522	3.875	1.5255	1.25	0.4921	1.97	0.7755
523	3.00	1.1811	1.375	0.5413	1.963	0.7728
524	3.50	1.3779	1.50	0.5905	2.07	0.8149
527	3.75	1.4763	1.25	0.4921	1.982	0.7803
528	3.875	1.5255	1.25	0.4921	1.982	0.7803
529	2.75	1.0826	1.375	0.5413	2.00	0.7874
531	3.00	1.1811	1.125	0.4429	1.93	0.7598
532	3.50	1.3779	1.25	0.4921	2.261	0.8901
536	3.00	1.1811	1.25	0.4921	2.081	0.8192
538	3.00	1.1811	1.50	0.5905	2.055	0.8090
539	3.00	1.1811	1.00	0.3937	1.863	0.7334
541	2.75	1.0826	0.875	0.3448	1.651	0.6499
544	3.00	1.1811	1.00	0.3937	1.79	0.7047
546	2.75	1.0826	1.00	0.3937	1.749	0.6885
547	2.75	1.0826	1.00	0.3937	1.794	0.7062
548	3.25	1.2795	1.125	0.4429	1.853	0.7295
549	3.50	1.3779	1.125	0.4429	2.010	0.7913
550	3.625	1.4271	1.125	0.4429	1.982	0.7803
551	3.00	1.1811	1.00	0.3937	2.033	0.8003
552	3.00	1.1811	1.25	0.4921	2.103	0.8279
553	2.75	1.0826	1.00	0.3937	1.769	0.6964
556	3.00	1.1811	1.375	0.5413	2.019	0.7948
557	2.75	1.0826	1.375	0.5413	1.941	0.7641
558	3.50	1.3779	1.25	0.4921	2.021	0.7956
559	3.00	1.1811	1.25	0.4921	1.956	0.7700
560	3.25	1.2795	1.25	0.4921	1.934	0.7614
561	3.25	1.2795	1.375	0.5413	2.151	0.8468
562	3.125	1.2303	1.00	0.3937	2.020	0.7952
Average	3.161	1.2444	1.232	0.4850	1.962	0.7724
NEW YORK.						
RAMS.						
2 years old:						
669	3.00	1.1811	1.25	0.4921	1.90	0.7480
670	2.75	1.0826	1.375	0.5413	1.86	0.7322
671	3.25	1.2791	1.25	0.4921	2.066	0.8133
672	4.50	1.7716	1.125	0.4429	1.96	0.7716
673	2.50	0.9842	1.25	0.4921	1.787	0.7035
674	2.50	0.9842	1.125	0.4429	1.79	0.7047
675	3.00	1.1811	1.25	0.4921	1.896	0.7464
676	2.50	0.9842	1.125	0.4429	1.92	0.7559
677	3.00	1.1811	1.25	0.4921	2.05	0.8070
678	3.125	1.2303	1.00	0.3937	1.967	0.7744
691	4.125	1.6240	1.375	0.5413	2.346	0.9236
692	2.50	0.9842	1.375	0.5413	1.916	0.7543
693	2.875	1.1318	1.25	0.4921	1.956	0.7700
Average	3.048	1.1999	1.231	0.4846	1.955	0.7696
EWES.						
2 years old:						
679	2.75	1.0826	1.125	0.4429	1.876	0.7385
680	3.50	1.3779	1.25	0.4921	2.15	0.8464
681	3.00	1.1811	1.25	0.4921	2.036	0.8015
682	2.875	1.1378	1.00	0.3937	1.754	0.6905
683	3.50	1.3779	1.00	0.3937	1.983	0.7807
684	3.50	1.3779	1.00	0.3937	2.147	0.8452
685	3.00	1.1811	1.25	0.4921	1.927	0.7586
686	3.50	1.3779	1.25	0.4921	1.96	0.7716
NEW YORK—Continued.						
EWES—continued.						
2 years old:						
687	3.25	1.2795	1.125	0.4429	1.989	0.7830
688	3.00	1.1811	1.125	0.4429	2.117	0.8384
689	4.00	1.5748	1.50	0.5905	2.364	0.9307
690	3.50	1.3779	1.50	0.5905	2.163	0.8515
694	3.50	1.3779	1.375	0.5413	2.089	0.8224
695	3.50	1.3779	1.125	0.4429	2.337	0.9200
696	4.125	1.6240	1.375	0.5413	2.358	0.9283
697	3.50	1.3779	1.375	0.5413	2.31	0.9094
Average	3.375	1.3287	1.227	0.4830	2.098	0.8259
PENNSYLVANIA.						
RAMS.						
Lambs:						
570	2.625	1.0334	1.00	0.3937	1.694	0.6669
574	2.75	1.0826	1.00	0.3937	1.83	0.7204
577	3.50	1.3779	1.50	0.5905	2.12	0.8346
578	3.375	1.3287	1.125	0.4429	2.10	0.8267
580	3.50	1.3779	1.00	0.3937	2.08	0.8188
779	3.00	1.1811	1.50	0.5905	2.05	0.8070
Average	3.125	1.2303	1.188	0.4677	1.979	0.7791
2 years old:						
582	2.25	0.8858	0.875	0.3448	1.39	0.5472
583	2.00	0.7874	1.00	0.3937	1.48	0.5826
584	2.00	0.7874	1.00	0.3937	1.39	0.5472
585	2.125	0.8366	1.00	0.3937	1.51	0.5944
586	2.50	0.9842	0.75	0.2953	1.66	0.6535
587	2.00	0.7874	1.00	0.3937	1.44	0.5669
Average	2.146	0.8448	0.937	0.3689	1.48	0.5826
WETHERS.						
2 years old:						
780	2.625	1.0334	1.375	0.5413	1.93	0.7598
781	3.125	1.2303	1.125	0.4429	2.094	0.8244
Average	2.875	1.1318	1.25	0.4921	2.012	0.7921
EWES.						
Lambs:						
575	3.75	1.4763	1.00	0.3937	1.85	0.7283
576	3.00	1.1811	1.125	0.4429	1.81	0.7125
Average	3.375	1.3287	1.063	0.4185	1.83	0.7204
2 years old:						
772	2.625	1.0334	1.50	0.5905	1.96	0.7716
773	3.00	1.1811	1.25	0.4921	1.97	0.7755
774	3.00	1.1811	1.00	0.3937	1.89	0.7440
775	3.50	1.3779	1.50	0.5905	2.13	0.8385
776	2.75	1.0826	1.125	0.4429	1.77	0.6968
777	2.50	0.9842	1.25	0.4921	1.85	0.7283
778	3.00	1.1811	1.00	0.3937	1.79	0.7047
Average	2.911	1.1460	1.232	0.4850	1.91	0.7519
3 years old:						
581	2.50	0.9842	1.00	0.3937	1.74	0.6850
588	2.00	0.7874	1.125	0.4429	1.65	0.6495
589	3.00	1.1811	1.125	0.4429	1.58	0.6220
590	2.00	0.7874	1.00	0.3937	1.49	0.5866
591	2.375	0.9350	1.25	0.4921	1.77	0.6968
592	2.00	0.7874	1.00	0.3937	1.53	0.6023
593	2.00	0.7874	1.00	0.3937	1.388	0.5464
594	2.00	0.7874	0.75	0.2953	1.48	0.5826
595	2.50	0.9842	1.00	0.3937	1.65	0.6496
596	2.00	0.7874	1.00	0.3937	1.46	0.5747
597	2.00	0.7874	1.00	0.3937	1.41	0.5551
Average	2.216	0.8724	1.023	0.4027	1.359	0.6137
WISCONSIN.						
EWES.						
1 year old:						
741	3.00	1.1811	1.00	0.3937	2.017	0.7940
742	3.00	1.1811	1.25	0.4921	1.941	0.7641
743	3.00	1.1811	1.25	0.4921	2.002	0.7881
Average	3.00	1.1811	1.167	0.4988	1.986	0.7818
2 years old:						
698	2.50	0.9842	1.125	0.4429	1.804	0.7118
699	3.75	1.4763	1.25	0.4921	1.965	0.7736
704	3.00	1.1811	1.00	0.3937	1.871	0.7366
708	3.00	1.1811	1.00	0.3937	1.845	0.7263

TABLE III.—*Extreme and average measurements of fineness of wools*—Continued.

Catalogue number of samples.	Highest.		Lowest.		Average.	
	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.
WISCONSIN—Continued.						
EWES—continued.						
2 years old:						
709	2.875	1.1316	1.00	0.3937	1.823	0.7177
743	3.00	1.1811	0.875	0.3444	2.096	0.8133
744	2.375	0.9350	1.00	0.3937	1.505	0.6279
745	2.75	1.0826	1.00	0.3937	1.779	0.7003
746	3.50	1.3779	1.25	0.4921	1.868	0.7354
762	2.50	0.9842	1.25	0.4921	1.79	0.7047
763	2.50	0.9842	1.25	0.4921	2.02	0.7952
764	3.125	1.2303	1.25	0.4921	2.103	0.8279
765	3.00	1.1811	1.00	0.3937	1.902	0.7488
766	3.00	1.1811	1.00	0.3937	1.96	0.7716
767	2.75	1.0826	1.50	0.5905	1.876	0.7385
768	2.75	1.0826	1.25	0.4921	1.88	0.7401
769	3.50	1.3779	1.375	0.5413	2.03	0.7992
782	2.50	0.9842	1.25	0.4921	1.82	0.7165
783	3.00	1.1811	1.375	0.5413	2.15	0.8464
787	3.00	1.1811	1.50	0.5905	1.937	0.7625
General average	2.979	1.1492	1.175	0.4625	1.904	0.7496
3 to 5 years old:						
700	3.00	1.1811	1.125	0.4429	2.014	0.7929
701	2.50	0.9842	1.125	0.4429	1.819	0.7169
702	2.875	1.1318	1.25	0.4921	1.907	0.7507
703	3.25	1.2795	1.125	0.4429	1.957	0.7704
705	3.50	1.3779	1.25	0.4921	2.218	0.8732
706	3.00	1.1811	1.00	0.3937	1.91	0.7519
707	3.00	1.1811	1.00	0.3937	1.859	0.7318
711	3.00	1.1811	1.50	0.5905	2.079	0.8185
712	3.00	1.1811	1.125	0.4429	1.47	0.7755
713	2.50	0.9842	1.00	0.3937	1.849	0.7279
716	3.25	1.2795	1.50	0.5905	2.141	0.8429
717	3.75	1.4763	1.50	0.5905	2.063	0.8122
718	3.50	1.3779	1.50	0.5905	2.139	0.8421
719	3.00	1.1811	1.375	0.5413	2.106	0.8291
720	3.00	1.1811	1.375	0.5413	2.086	0.8212
721	3.125	1.2303	1.375	0.5413	2.262	0.8905
722	3.25	1.2795	1.50	0.5905	2.165	0.8523
723	2.50	0.9842	1.25	0.4921	1.899	0.7476
770	2.875	1.1318	1.375	0.5413	1.94	0.7637
771	3.00	1.1811	1.50	0.5905	2.03	0.7992
784	2.50	0.9842	1.375	0.5413	1.96	0.7716
785	3.25	1.2795	1.125	0.4429	1.93	0.7598
786	3.50	1.3779	1.375	0.5413	1.95	0.7677
General average	3.049	1.2003	1.288	0.5070	1.989	0.7830
RAMS.						
1 year old:						
736	3.00	1.1811	1.00	0.3937	1.995	0.7854
737	3.00	1.1811	1.00	0.3937	1.87	0.7362
738	3.00	1.1811	1.00	0.3937	1.87	0.7362
747	3.125	1.2303	1.25	0.4921	1.789	0.7143
748	3.25	1.2795	1.00	0.3937	1.995	0.7854
749	3.00	1.1811	0.75	0.2953	1.848	0.7275
750	2.50	0.9842	1.00	0.3937	1.669	0.6570
751	2.625	1.0334	1.00	0.3937	1.717	0.6759
General average	2.938	1.1566	1.00	0.3937	1.844	0.7259
2 years old:						
724	3.375	1.3287	1.00	0.3937	1.998	0.7866
725	3.125	1.2303	1.125	0.4429	2.097	0.8255
729	5.00	1.9685	1.00	0.3937	2.408	0.9480
733	3.25	1.2795	1.25	0.4921	2.092	0.8236
734	3.50	1.3779	1.25	0.4921	2.008	0.7906
735	3.00	1.1811	1.50	0.5905	2.133	0.8397
739	4.00	1.5748	1.00	0.3937	2.17	0.8543
752	3.50	1.3779	1.25	0.4921	2.23	0.8779
753	3.50	1.3779	1.00	0.3937	2.184	0.8598
754	3.375	1.3287	1.125	0.4429	2.049	0.8066
755	3.25	1.2795	1.25	0.4921	2.319	0.7948
756	3.00	1.1811	1.25	0.4921	2.009	0.7909
757	3.00	1.1811	1.375	0.5413	2.009	0.7909
758	3.50	1.3779	1.25	0.4921	1.99	0.7834
759	4.25	1.6732	1.25	0.4921	2.129	0.8381
760	3.375	1.3287	1.375	0.5413	1.94	0.7637
761	3.50	1.3779	1.375	0.5413	2.062	0.8118
General average	3.50	1.3779	1.213	0.4775	2.219	0.8736
3 years old:						
744	2.75	1.0826	1.375	0.5413	1.928	0.7629
747	3.625	1.4271	1.125	0.4429	1.889	0.7436
750	2.125	0.8366	1.00	0.3937	1.524	0.5999
752	2.50	0.9842	1.125	0.4429	1.67	0.6574
760	2.875	1.1318	1.00	0.3937	1.85	0.7283
General average	2.775	1.0925	1.125	0.4429	1.774	0.6984

Catalogue number of samples.	Highest.		Lowest.		Average.	
	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.
WISCONSIN—Continued.						
RAMS—continued.						
4 years old:						
726						
731						
General average	3.50	1.3779	1.25	0.4921	2.325	0.9153
	3.00	1.1811	1.00	0.3937	1.898	0.7472
EWES.	3.25	1.2598	1.125	0.4429	2.112	0.8314
Very old:						
714	3.00	1.1811	1.125	0.4429	1.776	0.6992
715	4.00	1.5748	1.50	0.5905	2.261	0.8901
General average	3.50	1.3779	1.312	0.5165	2.019	0.7948
MINNESOTA.						
RAMS.						
2 to 3 years old:						
502	3.00	1.1811	1.375	0.5413	2.096	0.8251
503	3.75	1.4763	1.50	0.5905	2.017	0.7940
504	3.25	1.2795	1.50	0.5905	2.127	0.8373
505	4.50	1.7716	1.25	0.4921	2.152	0.8472
506	3.50	1.3779	1.50	0.5905	2.037	0.8019
507	2.00	1.1811	1.50	0.5905	2.22	0.8740
508	3.00	1.1811	1.375	0.5413	2.174	0.8559
509	2.875	1.1318	1.375	0.5413	1.948	0.7606
510	3.50	1.3779	1.375	0.5413	2.14	0.8425
511	4.00	1.5748	1.50	0.5905	2.41	0.9488
512	4.00	1.5748	1.00	0.3937	2.06	0.8110
518	3.50	1.3779	1.00	0.3937	2.18	0.8582
514	3.50	1.3779	1.25	0.4921	2.061	0.8114
515	3.75	1.3763	1.25	0.4921	2.104	0.8283
516	3.75	1.7716	1.00	0.3937	2.093	0.8240
517	4.50	1.7716	1.50	0.5905	1.908	0.7511
518	3.50	1.3779	1.125	0.4429	2.069	0.8145
519	3.00	1.1811	1.50	0.5905	2.045	0.8051
520	3.00	1.1811	1.00	0.3937	1.851	0.7288
521	3.25	1.2795	1.25	0.4921	1.874	0.7377
General average	3.507	1.3807	1.307	0.5145	2.079	0.8185
EWES.						
2 to 3 years old:						
482	3.25	1.2795	1.125	0.4429	2.02	0.7952
483	3.50	1.3779	1.50	0.5905	2.00	0.7874
484	3.00	1.1811	1.00	0.3937	1.97	0.7755
485	3.125	1.2303	1.125	0.4429	1.95	0.7677
486	3.00	1.1811	1.25	0.4921	2.00	0.7874
487	2.75	1.0826	1.25	0.4921	1.94	0.7639
488	3.00	1.1811	1.50	0.5905	2.23	0.8779
489	4.00	1.5748	1.25	0.4921	1.99	0.7834
490	3.375	1.3287	1.25	0.4921	2.039	0.8027
491	3.375	1.3287	1.25	0.4921	2.06	0.8110
492	3.00	1.1811	1.125	0.4429	2.035	0.8011
493	3.875	1.5255	1.00	0.3937	2.072	0.8157
494	2.75	1.0826	1.00	0.3937	1.796	0.7070
495	3.75	1.4763	1.375	0.5413	2.145	0.8444
496	4.00	1.5748	1.00	0.3937	2.156	0.8488
497	3.50	1.3779	1.25	0.4921	1.917	0.7547
498	3.25	1.2795	1.25	0.4921	1.786	0.7031
499	3.25	1.2795	1.375	0.5413	2.008	0.7905
500	3.50	1.3779	1.25	0.4921	2.05	0.8070
501	3.00	1.1811	1.125	0.4429	2.03	0.7992
General average	3.315	1.3051	1.215	0.4783	2.005	0.7893
ILLINOIS.						
RAMS.						
1 year old:						
447	3.00	1.1811	1.125	0.4429	1.821	0.7169
448	2.50	0.9842	1.25	0.4921	1.79	0.7047
449	3.00	1.1811	1.375	0.5413	2.09	0.8228
450	2.50	0.9842	1.00	0.3937	1.71	0.6732
451	3.375	1.3287	1.125	0.4429	2.03	0.7992
452	2.50	0.9842	1.00	0.3937	1.595	0.6279
453	3.00	1.1811	1.50	0.5905	2.28	0.8976
454	3.00	1.1811	1.25	0.4921	1.93	0.7598
455	2.625	1.0334	1.125	0.4429	1.77	0.6968
456	3.00	1.1811	1.00	0.3937	1.796	0.7070
457	3.00	1.1811	1.125	0.4429	1.86	0.7322
458	3.375	1.3287	1.25	0.4921	2.07	0.8149
459	3.50	1.3779	1.00	0.3937	2.05	0.8070
460	3.50	1.3779	1.125	0.4429	2.241	0.8822
461	3.00	1.1811	1.25	0.4921	1.85	0.7440
462	2.875	1.1318	1.25	0.4921	2.03	0.7992
General average	2.984	1.1748	1.171	0.4610	1.934	0.7614

TABLE III.—*Extreme and average measurements of fineness of wools*—Continued.

Catalogue number of samples.	Highest.		Lowest.		Average.	
	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.
ILLINOIS—Continued.						
RAMS—continued.						
2 years old:						
442	3.50	1.3779	1.25	0.4921	1.98	0.7795
445	3.125	1.2303	1.125	0.4429	1.93	0.7598
446	2.50	0.9842	1.00	0.3937	1.85	0.7283
General average	3.041	1.1972	1.125	0.4429	1.92	0.7559
3 years old:						
440	3.00	1.1811	1.375	0.5413	2.072	0.8157
441	4.125	1.6240	1.25	0.4921	2.24	2.8818
General average	3.562	1.4023	1.312	0.5165	2.156	0.8488
EWES.						
Lamb:						
481	2.75	1.0826	1.00	0.3937	1.78	0.7007
Average	2.75	1.0826	1.00	0.3937	1.78	0.7007
1 year old:						
477	3.375	1.3287	1.125	0.4429	1.85	0.7283
478	2.875	1.1318	0.75	0.2953	1.918	0.7551
479	3.00	1.1811	1.125	0.4429	1.89	0.7440
480	3.875	1.5255	1.375	0.5413	1.93	0.7598
General average	3.281	1.2917	1.094	0.4307	1.897	0.7468
2 years old:						
463	3.00	1.1811	1.375	0.5413	2.07	0.8149
464	3.00	1.1811	1.00	0.3937	1.754	0.6905
465	2.50	0.9842	1.00	0.3937	1.611	0.6242
466	4.00	0.5748	1.00	0.3937	1.89	0.7440
467	3.00	1.1811	1.125	0.4429	1.789	0.7143
468	3.00	1.2811	1.125	0.4429	1.62	0.6377
469	3.25	1.2795	1.00	0.3937	1.838	0.7236
470	3.00	1.1811	1.00	0.3937	1.785	0.7027
471	3.50	1.3779	1.125	0.4429	2.095	0.8202
472	3.00	1.1811	1.125	0.4429	1.961	0.7720
473	3.00	1.1811	1.50	0.5905	2.11	0.8307
474	3.50	1.3779	1.25	0.4921	2.25	0.8858
General average	3.146	1.2385	1.135	0.4468	1.898	0.7472
3 years old:						
475	3.00	1.1811	1.125	0.4429	1.89	0.7440
476	3.00	1.1811	1.25	0.4921	1.98	0.7795
General average	2.00	0.7874	1.188	0.4677	1.94	0.7637
TEXAS.						
RAMS.						
2 years old:						
616	3.00	1.1811	1.125	0.4429	1.891	0.7444
617	2.50	0.9842	1.125	0.4429	1.82	0.7165
618	3.50	1.3779	1.25	0.4921	2.04	0.8031
619	3.00	1.1811	1.125	0.4429	1.93	0.7598
620	3.50	1.3779	1.25	0.4921	2.036	0.8015
621	3.00	1.1811	0.75	0.2953	1.93	0.7598
622	3.375	1.3282	1.00	0.3937	1.98	0.7795
623	3.50	1.3779	1.00	0.3937	1.90	0.7480
624	3.00	1.1811	1.125	0.4429	1.97	0.7755
625	3.00	1.1811	1.00	0.3937	1.84	0.7244
General average	3.237	1.2744	1.075	0.4232	1.933	0.7610
EWES.						
2 years old:						
605	3.00	1.1811	1.00	0.3937	1.781	0.7011
606	3.125	1.2303	1.00	0.3937	1.688	0.6645
607	3.00	1.1811	1.25	0.4921	1.886	0.7425
608	3.125	1.2303	1.125	0.4429	1.959	0.7712
609	3.00	1.1811	1.00	0.3937	1.837	0.7232
610	3.50	1.3779	1.00	0.3937	1.889	0.7436
611	3.00	1.1811	1.00	0.3937	1.758	0.6921
612	2.50	0.9842	1.00	0.3937	1.835	5.7224
613	2.50	0.9842	1.25	0.4921	1.836	0.7228
614	3.25	1.2795	1.125	0.4429	1.899	0.7476
615	3.00	1.1811	1.00	0.3937	1.885	0.7421
General average	3.00	1.1811	1.068	0.4200	1.75	0.6889
CALIFORNIA.						
RAMS.						
2 years old:						
634	3.00	1.1811	1.00	0.3937	1.68	0.6614
635	2.625	1.0344	1.00	0.3937	1.684	0.6629
636	3.50	1.3779	1.00	0.3937	1.789	0.7143
637	2.75	1.0826	1.25	0.4921	1.86	0.7322
638	4.50	1.7716	1.25	0.4921	1.998	0.7866
639	3.50	1.3779	1.25	0.4921	1.721	0.6775
640	3.00	1.1811	1.25	0.4921	2.018	0.7944
General average	3.278	1.2866	1.143	0.4499	1.821	0.7160
EWES.						
2 years old:						
626	3.50	1.3779	1.00	0.3937	1.674	0.6700
627	3.00	1.1811	1.125	0.4429	1.82	0.7165
628	2.50	0.9842	0.875	0.2445	1.66	0.6535
629	3.625	1.4271	1.125	5.4429	1.73	0.6811
630	2.25	0.8858	1.125	0.4429	1.616	0.6362
631	2.75	1.0826	1.125	0.4429	1.77	0.6968
632	3.25	1.2795	1.125	0.4429	1.842	0.7251
633	4.00	1.5748	1.25	0.4921	1.977	0.7783
641	2.625	1.0334	1.00	0.3937	1.665	0.6496
642	3.50	1.3779	1.00	0.3937	1.73	0.6811
643	3.625	1.4271	1.00	0.3937	2.093	0.8240
644	3.00	1.1811	1.125	0.4429	1.706	0.6716
649	2.50	0.9842	1.50	0.5905	2.099	0.8263
650	3.50	1.3779	1.375	0.5413	2.04	0.8031
651	3.50	1.3779	1.375	0.5413	2.12	0.8346
652	2.875	1.1318	1.375	0.5413	1.93	0.7598
653	3.00	1.1811	1.25	0.4921	2.09	0.8228
654	3.375	1.3287	1.25	0.4921	1.875	0.7380
655	3.00	1.1811	1.375	0.5413	1.92	0.7559
656	3.50	1.3779	1.375	0.5413	2.102	0.8275
658	3.00	1.1811	1.00	0.3937	2.05	0.8070
659	3.00	1.1811	1.375	0.5413	2.063	0.8122
660	3.00	1.1811	1.00	0.3937	1.882	0.7409
661	3.00	1.1811	1.25	0.4921	1.89	0.7440
662	2.50	0.9842	1.00	0.3937	1.779	0.7003
663	2.625	1.0334	1.00	0.3937	1.794	0.7062
664	3.125	1.2303	1.00	0.3937	1.984	0.7811
665	3.25	1.2795	1.00	0.3937	1.931	0.7602
666	2.625	1.0334	1.00	0.3937	1.773	0.6980
667	6.375	2.5098	1.375	0.5413	2.32	0.9133
668	2.50	0.9842	1.00	0.3937	1.896	0.7464
General average	3.157	1.2429	1.14	0.4488	1.865	0.7342
3 years old:						
645	3.50	1.3779	1.00	0.3937	1.93	0.7598
646	3.00	1.1811	1.00	0.3937	1.65	0.6496
647	3.375	1.3287	1.50	0.5905	2.29	0.9015
648	3.00	1.1811	1.50	0.5905	2.054	0.8086
General average	3.219	1.2673	1.25	0.4921	1.981	0.7799

TABLE IV.—*Extreme and average measurements of strain and stretch of wools.*

Catalogue number of samples.	STRAIN.						STRETCH.					
	Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
	grams.	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per cent.*	*mm.*	*per cent.*	*mm.*	*per cent.*
VERMONT.												
RAMS.												
2 years old:												
423	8.00	123.48	3.75	57.88	5.41	83.50	7.125	35.625	1.25	6.25	4.09	20.45
525	12.625	194.86	2.25	34.73	5.78	89.21	10.00	50.00	1.25	6.25	5.61	28.05
534	10.75	165.92	2.25	34.73	5.07	78.25	9.75	48.75	1.00	5.00	6.07	30.35
543	7.25	111.90	2.00	30.87	4.37	67.43	11.00	55.00	1.00	5.00	6.11	30.55
General average	9.652	149.04	2.563	39.558	5.158	79.61	9.469	47.345	1.125	5.625	5.455	27.28
3 years old:												
526	11.25	173.64	4.00	61.74	5.93	91.53	11.00	55.00	2.00	10.00	8.34	41.70
530	10.375	160.13	2.50	38.59	4.56	70.38	10.25	51.25	3.00	15.00	6.11	30.55
533	10.00	154.35	2.25	34.73	5.85	90.29	10.50	52.50	2.00	10.00	6.59	32.95
535	11.25	173.64	3.75	57.88	6.23	96.16	9.00	45.00	1.25	6.25	5.63	28.15
537	9.75	150.49	2.25	34.73	6.20	100.33	9.25	46.25	3.00	15.00	5.25	26.25
540	16.50	254.67	2.00	30.87	6.98	107.73	8.25	41.25	2.25	11.25	5.56	27.80
545	14.50	223.80	5.25	80.03	7.57	116.84	11.50	57.50	2.00	10.00	6.01	30.05
554	9.50	146.63	2.50	38.59	4.59	70.99	8.125	40.625	4.00	20.00	6.64	33.20
535	12.00	185.22	3.00	46.30	5.63	86.90	9.75	48.75	1.25	6.25	5.58	27.90
563	15.75	243.10	3.00	46.30	6.795	104.88	10.00	50.00	3.00	15.00	7.43	37.85
General average	12.088	186.57	3.05	47.075	5.87	90.60	9.703	48.82	2.375	11.875	6.311	31.55
EWES.												
2 years old:												
424	9.375	144.69	3.375	52.09	4.93	76.09	8.50	42.50	3.25	16.25	5.87	29.35
542	10.625	163.99	3.00	46.30	5.323	82.16	11.50	57.50	2.25	11.25	7.157	35.787
General average	10.00	154.35	3.188	49.21	5.126	79.12	10.00	50.00	2.75	13.75	6.513	32.565
3 years old:												
522	11.00	169.78	3.25	50.18	5.20	80.26	10.75	53.75	4.00	20.00	7.73	38.65
523	10.25	158.20	2.50	38.59	5.34	82.42	9.00	45.00	3.00	15.00	6.65	33.25
524	8.00	123.48	2.75	42.44	4.37	67.45	10.00	50.00	3.00	15.00	7.49	37.45
527	10.375	160.13	2.25	34.73	5.09	78.56	9.25	46.25	3.50	17.50	6.50	32.50
528	12.50	192.93	2.00	30.87	4.95	76.40	9.50	47.50	1.00	5.00	5.79	28.95
529	9.00	138.91	2.75	42.44	5.45	84.12	11.00	55.00	2.00	10.00	8.58	42.90
531	7.50	115.76	1.75	27.01	4.03	62.20	12.00	60.00	3.25	16.25	8.88	44.40
532	13.25	158.20	4.00	61.74	6.25	96.47	9.00	45.00	2.00	10.00	5.95	29.75
536	9.75	150.49	3.25	50.16	6.44	99.40	10.50	52.50	1.50	7.50	7.25	36.25
538	9.00	138.91	2.625	41.21	4.82	74.39	9.50	47.50	1.00	5.00	6.73	33.65
539	11.625	179.43	2.50	38.59	5.04	77.79	11.00	55.00	4.00	20.00	9.125	46.75
541	9.75	150.49	2.75	42.44	5.10	78.716	10.00	50.00	2.50	12.50	7.39	36.95
544	17.00	262.39	3.00	46.37	5.36	82.73	9.00	45.00	2.00	10.00	6.80	34.00
546	7.625	117.69	3.50	54.02	5.24	80.87	11.00	55.00	4.75	23.75	8.47	42.35
547	6.125	94.54	2.50	38.59	4.52	69.76	9.00	45.00	3.125	15.625	6.88	34.40
548	13.00	200.65	2.75	42.44	5.375	82.96	11.00	55.00	2.00	10.00	7.95	39.75
549	9.625	148.56	2.625	40.52	5.44	83.76	9.875	49.375	4.00	20.00	7.43	37.15
550	12.75	196.79	2.50	38.59	6.132	94.65	11.25	56.25	2.00	10.00	7.40	37.00
5515	7.00	108.04	3.25	50.18	5.10	78.72	11.00	55.00	1.75	8.75	8.00	40.00
552	11.00	169.78	3.25	50.16	6.88	106.19	11.00	55.00	1.25	6.25	8.12	40.60
553	7.25	111.90	2.50	38.59	3.94	68.12	9.00	45.00	1.25	6.25	5.29	26.45
556	11.25	173.64	3.625	55.95	6.03	93.07	9.50	47.50	2.75	13.75	6.68	33.40
557	9.50	146.63	1.75	27.01	4.69	72.39	10.50	52.50	3.00	15.00	6.87	34.35
558	6.50	100.33	2.75	42.44	4.48	68.84	9.00	45.00	1.50	7.50	6.61	33.05
559	6.50	100.33	2.25	34.73	4.24	65.44	9.50	47.50	3.75	18.75	7.182	35.91
560	8.00	123.48	1.75	27.01	4.625	71.39	10.00	50.00	1.50	7.50	6.58	32.90
561	8.375	129.27	1.50	23.15	4.255	65.67	8.875	44.375	1.00	5.00	5.81	29.05
562	13.375	206.44	2.00	30.87	6.39	98.62	9.125	45.625	1.25	6.25	6.42	32.10
General average	9.781	150.96	2.638	40.72	5.17	79.80	10.004	50.02	2.415	12.075	7.126	35.63
NEW YORK.												
RAMS.												
2 years old:												
669	8.50	131.19	1.75	27.01	4.01	61.88	9.00	45.00	1.875	9.375	6.78	33.90
670	7.50	115.76	2.75	42.45	4.32	66.831	10.50	52.50	4.000	20.00	8.01	40.05
671	8.50	131.194	3.00	46.304	5.43	83.809	9.25	46.25	2.75	13.75	7.49	37.45
672	6.75	104.18	1.50	23.15	3.54	54.64	11.75	58.75	5.00	25.00	8.23	41.15
673	6.00	92.60	1.625	25.08	3.80	58.56	10.25	51.25	1.50	7.50	8.40	42.00
674	7.00	108.042	2.75	42.45	4.69	72.39	11.00	55.00	1.50	7.50	7.88	39.40
675	9.125	140.84	2.50	38.59	5.09	78.56	9.00	45.00	2.38	12.50	6.89	34.45
676	11.00	169.78	2.75	42.45	5.32	82.112	10.00	50.00	4.00	20.00	8.13	40.65
677	8.25	127.34	1.875	28.94	4.57	70.54	10.00	50.00	5.00	25.00	7.75	38.75
678	9.00	138.911	2.25	34.73	4.48	69.146	9.50	47.50	2.35	11.25	7.48	37.40
691	10.50	162.063	2.00	30.869	5.03	77.219	8.125	40.625	1.00	5.00	4.98	24.90
692	9.00	138.911	2.50	38.587	5.373	67.573	11.00	55.00	5.25	26.25	8.593	42.965
693	11.25	173.64	3.00	46.304	5.915	91.295	10.00	50.00	3.00	15.00	6.915	34.575
General average	8.644	133.417	2.227	35.016	4.66	71.925	9.952	49.76	3.048	15.24	7.58	37.90
EWES.												
2 years old:												
679	6.00	92.608	3.00	46.304	4.335	66.909	10.25	51.25	2.75	13.75	8.54	42.70
680	8.375	129.285	2.625	40.516	4.59	70.844	11.75	58.75	1.75	8.75	7.285	36.265
681	9.00	138.911	2.50	38.586	4.623	71.354	9.25	46.25	3.25	16.25	6.803	34.34
682	7.50	115.76	2.00	30.869	3.575	55.175	11.00	55.00	2.50	12.50	8.075	40.375
683	12.25	189.075	2.00	30.869	5.153	79.545	11.00	55.00	5.50	27.50	8.652	43.26
684	9.50	146.629	2.375	36.657	5.21	80.414	11.00	55.00	2.75	13.75	7.427	37.135
685	10.50	162.063	2.25	34.728	5.33	82.265	9.875	39.375	4.00	20.00	7.62	38.10
686	7.75	119.618	2.00	30.869	4.81	74.24	11.50	57.50	1.00	5.00	7.525	37.625
687	8.00	123.477	2.00	30.869	4.53	69.918	10.75	53.75	5.125	25.625	8.193	40.965
688	8.75	135.053	3.00	46.304	5.63	86.897	11.50	57.50	2.00	10.00	7.98	39.90
689	10.375	160.133	1.75	27.011	5.345	82.498	10.25	51.25	2.50	12.50	7.31	36.55
690	10.75	165.922	3.00	46.304	5.25	81.032	11.25	56.25	5.00	25.00	9.03	45.15
694	8.25	127.346	2.00	30.869	4.865	75.089	10.125	50.625	3.00	15.00	7.937	39.685
695	10.00	154.346	3.00	46.304	5.75	88.749	9.00	45.00	2.00	10.00	6.60	33.00
696	15.50	239.24	2.50	38.58	6.125	94.53	9.00	45.00	2.00	10.00	5.867	29.335
697	13.00	200.65	2.00	30.869	5.82	89.829	11.00	55.00	6.25	31.25	8.59	42.95
General average	9.711	149.885	2.375	36.657	5.059	78.08	10.301	52.055	3.211	16.055	7.717	38.585

TABLE IV.—*Extreme and average measurements of strain and stretch of wools*—Continued.

Catalogue number of samples.	STRAIN.						STRETCH.					
	Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
PENNSYLVANIA.												
RAM.												
Lamb:	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per cent.*	*mm.*	*per cent.*	*mm.*	*per cent.*
570	7.25	111.90	3.00	46.30	4.33	66.831	9.75	48.75	2.00	10.00	7.36	36.80
584	6.75	104.18	1.625	25.08	3.78	58.54	8.75	43.75	1.50	7.50	5.97	29.85
577	16.50	254.67	4.75	73.31	7.44	114.83	9.00	45.00	3.00	15.00	6.67	33.35
578	12.50	192.93	3.50	54.02	6.89	106.34	9.50	47.50	2.00	10.00	6.56	32.80
580	14.75	227.66	3.25	50.16	7.13	110.05	11.00	55.00	2.00	10.00	7.49	37.45
779	8.50	131.19	3.00	46.30	5.47	84.43	10.75	53.75	3.00	15.00	7.46	37.30
General average	11.04	170.398	3.187	49.189	5.84	90.138	9.791	48.955	2.25	11.25	6.917	34.585
2 years old:												
582	6.00	92.608	2.00	30.87	3.41	52.63	13.75	68.75	3.00	15.00	8.75	43.75
583	4.625	71.384	1.375	21.223	2.675	40.52	10.50	52.50	1.75	8.75	6.38	31.90
584	4.00	61.738	1.75	27.01	2.57	39.666	11.00	55.00	2.75	13.75	7.69	38.45
585	7.50	115.76	1.00	15.44	2.74	42.29	8.25	41.25	2.75	13.75	6.21	31.05
586	5.375	82.96	1.25	19.30	3.26	50.30	10.00	50.00	3.25	16.25	6.99	34.95
587	5.25	81.03	1.00	15.44	2.83	43.68	12.00	60.00	3.75	18.75	9.08	45.40
General average	5.458	84.242	1.396	20.21	2.914	44.976	10.917	54.585	2.875	14.375	7.516	37.58
WETHER.												
2 years old:												
780	15.75	243.09	2.25	34.73	5.61	86.59	9.00	45.00	2.00	10.00	6.58	32.90
781	8.75	135.05	2.00	30.87	4.263	65.79	12.00	60.00	5.00	25.00	9.518	47.59
General average	12.25	189.07	2.125	32.799	4.936	76.19	10.50	52.50	3.50	17.50	8.049	40.245
EWE.												
Lambs:												
575	13.00	200.65	1.375	21.22	3.80	58.65	9.75	48.75	3.00	15.00	6.96	34.80
576	10.00	154.35	2.00	30.87	4.23	65.29	10.75	53.75	2.50	12.50	7.60	38.00
General average	11.50	177.498	1.688	26.05	4.01	61.89	10.25	51.25	2.75	13.75	7.28	36.40
2 years old:												
772	8.00	123.48	2.375	36.66	4.75	76.47	9.50	47.50	1.75	8.75	6.68	33.40
773	9.25	142.77	3.00	46.30	5.16	79.64	9.75	48.75	4.75	23.75	7.83	39.15
774	10.50	162.06	2.75	42.44	4.60	70.99	10.00	50.00	3.75	18.75	7.17	35.85
775	15.75	243.09	3.00	46.30	7.39	114.06	9.50	47.50	2.00	10.00	7.35	36.75
776	8.75	135.05	1.75	27.01	3.66	56.49	10.00	50.00	5.00	25.00	7.74	38.70
777	8.125	125.41	2.125	32.798	4.81	74.24	9.00	45.00	2.00	10.00	6.62	33.10
778	9.25	142.77	1.75	27.01	3.90	60.20	9.75	48.75	4.75	23.75	7.94	39.70
General average	9.946	153.512	2.392	36.919	4.896	75.567	9.655	48.275	3.429	17.145	7.333	36.665
3 years old:												
581	6.50	100.32	2.25	34.73	4.16	64.21	9.875	49.375	4.75	23.75	7.45	37.25
588	4.875	75.24	1.50	23.15	3.04	47.08	9.75	48.75	3.00	15.00	6.81	34.05
589	5.75	88.748	2.00	30.87	3.20	49.39	11.00	55.00	2.75	13.75	7.83	39.15
590	4.75	73.31	1.00	15.44	2.36	34.43	10.00	50.00	2.50	12.50	6.86	34.30
591	6.75	104.18	2.25	34.73	3.43	52.94	9.25	46.25	3.00	15.00	7.32	36.60
592	4.50	69.46	1.75	27.01	2.95	45.38	12.00	60.00	2.00	10.00	7.79	38.95
593	3.50	54.02	1.25	19.25	2.14	33.03	10.00	50.00	5.00	25.00	7.99	39.95
594	3.625	55.95	1.00	15.435	2.44	37.66	9.50	47.50	2.00	10.00	6.55	32.75
595	5.25	81.03	2.25	34.73	3.70	57.11	11.00	55.00	6.75	33.75	9.18	45.90
596	3.50	54.02	1.125	17.36	2.29	34.73	9.00	45.00	2.00	10.00	6.59	32.95
597	3.625	55.95	0.75	11.58	1.89	29.17	10.00	50.00	1.00	5.00	6.33	31.65
General average	4.784	73.839	1.557	24.03	2.879	44.44	10.125	50.625	3.159	15.795	7.336	36.68
WISCONSIN.												
RAMS.												
1 year old:												
736	9.75	150.49	3.00	46.304	5.69	87.823	10.00	50.00	2.00	10.00	6.72	33.60
737	9.00	138.911	2.00	30.869	3.968	61.244	10.375	51.875	3.875	19.375	7.293	36.465
738	5.50	84.89	1.25	19.294	3.23	49.822	8.25	41.25	1.75	8.75	5.488	27.44
747	6.00	92.608	2.00	30.869	3.31	51.089	9.00	45.00	2.00	10.00	4.10	24.50
748	9.50	146.63	2.00	30.869	4.573	70.582	9.25	46.25	2.00	10.00	5.275	26.375
749	7.75	119.62	3.00	46.304	5.335	82.344	9.50	47.50	2.50	12.50	6.365	31.825
750	7.75	119.62	2.00	30.869	3.67	56.645	8.50	42.50	2.50	12.50	5.02	25.10
751	8.00	123.477	1.875	28.95	4.038	62.325	9.00	45.00	2.00	10.00	4.623	23.115
General average	7.90	121.933	2.140	33.041	4.239	65.427	9.234	46.172	2.328	11.641	5.611	28.055
2 years old:												
724	6.00	92.608	2.875	44.375	3.918	60.472	8.00	40.00	1.25	6.25	4.74	23.70
728	7.75	119.62	3.50	54.021	5.18	79.951	10.25	51.25	1.50	7.50	7.49	37.45
729	13.00	200.65	2.75	42.45	5.49	84.74	9.00	45.00	4.00	20.00	6.53	32.65
733	6.625	102.25	1.00	15.435	4.07	61.84	10.00	50.00	0.75	3.75	5.27	26.35
734	13.125	202.58	2.25	34.73	5.91	91.22	10.50	52.50	5.25	26.25	7.51	37.55
735	9.375	144.70	2.75	42.445	5.208	80.383	9.00	45.00	1.875	9.375	6.188	30.94
739	10.75	165.92	3.00	46.304	5.46	84.27	10.00	50.00	3.00	15.00	7.10	35.50
752	9.75	150.49	3.00	46.304	5.25	81.031	10.25	51.25	5.50	27.50	8.75	43.75
753	9.75	150.49	3.50	54.02	5.36	82.73	11.75	58.75	4.25	21.25	8.30	41.50
754	6.125	94.537	2.25	34.73	3.935	60.735	11.50	57.50	6.00	30.00	8.603	43.05
755	8.50	131.194	1.875	28.94	4.483	69.193	10.00	50.00	3.00	15.00	7.625	38.125
756	6.00	92.608	2.25	34.73	3.745	57.803	10.75	53.75	3.00	15.00	7.84	39.20
757	8.75	135.05	2.50	38.586	5.125	79.10	10.50	52.50	2.75	13.75	6.94	34.70
758	9.50	146.63	3.00	46.304	5.13	79.18	11.50	57.50	2.25	11.25	7.26	36.30
759	16.50	254.67	3.00	46.304	6.93	106.96	9.00	45.00	4.00	20.00	6.66	33.30
760	8.75	135.05	2.50	38.586	4.51	69.61	9.75	48.75	3.75	18.75	6.91	34.55
761	6.75	104.18	2.75	42.45	4.39	67.76	7.75	38.75	1.00	5.00	4.46	22.30
General average	9.235	142.538	2.632	40.630	4.764	73.53	9.971	49.855	3.125	15.625	6.957	34.785

TABLE IV.—*Extreme and average measurements of strain and stretch of wools*—Continued.

Catalogue number of samples.	STRAIN.						STRETCH.					
	Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
WISCONSIN—Continued.												
RAMS—continued.												
3 years old:	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per cent.*	*mm.*	*per cent.*	*mm.*	*per cent.*
725	11.25	173.64	2.25	34.73	5.18	79.951	8.25	41.25	2.00	10.00	5.23	26.15
727	8.50	131.194	3.25	50.163	5.098	78.686	10.25	51.25	4.75	23.75	7.47	37.35
730	7.25	111.901	1.75	27.011	3.36	51.86	8.50	42.50	1.125	5.625	6.308	31.54
732	7.25	111.901	3.00	46.304	5.105	78.793	10.75	53.75	3.00	15.00	7.575	37.875
740	8.125	125.41	2.25	34.73	4.21	64.98	9.25	46.25	3.00	15.00	6.86	34.30
General average	8.475	130.809	2.50	38.580	4.591	70.86	9.40	47.00	2.775	13.875	6.669	33.445
4 years old:												
726	12.50	192.932	4.00	61.738	7.045	108.738	9.25	46.25	1.00	5.00	5.595	27.975
731	10.625	163.992	1.50	23.152	4.177	64.47	9.00	45.00	2.00	10.00	5.523	27.615
General average	11.562	178.454	2.75	42.485	5.611	86.603	9.125	45.625	1.50	7.50	5.529	27.645
EWES.												
1 year old:												
741	7.625	117.689	1.625	25.082	3.588	55.38	9.875	49.375	1.125	5.625	4.578	22.30
742	8.50	131.194	2.00	30.869	3.855	59.50	9.875	49.375	4.00	20.00	7.425	37.125
743	10.00	154.896	3.00	46.304	5.29	81.649	9.75	48.75	1.25	6.25	6.51	32.55
General average	8.708	134.364	2.208	34.069	4.244	65.504	9.833	49.165	3.138	15.94	6.171	32.855
2 years old:												
698	7.00	108.042	2.25	34.728	4.185	64.59	10.00	50.00	3.00	15.00	6.85	34.25
699	10.375	160.134	2.375	36.647	4.125	63.665	9.000	45.00	2.00	10.00	6.199	30.995
704	13.625	210.297	2.00	30.869	5.213	80.461	10.25	51.25	1.50	7.50	7.238	36.19
708	6.00	92.608	2.50	38.586	3.828	59.084	11.75	58.75	6.00	30.00	8.65	43.25
709	8.00	123.477	2.25	34.728	4.075	62.896	10.00	50.00	2.25	11.25	5.48	27.40
710	7.00	108.042	2.375	36.657	4.298	66.334	9.00	45.00	2.00	10.00	6.645	33.225
744	5.75	88.749	1.25	19.294	3.208	49.514	9.00	45.00	2.00	10.00	6.413	32.065
745	12.00	185.215	2.25	34.728	5.77	89.058	10.25	51.25	2.00	10.00	6.96	34.80
746	8.375	129.265	2.00	30.869	3.843	59.310	10.00	50.00	1.25	6.25	6.765	33.83
762	7.125	109.97	2.00	30.869	3.91	60.35	9.25	46.25	4.00	20.00	6.59	32.95
763	7.50	115.76	2.00	30.869	4.52	69.76	10.50	52.50	1.00	5.00	6.75	33.75
764	10.25	158.20	3.25	50.16	5.79	89.37	10.25	51.25	1.75	8.75	6.70	33.50
765	10.50	162.06	3.00	46.304	5.35	82.58	11.75	58.75	5.25	20.25	9.10	45.50
766	9.50	146.63	2.50	38.586	5.05	77.94	9.875	49.375	5.00	25.00	7.63	38.15
767	12.75	196.79	2.25	34.728	4.53	73.99	8.75	43.75	4.25	21.25	6.82	34.10
768	12.00	185.215	2.00	30.869	5.10	78.72	10.75	53.75	3.00	15.00	7.20	36.00
769	12.625	194.86	2.00	30.869	6.07	93.688	9.00	45.00	1.75	8.75	7.11	35.55
782	6.25	96.47	2.25	34.73	3.71	57.26	9.00	45.00	1.00	5.00	6.49	32.45
783	8.50	131.19	2.75	42.44	5.35	82.58	9.50	47.50	1.625	8.125	7.495	37.475
787	9.875	152.42	2.50	38.59	5.03	77.64	9.875	49.375	4.00	20.00	7.61	38.05
General average	9.25	142.760	2.288	35.313	4.65	71.770	9.437	47.185	2.731	13.655	7.034	35.170
3 to 5 years old:												
700	14.25	219.943	3.00	46.304	5.81	89.675	10.00	50.00	2.25	11.25	6.37	31.85
701	9.25	142.77	3.00	46.304	4.89	75.475	9.50	47.50	2.50	12.50	7.41	37.05
702	9.25	142.77	3.00	46.304	5.16	79.643	10.75	53.75	3.00	15.00	7.924	39.62
703	13.25	204.540	2.75	42.445	6.555	101.174	9.50	47.50	3.00	15.00	7.16	35.80
705	12.00	185.215	2.50	38.586	5.218	80.538	10.00	50.00	5.00	25.00	7.16	38.05
706	10.25	158.205	3.00	46.304	5.705	89.443	10.00	50.00	2.00	10.00	5.69	28.45
707	8.00	123.477	2.25	34.728	4.24	65.442	8.125	40.625	1.50	7.50	5.575	27.875
711	12.50	192.932	3.00	46.304	5.79	89.366	10.25	51.25	2.00	10.00	6.25	31.25
712	7.75	119.618	2.00	30.869	3.25	50.163	10.50	52.50	4.125	20.625	7.345	36.725
713	6.25	96.467	1.00	15.435	3.178	49.051	10.75	53.75	5.00	25.00	8.433	42.165
716	11.50	177.498	2.625	40.52	4.823	74.472	10.75	53.75	2.50	12.50	7.343	36.715
717	11.25	173.64	3.00	46.304	5.759	88.888	10.00	50.00	6.00	30.00	8.358	41.79
718	13.00	185.215	3.00	46.304	6.10	94.151	10.50	52.50	2.75	13.75	7.915	39.575
719	8.25	127.34	2.125	32.80	4.818	74.36	8.75	43.75	2.50	12.50	6.145	30.725
720	10.50	162.06	3.00	46.304	5.44	84.119	11.00	55.00	3.00	15.00	7.97	39.85
721	14.00	216.084	3.00	46.304	5.893	90.596	8.625	43.125	1.875	9.375	5.905	29.525
722	11.625	179.43	3.75	57.88	6.585	101.64	11.50	57.50	5.25	26.25	8.49	42.45
723	8.25	127.34	2.50	38.586	4.465	68.915	10.00	50.00	2.00	10.00	8.275	41.375
770	7.25	111.901	2.00	30.869	4.13	63.74	10.00	50.00	3.50	17.50	7.14	35.70
771	13.00	200.65	2.625	40.52	5.38	83.04	9.75	48.75	4.25	21.25	7.83	39.15
784	10.50	162.06	2.00	30.889	4.80	74.08	10.00	50.00	1.25	6.25	6.46	32.30
785	10.25	158.205	3.00	46.304	5.53	85.35	10.00	50.00	2.00	10.00	7.33	36.65
786	11.00	169.741	3.00	46.304	5.34	82.42	10.00	50.00	2.00	10.00	7.64	38.20
General average	10.57	163.161	2.658	41.024	5.172	79.83	10.011	50.055	3.011	15.055	7.242	36.21
Old ewes:												
714	7.25	111.901	1.50	23.152	3.88	59.886	10.00	50.00	3.50	17.50	7.438	37.19
715	11.75	181.35	2.25	34.728	4.89	75.475	11.00	55.00	2.50	12.50	6.725	33.625
General average	9.50	146.628	1.875	28.940	4.385	67.68	10.50	52.50	3.00	15.00	7.082	35.41
MINNESOTA.												
RAMS.												
2 to 3 years old:												
502	11.00	169.78	3.50	54.02	6.52	100.63	10.50	52.50	2.00	10.00	7.33	36.65
503	16.50	254.67	3.00	46.30	6.24	96.31	9.00	45.00	1.00	5.00	5.81	29.05
504	17.75	273.96	2.75	42.44	5.79	89.37	11.00	55.00	1.50	7.50	9.22	46.10
505	8.00	123.48	3.50	54.02	5.13	79.18	9.875	49.375	2.25	11.25	6.83	34.10
506	14.00	216.08	2.75	42.44	6.15	94.92	9.00	45.00	2.50	12.50	6.78	33.90
507	12.625	194.86	4.00	61.75	6.33	97.70	8.50	42.50	3.25	16.25	6.83	34.15
508	8.625	133.123	2.625	40.52	5.26	81.19	8.00	40.00	1.00	5.00	5.52	27.60
509	6.25	96.47	2.75	42.44	4.43	68.37	10.50	52.50	5.25	26.25	8.70	43.50
510	10.00	154.35	2.75	42.44	5.12	79.03	10.25	51.25	2.00	10.00	8.11	40.55
511	13.00	200.65	2.75	42.44	6.33	97.70	6.75	48.75	4.50	22.50	7.19	35.95
512	12.25	189.073	3.75	57.879	6.45	99.553	10.50	52.50	6.00	30.00	8.63	43.15
513	10.625	163.992	3.50	54.02	5.53	85.35	9.25	46.25	1.50	7.50	6.27	31.35
514	10.75	165.92	3.625	55.95	6.39	98.627	9.00	45.00	5.00	25.00	7.48	37.40
515	13.50	208.367	3.25	50.162	7.17	110.665	10.50	52.50	3.00	15.00	8.06	40.30
516	15.00	231.519	3.00	46.30	5.98	92.319	13.00	50.00	3.00	15.00	7.15	35.75

TABLE IV.—*Extreme and average measurements of strain and stretch of wools*—Continued.

Catalogue number of samples.	STRAIN.						STRETCH.					
	Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
MINNESOTA—Continued.												
RAMS—continued.												
2 to 3 years old—Continued:	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per cent.*	*mm.*	*per cent.*	*mm.*	*per cent.*
517	15.00	231.519	2.50	38.586	7.19	110.97	10.125	50.625	5.50	27.50	8.41	42.05
518	11.00	169.781	2.375	36.656	5.46	84.273	9.50	47.50	1.25	6.25	6.93	34.65
519	9.75	150.486	3.00	46.30	6.14	94.768	9.50	47.50	1.75	8.75	7.04	35.20
520	15.00	231.52	3.375	52.091	7.78	120.08	9.00	45.00	2.75	13.75	7.04	35.20
521	14.25	219.94	3.25	50.162	7.08	109.277	9.00	45.00	1.00	5.00	6.53	32.65
General average	12.244	188.98	3.10	47.847	6.12	94.46	9.637	48.18	2.80	14.00	7.29	36.45
EWES.												
2 to 3 years old:												
482	15.50	239.24	3.25	50.16	6.38	101.56	8.00	40.00	2.00	10.00	5.12	25.60
483	12.75	196.79	3.50	54.021	6.62	102.18	11.00	55.00	1.50	7.50	6.93	34.65
484	12.25	189.073	3.00	46.304	5.57	85.97	10.75	53.75	1.75	8.75	6.36	31.80
485	15.25	235.38	4.00	61.74	7.02	108.35	9.75	48.75	3.00	15.00	7.07	35.35
486	7.625	117.69	2.75	42.44	4.75	73.31	12.25	61.25	1.00	5.00	4.11	20.55
487	7.25	111.90	3.00	46.304	5.21	80.414	9.25	46.25	1.00	5.00	6.39	31.95
488	17.50	270.11	4.125	63.67	7.30	112.67	8.125	40.625	2.25	11.25	5.53	27.65
489	12.50	192.93	3.25	50.16	7.48	115.45	9.25	46.25	1.50	7.50	5.95	29.75
490	12.375	191.00	3.625	55.95	6.86	105.88	8.50	42.50	2.00	10.00	5.96	29.80
491	8.25	127.34	3.00	46.30	5.13	79.18	8.75	43.75	2.50	12.50	6.09	30.45
492	8.875	136.98	3.75	57.879	6.16	99.077	11.25	56.25	6.25	31.25	8.42	42.10
493	9.50	146.63	3.00	46.304	5.58	86.125	11.75	58.75	1.75	8.75	6.69	33.45
494	7.25	111.90	2.875	44.374	4.65	71.77	8.50	42.50	2.00	10.00	6.21	31.05
495	9.625	148.558	2.50	38.586	5.77	89.059	9.75	48.75	2.75	13.75	6.597	32.985
496	24.50	378.147	2.00	30.87	9.36	144.467	14.75	73.75	3.50	17.50	7.63	38.15
497	9.375	144.698	2.25	34.725	4.66	77.924	11.50	57.50	1.00	5.00	7.11	35.55
498	10.00	154.346	3.50	54.021	5.17	79.796	9.25	46.25	6.00	30.00	7.66	38.30
499	10.375	160.133	2.375	36.656	5.34	82.42	10.00	50.00	2.00	10.00	6.85	34.25
500	15.50	239.239	3.50	54.021	7.37	113.75	10.00	50.00	2.50	12.50	6.72	33.60
501	8.00	123.477	3.50	54.021	5.72	88.286	11.00	55.00	4.00	20.00	8.16	40.80
General average	11.712	180.769	3.137	48.418	6.11	94.305	10.168	50.84	2.51	12.65	6.578	32.89
ILLINOIS.												
RAMS.												
1 year old:												
447	9.50	146.63	1.75	27.01	4.14	63.90	10.00	50.00	1.50	7.50	6.16	30.80
448	7.25	111.90	1.75	27.01	3.50	54.02	8.50	42.50	3.50	17.50	6.39	31.95
449	12.75	196.79	3.00	46.304	6.37	98.32	9.25	46.25	1.75	8.75	5.83	29.15
450	5.125	79.10	2.00	30.869	3.30	50.93	8.00	40.00	2.25	11.25	5.75	28.75
451	11.00	169.78	3.00	46.304	5.93	91.53	9.25	46.25	2.00	10.00	5.22	26.10
452	8.00	123.47	2.50	38.58	3.97	60.97	9.00	45.00	2.25	11.25	6.24	31.20
453	12.75	196.79	4.00	61.74	7.38	113.91	8.00	40.00	1.75	8.75	5.11	25.55
454	9.50	146.63	3.00	46.30	5.84	90.14	9.50	47.50	1.75	8.75	6.37	31.85
455	6.50	100.33	2.625	40.53	4.16	64.21	8.75	43.75	1.00	5.00	5.84	29.20
456	7.75	119.62	2.00	30.87	4.37	67.45	8.75	43.75	1.75	8.75	6.22	31.10
457	6.00	92.61	2.25	34.73	3.89	60.04	9.25	46.25	1.50	7.50	4.30	21.50
458	12.50	192.93	2.25	34.73	4.38	67.60	8.875	44.375	0.75	3.75	2.33	11.65
459	19.00	293.26	2.25	34.73	6.55	101.10	9.00	45.00	1.25	6.25	5.60	28.00
460	14.75	227.66	3.25	50.16	6.87	106.04	7.75	38.75	1.00	5.00	3.84	19.20
461	9.50	146.63	3.00	46.30	5.12	79.03	8.25	41.25	2.00	10.00	5.42	27.10
462	8.75	135.05	3.00	46.30	6.00	92.61	7.25	36.25	2.25	11.25	5.54	27.70
General average	10.039	154.947	2.601	40.144	5.11	78.87	8.71	43.55	1.76	8.80	5.385	26.925
2 years old:												
442	12.75	196.79	2.125	32.798	5.65	87.21	8.25	41.25	1.75	8.75	5.83	29.15
445	11.625	179.427	2.00	30.87	4.58	70.69	8.25	41.25	1.00	5.00	4.17	20.85
446	8.75	135.05	2.375	36.67	4.36	67.29	8.50	42.50	1.00	5.00	4.97	24.85
General average	11.041	170.413	2.133	32.911	4.863	75.058	8.33	41.65	1.25	6.25	4.99	24.95
3 years old:												
440	10.00	154.35	2.50	38.59	5.11	78.87	7.375	36.875	1.25	6.25	4.56	22.80
441	10.625	163.99	2.625	40.53	4.86	74.86	7.75	38.75	1.25	6.25	4.08	20.40
General average	10.312	159.160	2.562	39.542	4.985	76.94	7.562	37.81	1.25	6.25	4.32	21.60
EWES.												
Lamb:												
481	8.00	123.48	3.00	46.30	4.82	74.39	9.75	48.75	5.00	25.00	7.77	38.85
1 year old:												
477	10.75	165.921	2.00	30.87	5.09	78.56	7.75	38.75	1.00	5.00	3.90	19.50
478	9.00	138.91	2.00	30.87	4.20	64.82	7.00	35.00	1.00	5.00	3.50	17.50
479	8.375	129.26	2.00	30.87	4.22	65.134	9.75	48.75	1.00	5.00	4.78	23.90
480	7.75	119.62	2.50	38.59	4.45	68.68	9.50	47.50	1.25	6.25	4.79	23.95
General average	8.968	138.417	2.15	33.184	4.49	68.301	8.50	42.50	1.065	5.32	4.242	21.21
2 years old:												
463	17.50	270.11	4.00	61.74	8.27	127.64	9.75	48.75	1.50	7.50	6.91	34.55
464	8.00	123.477	2.25	34.73	4.85	74.875	8.50	42.50	1.50	7.50	5.19	25.95
465	7.00	108.04	1.50	23.151	3.29	50.78	9.00	45.00	2.00	10.00	6.33	31.65
466	11.25	173.64	2.75	42.44	5.83	89.98	10.00	50.00	2.00	10.00	6.24	31.20
467	6.35	104.18	2.25	34.73	4.22	65.123	7.50	37.50	1.75	8.75	4.75	23.75
468	17.00	262.16	2.00	30.87	5.15	79.49	9.75	48.75	2.00	10.00	6.38	31.90
469	7.125	109.97	2.50	38.59	4.45	68.68	10.875	54.375	2.875	14.375	7.50	37.50
470	10.00	154.35	2.25	34.73	5.02	77.48	8.25	41.25	1.00	5.00	5.74	28.70
471	12.50	192.93	2.875	44.37	5.75	88.75	8.00	40.00	1.75	8.75	5.90	29.50
472	11.50	177.50	3.00	46.30	6.54	100.94	10.25	51.25	1.50	7.50	6.67	33.35
473	9.00	138.91	3.00	46.30	5.73	88.44	11.00	55.00	2.00	10.00	6.40	32.00
474	10.75	165.92	3.25	50.16	6.75	104.18	8.00	40.00	1.25	6.25	5.46	27.30
General average	10.698	165.118	2.635	40.669	5.48	84.581	9.239	46.19	1.76	8.80	6.123	30.615

TABLE IV.—*Extreme and average measurements of strain and stretch of wools*—Continued.

Catalogue number of samples.	STRAIN.						STRETCH.					
	Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
ILLINOIS—Continued.												
EWES—continued.												
3 years old:	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per cent.*	*mm.*	*per cent.*	*mm.*	*per cent.*
475	11.50	177.50	2.50	38.59	5.49	84.74	11.50	57.50	2.50	12.50	7.48	37.40
476	10.00	154.35	3.25	50.16	5.44	83.96	9.50	47.50	2.75	13.75	6.86	34.30
General average	10.75	166.101	2.875	44.374	5.465	84.35	10.50	52.50	2.62	13.10	7.17	35.85
TEXAS.												
RAMS.												
2 years old:												
616	9.75	150.49	2.75	42.44	4.34	66.989	8.25	41.25	1.25	6.25	5.49	27.45
617	6.375	98.40	2.25	34.73	4.16	64.21	8.00	40.00	4.00	20.00	5.78	28.90
618	13.00	200.65	3.00	46.304	6.45	99.55	7.00	35.00	1.25	6.25	4.73	23.65
619	8.75	135.05	1.375	21.23	3.71	57.26	7.25	36.25	1.00	5.00	3.83	19.15
620	11.75	181.356	2.00	30.869	5.79	89.366	9.25	46.25	1.00	5.00	4.75	23.75
621	10.75	165.92	2.00	30.869	4.80	74.09	7.50	37.50	2.75	13.75	5.19	25.95
622	10.25	158.21	1.625	25.08	4.78	73.778	8.50	42.50	1.00	5.00	4.39	21.95
623	7.625	117.69	2.00	30.869	3.81	58.80	8.25	41.25	1.25	6.25	4.02	20.10
624	9.75	150.49	2.00	30.869	5.27	81.34	9.25	46.25	2.25	11.25	6.72	33.60
625	7.00	108.01	1.375	21.23	3.63	56.03	8.00	40.00	1.00	5.00	3.74	18.70
General average	9.50	146.629	2.038	31.456	4.674	72.14	8.125	40.625	1.675	8.375	4.864	24.32
EWES.												
2 years old:												
605	8.25	127.355	2.00	30.869	4.00	61.728	8.75	43.75	3.25	16.25	6.51	31.05
606	8.00	123.477	2.25	34.728	4.26	65.751	9.00	45.00	2.25	11.25	6.405	32.025
607	9.50	146.629	2.25	34.728	4.792	73.963	8.00	40.00	3.00	15.00	6.092	30.46
608	8.50	131.203	2.50	38.586	4.72	72.85	9.50	47.50	1.75	8.75	5.92	29.60
609	10.00	154.346	1.625	25.08	4.193	64.718	8.00	40.00	3.00	15.00	5.948	29.74
610	13.25	204.569	3.375	52.092	5.13	79.179	14.25	71.25	2.25	11.25	6.94	34.70
611	10.25	158.205	2.50	38.586	4.52	70.204	9.75	48.75	2.50	12.50	6.09	30.45
612	6.50	100.325	2.50	38.586	4.03	62.251	8.00	40.00	2.75	13.75	5.45	27.25
613	7.375	113.829	3.375	52.092	4.828	74.518	11.00	55.00	1.50	7.50	7.12	36.60
614	8.50	131.194	2.75	42.44	4.76	73.468	8.25	41.25	2.00	10.00	5.93	29.65
615	10.00	154.346	1.75	27.017	4.032	63.157	8.25	41.25	2.25	11.25	4.896	24.98
General average	9.089	140.146	2.443	37.707	4.484	69.208	9.341	46.705	2.409	12.045	6.19	30.95
CALIFORNIA.												
RAMS.												
2 years old:												
634	8.375	129.26	1.75	27.01	3.94	60.81	9.00	45.00	3.875	19.375	7.37	36.85
635	6.25	96.47	2.50	38.59	4.15	64.05	9.75	48.75	3.00	15.00	7.43	37.15
636	12.75	196.70	1.625	25.08	5.38	83.04	9.50	47.50	2.50	12.50	6.63	33.15
637	6.625	102.25	2.25	34.73	3.98	61.43	10.00	50.00	1.75	8.75	7.33	36.65
638	13.25	204.51	1.75	27.01	5.00	77.17	10.00	50.00	3.50	17.50	7.38	36.90
639	8.00	123.48	2.25	34.73	3.94	60.81	8.75	43.75	4.875	24.375	7.32	36.60
640	10.25	158.20	2.25	34.73	5.31	81.96	9.875	49.375	5.00	25.00	7.89	39.45
General average	9.359	144.51	2.024	31.702	4.528	69.897	9.554	47.77	3.70	18.50	7.34	36.76
EWES.												
2 years old:												
626	6.00	92.608	2.00	30.87	2.23	34.33	7.00	35.00	1.50	7.50	3.36	16.80
627	15.00	154.55	2.75	42.45	4.47	68.99	7.00	35.00	1.25	6.25	4.75	23.75
628	5.25	81.03	0.75	11.58	2.49	38.43	10.25	51.25	1.75	8.75	7.43	37.15
629	6.75	104.18	2.25	34.73	3.70	57.11	10.25	51.25	4.00	20.00	8.39	41.95
630	6.00	92.61	2.00	30.87	3.48	53.712	11.00	55.00	2.00	10.00	8.49	42.45
631	7.625	117.688	2.00	30.87	3.94	60.812	10.50	52.50	2.25	11.25	7.24	36.20
632	7.00	108.04	3.00	46.30	4.95	76.40	10.00	50.00	1.25	6.25	6.84	34.20
633	10.75	165.92	2.50	38.59	5.312	81.99	10.77	53.75	4.875	24.375	8.187	40.935
641	9.00	138.911	2.00	30.869	4.598	70.969	9.125	45.625	2.75	13.75	7.26	36.30
642	14.00	216.054	1.75	27.01	4.68	72.23	9.00	45.00	2.50	12.50	6.545	32.725
643	14.625	225.73	3.375	52.08	6.52	100.63	10.00	50.00	3.25	16.25	7.57	37.85
644	9.00	138.91	2.25	34.73	4.06	62.66	10.50	52.50	3.00	15.00	7.96	39.80
649	7.75	119.62	2.125	32.798	3.74	57.73	10.50	52.50	2.625	13.125	6.55	32.75
650	14.00	216.08	2.75	42.45	5.26	81.186	10.00	50.00	4.50	22.50	8.25	41.46
651	8.00	123.48	2.25	34.73	4.47	68.99	9.00	45.00	2.25	11.25	6.17	30.85
652	8.25	127.34	1.625	25.08	3.43	52.94	8.00	40.00	0.75	3.75	5.49	27.45
653	8.25	127.34	3.00	46.30	4.86	75.011	10.50	52.50	2.50	12.50	7.63	38.15
654	8.50	131.94	2.50	38.59	4.38	67.603	9.75	48.75	1.50	7.50	6.29	31.45
655	7.50	115.76	2.25	34.73	3.88	59.87	9.75	48.75	1.00	5.00	5.56	27.80
656	7.375	113.829	1.00	15.435	3.99	61.53	10.00	50.00	1.00	5.00	6.47	32.35
657 (lost)												
658	10.25	158.20	3.00	46.30	5.12	79.03	10.00	50.00	1.75	8.75	7.95	39.75
659	6.00	92.61	1.75	27.01	3.145	48.54	7.125	36.625	2.00	10.00	4.183	20.915
660	6.00	92.61	1.50	23.15	3.396	52.416	10.00	50.00	5.00	25.00	8.040	40.23
661	8.75	135.05	3.00	46.30	4.70	72.54	10.00	50.00	3.50	17.50	7.58	37.90
662	9.625	148.56	1.25	19.29	3.53	54.48	10.50	52.50	1.00	5.00	7.255	36.275
663	7.50	115.76	3.00	46.30	4.34	66.986	11.00	55.00	3.50	17.50	7.815	39.075
664	10.75	165.92	3.00	46.30	4.758	73.437	10.25	15.25	4.875	24.375	7.673	38.365
665	5.00	77.173	2.00	30.87	3.243	50.05	8.875	44.375	2.25	11.25	6.113	30.565
666	10.375	160.124	1.375	21.22	3.69	56.85	10.25	51.25	2.00	10.00	7.393	36.965
667	11.00	169.78	3.00	46.30	6.565	110.326	11.00	55.00	1.50	7.50	7.695	38.425
668	6.50	100.325	2.00	30.87	3.633	56.074	10.75	53.75	6.00	30.00	8.83	44.15
General average	8.657	133.617	2.22	34.262	4.279	66.043	9.763	48.81	2.577	12.88	7.093	35.01
3 years old:												
645	10.25	158.20	2.125	32.80	4.71	72.70	8.25	41.25	1.50	7.50	6.08	30.40
646	6.75	104.18	2.00	30.87	3.47	53.56	10.25	51.25	4.50	22.50	8.37	41.85
647	8.50	131.19	1.625	25.08	4.38	67.60	10.00	50.00	1.25	6.25	6.94	34.70
648	11.00	169.78	2.75	42.44	5.33	82.27	11.00	55.00	2.25	11.25	8.05	40.25
General average	9.12	140.763	2.12	32.721	4.47	68.992	9.875	49.37	2.73	13.65	7.36	36.80

TABLE V.—*General results of all measurements.*

CALIFORNIA WOOLS.

Catalogue number of samples.	Crimp per inch.	Fineness.		Strain		Stretch.		$\frac{D'^2 \times S}{D^2}$	$18109 \frac{S}{D^2}=R$	$E=\frac{R}{P}$
		Centimillimeters.	Thousandths of inch.	Grams.	Grains.	Millimeters.	Per cent.			
RAMS.										
2 years old:								*Grams.*		
634	22	1.68	0.6614	3.94	60.81	7.37	36.85	22.336	25284	65420
635	25	1.684	0.6629	4.15	64.05	7.43	37.15	23.415	26507	71351
636	20	1.789	0.7143	5.38	83.04	6.63	33.15	26.890	30446	93981
637	20	1.86	0.7322	3.98	61.43	7.33	36.65	18.407	20836	56850
638	14	1.998	0.7866	5.00	77.17	7.38	36.90	20.04	22682	61467
639	20	1.721	0.6775	3.94	60.81	7.32	36.60	21.284	24085	65806
640	25	2.018	0.7944	5.31	81.96	7.89	39.45	20.815	23564	59732
General average	20.80	1.821	0.7169	4.528	69.887	7.34	36.70	21.847	24730	67384
EWES.										
2 years old:										
626	30	1.674	0.6590	3.33	51.39	3.36	16.80	19.013	21516	128070
627	26	1.82	0.7165	4.47	68.99	4.75	23.75	21.592	24436	102887
628	22	1.86	0.6535	2.49	38.43	7.43	37.15	14.457	15993	43051
629	26	1.73	0.6811	3.70	57.11	8.39	41.95	19.78	22387	53366
630	26	1.616	0.6362	3.48	53.712	8.49	42.45	21.321	24130	56843
631	25	1.77	0.6968	3.94	60.812	7.24	36.20	20.122	22772	62906
632	22	1.842	0.7251	4.95	76.40	6.84	34.20	23.342	26417	77241
633	20	1.977	0.7783	5.312	81.99	8.187	40.935	21.745	24605	60102
641	22	1.665	0.6436	4.598	70.969	7.26	36.30	26.538	30038	75469
642	25	1.73	0.6811	4.68	72.23	6.545	32.725	25.019	28318	86520
643	22	2.093	0.8240	6.52	100.63	7.57	37.85	23.814	32042	84654
644	18	1.706	0.6716	4.06	62.66	7.96	39.80	22.839	25262	79907
649	22	2.099	0.8263	3.74	57.73	6.55	32.75	13.582	15370	46932
650	20	2.04	0.8031	5.26	81.186	8.25	41.40	20.223	22885	55278
651	22	2.12	0.8346	4.47	68.89	6.17	30.85	15.913	18007	58370
652	22	1.93	0.7598	3.43	52.94	5.49	27.45	14.733	16672	60734
653	20	2.09	0.8228	4.86	75.011	7.63	38.15	17.802	20146	52808
654	22	1.875	0.7380	4.38	67.603	6.29	31.45	19.934	22557	71496
655	22	1.92	0.7559	3.88	59.87	5.56	27.80	16.840	19059	68560
656	16	2.102	0.8275	3.99	61.58	6.47	32.35	14.448	16355	50555
658	22	2.05	0.8070	5.12	79.03	7.95	39.75	19.943	22568	56776
659	25	2.063	0.8122	3.145	48.54	4.183	20.915	11.823	13375	63980
660	20	1.882	0.7409	3.396	52.416	8.046	40.23	15.331	17755	44133
661	16	1.89	0.7440	4.70	72.54	7.58	37.90	21.052	23824	62862
662	20	1.774	0.7003	3.53	54.48	7.255	36.275	17.946	20316	55998
663	20	1.794	0.7062	4.34	66.986	7.815	39.075	21.575	24424	62524
664	20	1.984	0.7811	4.758	73.437	7.673	38.365	19.340	21889	57047
665	22	1.931	0.7602	3.243	50.05	6.113	30.565	13.915	15755	51537
666	20	1.773	0.6980	3.69	56.85	7.333	36.665	18.782	21255	57961
667	20	2.32	0.9133	6.565	110.326	7.685	38.425	19.516	20093	57488
668	18	1.896	0.7464	3.633	56.074	8.83	44.15	16.170	18301	41453
General average	22.1	1.897	0.7468	4.279	66.043	7.003	35.01	19.025	21538	61520
3 years old:										
645	22	1.93	0.7598	4.71	72.70	6.08	30.40	20.231	22894	75317
646	25	1.65	0.6496	3.47	53.56	8.37	41.85	20.393	23078	55143
647	22	2.29	0.9015	4.38	67.60	6.94	34.70	13.333	15087	43478
648	22	2.058	0.8086	5.33	82.27	8.05	40.25	20.135	22795	56632
General average	22.7	1.982	0.7803	4.47	68.992	7.36	36.80	18.207	20610	60004

VERMONT WOOLS.

RAMS.										
2 years old:										
423	20	2.157	0.8492	5.41	83.50	4.09	20.45	18.605	21051	105340
525	12	2.443	0.9618	5.78	89.21	5.61	28.05	15.496	17133	61079
534	14	1.788	0.7039	5.07	78.25	6.07	30.35	25.374	28714	94609
543	16	1.861	0.7326	4.37	67.45	6.11	30.55	20.142	22794	74614
General average	15.50	2.06	0.8110	5.158	79.61	5.455	27.28	16.476	18768	68799
3 years old:										
526	16	2.335	0.9192	5.93	91.53	8.34	41.70	17.402	19693	47226
530	20	2.056	0.8094	4.56	70.38	6.11	30.55	17.26	19535	63944
533	20	1.983	0.7807	5.85	90.29	6.59	32.95	23.875	27027	82026
535	14	2.245	0.8838	6.23	96.16	5.63	28.15	19.778	22387	79528
537	20	1.906	0.7503	6.50	100.33	5.25	26.25	28.628	32403	123442
540	16	2.039	0.8027	6.98	107.73	5.56	27.80	26.862	30400	109354
545	16	2.011	0.7917	7.57	116.84	6.01	30.05	29.949	33897	112804
554	16	2.079	0.8183	4.60	70.99	6.64	33.20	17.028	19274	58056
555	16	2.237	0.8807	5.63	86.90	5.58	27.90	18.001	20372	73720
563	14	2.23	0.8779	6.795	104.88	7.43	37.15	21.859	24741	66504
General average	16.80	2.122	0.8354	5.87	90.60	6.311	31.55	20.858	23604	74677
EWES.										
2 years old:										
424	20	2.014	0.7929	4.93	76.09	5.87	29.35	19.447	22013	75004
542	20	1.622	0.6385	5.323	82.16	7.157	35.787	32.452	36727	102618
General average	20	1.818	0.7157	5.126	79.12	6.513	32.565	24.815	28091	88819
3 years old:										
522	20	1.97	0.7755	5.20	80.26	7.73	38.65	21.438	24266	62784
523	22	1.963	0.7728	5.34	82.42	6.65	33.25	13.868	15341	46138
524	20	2.07	0.8149	4.37	67.45	7.49	37.45	16.469	18641	49775
527	20	1.982	0.7803	5.09	78.56	6.50	32.50	27.32	30933	95072
528	20	1.982	0.7803	4.95	76.40	5.79	28.95	20.161	22817	78816
529	20	2.00	0.7874	5.45	84.12	8.58	42.90	21.80	24673	57514
531	20	1.93	0.7598	4.03	62.20	8.86	44.30	17.713	20044	45247

TABLE V.—*General results of all measurements*—Continued.

VERMONT WOOLS—Continued.

Catalogue number of samples.	Crimp per inch.	Fineness		Strain.		Stretch.		$\frac{D^2 \times S}{D^2}$	$18109\frac{S}{D^2}=R$	$E=\frac{R}{P}$
		Centimillimeters.	Thousandths of inch.	Grams.	Grains.	Millimeters.	Per cent.			
EWES—continued.								*Grams.*		
3 years old:										
532	20	2.261	0.8961	6.25	96.47	5.95	29.75	18.543	20983	70534
536	16	2.081	0.8192	6.44	99.40	7.25	36.25	23.794	26926	74278
538	16	2.055	0.8090	4.82	74.39	6.73	33.65	18.262	20667	61417
539	20	1.863	0.7334	5.04	77.79	8.135	40.75	[illegible]	26292	56249
541	22	1.651	0.6499	5.10	78.716	7.39	36.95	20.536	23875	91678
544	16	1.79	0.7047	5.36	82.73	6.80	34.00	[illegible]	30174	88747
546	20	1.749	0.6885	5.24	80.87	8.47	42.35	27.66	31306	73922
547	16	1.794	0.7062	4.52	69.76	6.88	34.40	22.47	25432	73928
548	20	1.853	[illegible]	5.375	82.96	7.05	39.75	25.046	28352	71325
549	20	2.010	0.7913	5.44	83.76	7.43	37.15	21.344	24379	65624
550	18	1.982	0.7803	6.132	94.65	7.40	37.00	24.975	28273	76413
551	16	2.033	0.8033	5.10	78.72	8.00	40.00	19.743	22342	55855
552	14	2.108	0.8279	6.88	106.19	8.12	40.60	24.89	28171	69386
553	14	1.769	[illegible]	3.94	68.12	5.29	26.45	15.819	17905	67695
556	16	2.019	0.7948	6.03	93.07	6.68	33.40	23.663	26773	80176
557	22	1.941	0.7641	4.69	72.39	6.87	34.35	19.918	22932	64141
558	20	2.021	0.7956	4.46	68.84	6.61	33.05	17.471	19773	59827
559	20	1.956	0.7700	4.24	65.44	7.182	35.91	17.731	20067	55882
560	20	1.934	0.7614	4.625	71.39	6.58	32.90	19.784	22387	68046
561	18	2.151	0.8468	4.266	65.87	5.81	29.05	14.714	16649	57311
562	16	2.020	0.7952	[illegible]	98.62	6.42	32.10	25.056	28363	88359
General average	18.50	1.962	0.7724	5.17	79.80	7.126	35.63	[illegible]	24323	68264

NEW YORK WOOLS.

RAMS.										
2 years old:										
669	16	1.99	0.7480	4.01	61.88	6.78	[illegible]	17.773	20112	59328
670	18	1.86	0.7322	4.32	66.831	[illegible]	40.05	19.979	22609	[illegible]
671	22	2.066	0.8133	5.43	83.809	7.49	37.45	20.354	23032	61502
672	22	1.96	0.7716	3.54	54.64	8.23	41.15	14.744	16683	40542
673	22	1.787	0.7035	3.80	58.56	[illegible]	42.00	19.039	21549	41309
674	20	1.79	0.7047	4.69	73.39	7.88	39.40	23.42	26507	67277
675	20	1.896	0.7464	5.09	78.56	6.89	[illegible]	22.655	25647	93723
676	22	1.92	0.7559	5.32	82.112	[illegible]	40.65	23.09	26134	[illegible]
677	20	2.05	0.8070	4.57	70.54	7.75	38.75	[illegible]	[illegible]	59822
678	20	1.967	0.7744	4.48	69.146	7.48	37.40	18.526	20972	56076
691	20	2.346	0.9236	5.03	77.219	[illegible]	2.490	14.864	16949	67099
692	[illegible]	1.916	0.7543	4.378	67.573	8.593	42.965	19.086	21114	49138
693	[illegible]	1.956	0.7700	5.915	91.295	6.915	34.575	19.649	22240	64315
General average	20	1.953	0.7696	4.66	71.925	7.58	37.90	19.508	22082	58623
EWES.										
2 years old:										
679	20	1.876	0.7385	4.335	66.909	[illegible]	42.70	[illegible]	22308	52244
680	22	2.15	0.8464	4.59	70.844	7.253	36.265	15.884	17564	[illegible]
681	[illegible]	2.036	0.8015	4.623	71.354	6.868	34.34	17.846	20203	58832
682	25	1.754	0.6905	3.575	55.175	8.075	40.375	18.593	21040	[illegible]
683	22	1.983	0.7807	5.153	79.535	8.652	43.26	20.966	[illegible]	54864
684	22	2.147	0.8452	5.21	80.414	7.427	37.135	18.083	[illegible]	[illegible]
685	20	1.927	[illegible]	[illegible]	[illegible]	7.62	38.10	22.966	[illegible]	[illegible]
686	22	[illegible]	0.7716	4.81	74.24	7.525	37.625	20.126	[illegible]	[illegible]
687	20	2.117	0.8334	[illegible]	[illegible]	[illegible]	40.965	17.593	[illegible]	[illegible]
688	25	1.989	0.7830	4.53	69.915	7.98	39.90	20.099	22749	[illegible]
689	[illegible]	2.364	0.9307	5.345	82.498	7.31	36.55	15.303	17317	47484
690	[illegible]	2.163	0.8515	5.25	81.032	9.03	45.15	17.954	20316	[illegible]
694	18	2.089	0.8224	4.865	75.089	7.937	39.685	17.837	[illegible]	[illegible]
695	22	2.337	0.9200	5.75	88.749	6.60	33.00	16.845	[illegible]	[illegible]
696	16	[illegible]	0.9283	6.125	94.53	5.867	29.335	17.621	[illegible]	[illegible]
697	20	2.31	0.9094	5.82	89.829	[illegible]	42.95	17.451	19750	[illegible]
General average	21.13	2.098	0.8259	5.059	78.08	7.717	38.585	18.386	20814	[illegible]

PENNSYLVANIA WOOLS.

RAMS.										
Lambs:										
570	[illegible]	1.604	0.6669	4.33	66.831	7.36	36.80	24.142	27322	74244
574	20	1.83	0.7204	3.78	58.54	5.97	29.85	18.06	[illegible]	66919
577	16	2.12	0.8346	7.44	114.83	6.67	[illegible]	26.467	29982	89000
578	20	2.10	0.8267	6.89	106.34	6.56	32.80	24.907	[illegible]	86266
580	20	2.08	0.8185	7.13	110.05	7.49	37.45	26.368	29166	77881
779	[illegible]	2.05	0.8070	5.47	84.43	7.46	37.30	20.83	[illegible]	[illegible]
General average	18.67	1.979	0.7791	5.84	90.138	6.917	34.585	23.850	[illegible]	78071
2 years old:										
582	[illegible]	1.39	0.5472	[illegible]	52.63	[illegible]	43.75	28.289	31962	73055
583	[illegible]	1.48	0.5826	2.675	40.52	6.38	31.90	12.642	[illegible]	[illegible]
584	22	1.30	0.5472	2.57	39.666	7.60	38.45	21.282	[illegible]	[illegible]
585	16	1.51	0.5944	2.74	42.29	6.21	[illegible]	[illegible]	21810	70941
586	[illegible]	1.66	0.6535	3.26	50.30	6.99	34.95	18.929	[illegible]	61803
587	22	1.44	0.5669	2.83	43.66	[illegible]	45.40	21.832	24707	[illegible]
General average	21	1.48	0.5826	2.914	44.976	7.516	37.58	21.285	[illegible]	64120

TABLE V.—*General results of all measurements*—Continued.

PENNSYLVANIA WOOLS—Continued.

Catalogue number of samples.	Crimp per inch.	Fineness.		Strain.		Stretch.		$\frac{D'^2 \times S}{D^2}$	$18109 \frac{S}{D^2} = R$	$E = \frac{R}{P}$
		Centimillimeters.	Thousandths of inch.	Grams.	Grains.	Millimeters.	Per cent.			
WETHERS.								*Grams.*		
2 years old:										
780	14	1.93	0.7598	5.61	86.59	6.58	32.90	19.141	21667	65844
781	14	2.094	0.8244	4.263	65.79	9.518	47 50	16.288	18751	39475
General average	14	2.012	0.7921	4.936	76.19	8.049	40.245	19.509	22082	54861
EWES.										
Lambs:										
575	16	1.85	0.7283	3.80	58.65	6.96	34.80	17.768	20112	57794
576	20	1.81	0.7125	4.23	65.29	7.60	38.00	20.658	23383	61535
General average	18	1.83	0.7204	4.01	61.89	7.28	36.40	19.159	21192	59576
2 years old:										
772	16	1.96	0.7716	4.75	76.47	6.68	33.40	19.784	22387	67027
773	16	1.97	0.7755	5.16	49.64	7.83	39.15	21.273	24634	62921
774	16	1.89	0.7440	4.60	70.99	7.17	35.85	20.604	23315	65035
775	14	2.13	0.8385	7.39	114.06	7.35	36.75	26.062	29495	80260
776	20	1.77	0.6968	3.66	56.49	7.74	38.70	18.692	21154	54786
777	20	1.85	0.7283	4.81	74.24	6.62	33.10	22.487	25454	76901
778	16	1.79	0.7047	3.90	60.20	7.94	39.70	19.48	21546	54271
General average	16.86	1.91	0.7519	4.896	75.567	7.333	36.665	21.473	24300	66266
3 years old:										
581	16	1.74	0.6850	4.16	64.21	7.45	37.25	21.984	24877	66784
588	20	1.65	0.6495	3.04	47.08	6.81	34.05	17.278	19558	45625
589	20	1.58	0.6220	3.20	49.39	7.83	39.15	20.51	23214	59294
590	25	1.49	0.5866	2.36	34.43	6.86	34.30	17.008	19252	56129
591	16	1.77	0.6968	3.43	52.94	7.32	36.60	17.517	19829	54178
592	22	1.53	0.6023	2.95	45.38	7.79	38.95	20.163	22817	59946
593	22	1.388	0.5464	2.14	33.03	7.99	39.95	17.773	20112	50344
594	20	1.48	0.5826	2.44	37.66	6.55	32.75	17.823	20169	61584
595	22	1.65	0.6496	3.70	57.11	9.18	45.90	17.273	19546	42584
596	22	1.46	0.5747	2.29	34.73	6.59	32.95	17.188	19456	59057
597	20	1.41	0.5551	1.89	29.17	6.33	31.65	15.565	17622	56976
General average	20.46	1.559	0.6137	2.879	44.44	7.336	36.68	18.36	20780	56652

WISCONSIN WOOLS.

Catalogue number of samples.	Crimp per inch.	Fineness.		Strain.		Stretch.		$\frac{D'^2 \times S}{D^2}$	$18109 \frac{S}{D^2} = R$	$E = \frac{R}{P}$
		Centimillimeters.	Thousandths of inch.	Grams.	Grains.	Millimeters.	Per cent.			
RAMS.										
1 year old:										
736	22	1.995	0.7854	5.69	87.823	6.72	33.60	22.875	25896	77061
737	22	1.87	0.7362	3.968	61.244	7.293	36.465	18.155	20554	56358
738	16	1.87	0.7362	3.23	49.822	5.488	27.44	14.778	16728	[illegible]
747	20	1.789	0.7143	3.81	51.089	4.10	20.50	16.547	18732	91373
748	16	1.995	0.7854	4.573	70.582	5.275	26.375	18.384	20803	80095
749	16	1.848	0.7275	4.335	82.344	6.365	31.825	24.995	28295	88895
750	22	1.669	0.6570	3.67	56.645	5.02	25.10	21.08	23859	95054
751	20	1.717	0.6759	4.038	62.325	4.623	23.115	21.915	24809	107306
General average	19.25	1.844	0.7259	4.237	65.427	5.611	28.055	19.937	22568	80429
2 years old:										
724	20	1.998	0.7866	3.918	60.472	4.74	23.70	15.704	17781	75024
728	22	2.097	0.8255	5.18	79.951	7.49	37.45	18.848	21335	56968
729	20	2.408	0.9480	5.49	84.74	6.53	32.65	15.149	16757	51322
733	20	2.092	0.8236	4.07	61.84	5.27	26.35	14.879	16841	65403
734	20	2.008	0.8692	5.91	91.22	7.51	37.55	23.452	25937	69073
735	20	2.133	0.8397	5.208	80.383	6.188	30.94	18.316	20735	68577
739	22	2.17	0.8543	5.46	84.27	7.10	35.50	18.552	20995	59141
752	22	2.23	0.8779	5.25	81.031	8.75	43.75	16.891	19105	43669
753	20	2.184	0.8598	5.36	82.73	8.30	41.50	17.979	20350	49036
754	20	2.049	0.8066	3.935	60.735	8.603	43.05	14.997	16977	39436
755	16	2.019	0.7948	4.483	69.193	7.625	38.125	17.596	19920	52122
756	16	2.009	0.7909	3.745	57.803	7.84	39.20	23.529	26632	67937
757	20	2.009	0.7909	5.125	79.10	6.94	34.70	20.317	22998	66278
758	20	1.99	0.7834	5.13	79.18	7.26	36.30	20.727	23462	64635
759	16	2.129	0.8381	6.93	106.96	6.66	33.30	24.462	27684	83135
760	20	1.94	0.7637	4.51	69.61	6.91	34.55	19.173	21697	62799
761	22	2.062	0.8118	4.39	67.76	4.46	22.30	16.554	18731	83997
General average	19.765	2.219	0.8736	4.764	73.53	6.957	34.785	15.48	17520	50361
3 years old:										
725	20	1.938	0.7629	5.18	79.951	5.23	26.15	20.066	22715	86866
727	16	1.889	0.7436	5.098	78.686	7.47	37.35	22.864	25873	69272
730	20	1.524	0.5999	3.36	51.86	6.308	31.54	23.147	26201	83073
732	22	1.67	0.6574	5.105	78.793	7.575	37.875	27.964	31645	83541
740	16	1.85	0.7283	4.21	64.98	6.86	34.30	19.684	22274	[illegible]
General average	18.80	1.774	0.6984	4.591	70.86	6.689	33.445	23.341	26416	78973
4 years old:										
726	20	2.325	0.9153	7.045	108.738	5.535	27.675	20.852	23598	85254
731	22	1.898	0.7472	4.177	64.47	5.523	27.615	18.467	20904	75686
General average	21	2.112	0.8314	5.611	86.603	5.529	27.645	20.127	22783	82399

TABLE V.—*General results of all measurements*—Continued.

WISCONSIN WOOLS—Continued.

Catalogue number of samples.	Crimp per inch.	Fineness.		Strain.		Stretch.		$\frac{D^2 \times S}{D^2}$	$18109 \frac{S}{D^2} = R$	$E = \frac{R}{P}$
		Centimillimeters.	Thousandths of inch.	Grams.	Grains.	Millimeters.	Per cent.			
EWES.										
1 year old:								*Grams.*		
741	20	2.017	0.7940	3.588	55.38	4.578	22.39	14.111	29060	132814
742	20	1.941	0.7641	3.855	59.50	7.425	37.125	16.372	18528	49899
743	20	2.062	0.7881	5.29	81.640	6.51	32.55	21.117	25794	73439
General average	20	1.989	0.7818	4.244	65.504	6.171	30.855	17.215	19469	63155
2 years old:										
698	20	1.891	0.7118	4.185	64.59	6.85	34.25	20.575	23293	68007
699	20	1.905	0.7736	4.125	63.665	6.190	30.995	17.093	19387	78732
704	20	1.871	0.7366	5.213	80.461	7.238	36.19	23.820	26971	74526
708	16	1.845	0.7263	3.828	59.084	8.65	43.25	17.183	19448	44858
709	22	1.823	0.7177	4.075	62.896	5.48	27.40	19.615	22206	81044
710	20	2.064	0.8153	4.298	66.338	6.645	33.225	16.111	18233	54871
744	20	1.595	0.6279	3.208	49.514	6.413	32.065	20.176	22840	71219
745	22	1.779	0.7003	5.77	89.058	6.96	34.80	29.17	33015	94870
746	20	1.868	0.7354	3.843	59.316	6.765	33.83	17.621	19942	58940
762	20	1.79	0.7047	3.91	60.35	6.59	32.95	19.525	22104	67084
763	20	2.02	0.7952	4.52	69.76	6.75	33.75	17.723	20056	59424
764	16	2.103	0.8279	5.79	89.37	6.70	33.50	20.947	23711	76780
765	22	1.902	0.7488	5.35	82.58	9.10	45.50	23.662	26779	58859
766	25	1.96	0.7716	5.05	77.94	7.63	38.15	21.033	23802	62390
767	20	1.876	0.7385	4.58	70.69	6.82	34.10	20.822	23564	69104
768	16	1.928	0.7401	5.10	78.72	7.20	36.00	23.068	26133	72693
769	16	2.031	0.7992	6.07	93.688	7.11	35.55	23.568	26676	75940
782	22	1.82	0.7165	3.71	57.26	6.49	32.45	17.92	20282	62582
784	20	2.15	0.8464	5.35	82.58	7.495	37.475	18.519	20961	58626
787	25	1.937	0.7625	5.03	77.64	7.61	38.05	21.43	24277	63879
General average	20.40	1.904	0.7496	4.65	71.77	7.034	35.170	20.518	23225	66036
3 to 5 years old:										
700	20	2.014	0.7927	5.81	89.675	6.37	31.85	22.919	25941	81448
701	20	1.819	0.7160	4.80	75.475	7.41	37.05	23.646	26767	72246
702	20	1.907	0.7507	5.16	79.643	7.924	39.62	22.703	25692	64846
703	22	1.957	0.7704	6.555	101.174	7.16	35.80	27.385	31000	86383
705	22	2.218	0.8732	5.218	80.538	7.61	38.05	19.971	22607	51451
706	20	1.91	0.7519	5.795	89.443	5.69	28.45	25.412	28759	101090
707	16	1.859	0.7318	4.24	65.442	5.575	27.875	19.63	22217	79360
711	16	2.079	0.8185	5.79	89.366	6.25	31.25	21.483	24255	77617
712	16	1.47	0.7755	3.25	50.163	7.315	36.725	24.064	27231	74140
713	20	1.843	0.7279	3.178	49.051	8.433	42.165	14.873	16830	39910
716	20	2.141	0.8429	4.825	74.472	7.343	36.715	16.842	19058	51905
717	16	2.063	0.8122	5.759	88.888	8.358	41.79	21.65	24504	58635
718	20	2.139	0.8381	6.10	94.151	7.915	39.575	21.342	24141	60994
719	16	2.100	0.8291	4.818	74.36	6.145	30.725	17.381	19223	62555
720	20	2.086	0.8212	5.44	84.179	7.97	39.85	20.003	22636	56758
721	16	2.262	0.8905	5.833	90.596	5.905	29.525	18.429	20859	72283
722	20	2.165	0.8523	6.585	101.64	8.49	42.45	22.470	25443	59936
723	18	1.899	0.7476	4.465	68.915	8.275	41.375	19.810	24421	54183
770	20	1.94	0.7637	4.13	63.74	7.14	35.70	17.557	19878	55671
771	20	2.03	0.7992	5.38	83.04	7.83	39.15	20.869	23643	60392
784	22	1.96	0.7716	4.80	74.08	6.46	32.30	19.992	22625	70046
785	25	1.93	0.7598	5.53	85.35	7.33	36.65	24.873	28148	78882
786	20	1.93	0.7677	5.34	82.42	7.64	38.20	22.469	25432	66375
General average	19.312	1.989	0.7830	5.172	79.83	7.242	36.21	20.917	23677	65390
Very old:										
714	22	1.776	0.6992	3.88	59.886	7.438	37.19	19.652	22274	61287
715	14	2.261	0.8901	4.89	75.475	6.725	33.625	15.305	17328	51525
General average	18	2.019	0.7948	4.385	67.68	7.082	35.41	17.211	19478	55008

MINNESOTA WOOLS.

RAMS.										
2 to 3 years old:										
502	16	2.096	0.8251	5.53	109.63	7.33	36.65	23.746	26869	73313
503	20	2.017	0.7940	6.24	96.31	5.81	29.05	24.524	27762	95532
504	18	2.122	0.8373	5.79	89.37	9.22	46.10	20.477	23180	50281
505	20	2.152	0.8472	5.13	79.18	6.82	34.10	17.723	20056	58814
506	16	2.037	0.8019	6.15	94.92	6.78	33.90	23.714	26835	79160
507	16	2.22	0.8740	6.33	97.70	6.83	34.15	20.55	23259	68167
508	18	2.174	0.8559	5.30	81.19	5.52	27.60	17.806	20147	73064
509	20	1.942	0.7646	4.43	68.37	8.70	43.50	18.079	20091	47496
510	20	2.14	0.8425	5.12	79.03	8.11	40.55	17.868	20048	49684
511	14	2.41	0.9488	6.33	97.70	7.19	35.95	17.437	19739	54866
512	16	2.06	0.8110	6.45	99.553	8.63	43.15	24.339	27555	63890
513	22	2.18	0.8582	5.53	85.35	6.27	31.35	18.619	21074	67223
514	18	2.061	0.8114	6.39	98.627	7.48	37.40	24.075	27248	72841
515	16	2.104	0.8283	7.17	110.665	8.06	40.30	25.914	29325	72767
516	20	2.093	0.8240	5.98	92.319	7.15	35.75	21.841	24719	69143
517	16	1.988	0.7511	7.19	110.97	8.41	42.05	31.599	35765	85054
518	20	2.069	0.8145	5.46	84.273	6.93	34.65	20.408	23098	66730
519	20	2.045	0.8051	6.14	94.768	7.04	35.20	23.491	26586	75530
520	20	1.851	0.7288	7.78	120.06	7.04	35.20	36.332	41119	116814
521	16	1.874	0.7377	7.08	109.277	6.53	32.65	32.256	36501	111704
General average	17.16	2.079	0.8185	6.12	94.46	7.29	36.45	22.655	26233	74830

TABLE V.—*General results of all measurements*—Continued.

MINNESOTA WOOLS—Continued.

Catalogue number of samples.	Crimp per inch.	Fineness.		Strain.		Stretch.		$\frac{D'^2 \times S}{D^2}$	$18109 \frac{S}{D^2}=R$	$E=\frac{R}{F}$
		Centimillimeters.	Thousandths of inch.	Grams.	Grains.	Millimeters.	Per cent.			
EWES.										
2 to 3 years old:								*Grams.*		
482	20	2.02	0.7952	6.38	101.56	5.12	25.60	25.017	28307	110572
483	20	2.00	0.7874	6.62	102.18	6.93	34.65	26.48	29970	86494
484	20	1.97	0.7755	5.57	85.97	6.36	31.80	22.964	25986	81718
485	20	1.95	0.7677	7.02	108.35	7.07	35.35	29.538	33434	94580
486	20	2.00	0.7874	4.75	73.31	4.11	20.55	19.00	21504	104644
487	22	1.94	0.7639	5.21	80.414	6.39	31.95	22.149	25069	78465
488	20	2.23	0.8779	7.30	112.67	5.53	27.65	23.487	26575	96110
489	20	1.99	0.7834	7.48	115.45	5.95	29.75	30.221	34203	114970
490	16	2.039	0.8027	6.86	105.88	5.96	29.80	26.40	29880	100270
491	16	2.06	0.8110	5.13	79.18	6.09	30.45	19.342	21889	71886
492	16	2.035	0.8011	6.16	99.077	8.42	42.10	23.80	26937	63984
493	16	2.072	0.8157	5.58	86.125	6.69	33.45	20.696	23417	70006
494	16	1.796	0.7070	4.65	71.77	6.21	31.05	33.070	26111	86051
495	16	2.145	0.8444	5.77	89.059	6.597	32.985	20.065	22704	68842
496	14	2.156	0.8488	9.36	144.467	7.63	38.15	32.218	36467	95588
497	14	1.917	0.7547	4.66	77.924	7.11	35.55	20.336	23010	64725
498	16	1.786	0.7031	5.17	79.796	7.66	38.30	25.933	29348	76626
499	16	2.008	0.7905	5.34	82.42	6.85	34.25	21.19	23983	70012
500	20	2.05	0.8070	7.37	113.75	6.72	33.60	28.059	31759	94520
501	22	2.03	0.7992	5.72	88.286	8.16	40.80	22.209	25138	61612
General average	18	2.005	0.7893	6.11	94.305	6.578	32.89	24.318	27526	83110

ILLINOIS WOOLS.

RAMS.										
1 year old:										
447	20	1.821	0.7169	4.14	63.90	6.16	30.80	19.976	22613	73420
448	16	1.79	0.7047	3.50	54.02	6.39	31.95	17.478	19784	61893
449	16	2.09	0.8228	6.37	98.32	5.83	29.15	23.333	26405	90584
450	20	1.71	0.6732	3.30	50.93	5.75	28.75	18.056	20440	71097
451	14	2.03	0.7992	5.93	91.53	5.22	26.10	23.024	26054	99824
452	16	1.595	0.6279	3.97	60.97	6.24	31.20	24.974	28261	90581
453	20	2.28	0.8976	7.38	113.91	5.11	25.55	22.715	25714	100644
454	16	1.93	0.7598	5.84	90.14	6.37	31.85	25.085	28397	89159
455	16	1.77	0.6968	4.16	64.21	5.84	29.20	21.245	24051	82366
456	20	1.796	0.7070	4.37	67.45	6.22	31.10	21.676	24537	78899
457	16	1.86	0.7322	3.89	60.04	4.30	21.50	17.99	20361	94703
458	16	2.07	0.8149	4.38	67.60	2.33	11.65	16.355	18516	158939
459	16	2.05	0.8070	6.55	101.10	5.60	28.00	24.932	28216	100771
460	20	2.241	0.8822	6.87	106.04	3.84	19.20	21.887	24775	129038
461	20	1.89	0.7440	5.12	79.03	5.42	27.15	22.93	25362	93413
462	16	2.03	0.7992	6.00	92.61	5.54	27.70	23.296	26371	95203
General average	17.375	1.934	0.7614	5.11	78.87	5.385	26.925	21.859	24741	91873
2 years old:										
442	16	1.98	0.7795	5.65	87.21	5.83	29.15	23.059	26010	89535
445	14	1.93	0.7598	4.58	70.69	4.17	20.85	19.673	22263	106775
446	20	1.85	0.7283	4.36	67.29	4.97	24.85	20.336	23021	92640
General average	16.667	1.92	0.7559	4.863	75.058	4.99	24.95	21.107	23893	97962
3 years old:										
440	16	2.072	0.8157	5.11	78.87	4.56	22.80	19.044	21550	94516
441	16	2.24	2.8818	4.86	74.86	4.08	20.40	15.498	17543	85995
General average	16	2.156	0.8488	4.985	76.94	4.32	21.60	17.159	19422	89916
EWES.										
Lamb:										
481	.....	1.78	0.7007	4.82	74.39	7.77	38.85	24.340	27548	70910
Average	.....	1.78	0.7007	4.82	74.39	7.77	38.85	.....	.....	.....
1 year old:										
477	20	1.85	0.7283	5.09	78.56	3.90	19.50	23.796	26937	138139
478	22	1.918	0.7551	4.20	64.82	3.50	17.50	18.268	20678	118161
479	16	1.89	0.7440	4.22	65.134	4.78	23.90	18.907	21402	89550
480	20	1.93	0.7598	4.45	68.68	4.79	23.95	19.115	21640	92460
General average	19.50	1.891	0.7468	4.49	69.301	4.242	21.21	20.09	22738	107204
2 years old:										
463	16	2.07	0.8149	8.27	127.64	6.91	34.55	30.88	34950	101158
464	20	1.754	0.6905	4.85	74.875	5.19	25.95	25.223	28544	109997
465	20	1.611	0.6242	3.29	50.78	6.33	31.65	20.283	22896	91299
466	20	1.89	0.7440	5.83	89.98	6.24	31.20	26.113	29551	94716
467	22	1.789	0.7143	4.22	65.123	4.75	23.75	21.096	23881	100552
468	22	1.62	0.6377	5.15	79.49	6.38	31.90	31.498	35652	111761
469	20	1.838	0.7236	4.45	68.68	7.50	37.50	21.076	23858	63693
470	20	1.785	0.7027	5.02	77.48	5.74	28.70	15.544	17588	61283
471	16	2.095	0.8232	5.75	88.75	5.90	29.50	20.961	23711	80378
472	16	1.961	0.7720	6.54	100.94	6.67	33.35	27.211	30797	92344
473	16	2.11	0.8307	5.73	88.44	6.40	32.00	20.593	23304	72825
474	16	2.25	0.8858	6.75	104.18	5.46	27.30	21.333	24142	88430
General average	18.667	1.898	0.7472	5.48	84.581	6.1225	30.6125	24.339	27542	82003
3 years old:										
475	22	1.89	0.7440	5.49	84.74	7.48	37.40	24.59	27197	72701
476	14	1.98	0.7795	5.44	83.96	6.86	34.30	22.202	25120	73254
General average	18	1.94	0.7637	5.465	84.35	7.17	35.85	23.233	26292	73380

TABLE V.—*General results of all measurements*—Continued.

TEXAS WOOLS.

Catalogue number of samples.	Crimp per inch.	Fineness.		Strain.		Stretch.		$\frac{D^2 \times S}{D^3}$	$18109 \frac{S}{D^3} = R$	$E = \frac{R}{P}$
		Centimillimeters.	Thousandths of inch.	Grams.	Grains.	Millimeters.	Per cent.			
RAMS.										
2 years old:								*Grains.*		
616	14	1.891	0.7444	4.34	66.969	5.49	27.45	19.419	21070	[illegible]
617	14	1.82	0.7165	4.16	64.21	5.78	28.90	20.694	22738	78678
618	14	2.04	0.8031	6.45	99.55	4.73	23.65	24.798	26969	118284
619	14	1.93	0.7598	3.71	57.26	3.83	19.15	15.936	18041	94209
620	16	2.036	0.8015	5.79	89.366	4.75	23.75	22.349	22296	106500
621	14	1.93	0.7598	4.80	74.09	5.19	25.95	20.628	23349	89978
622	14	1.98	0.7795	4.78	73.778	4.39	21.95	19.508	22082	100390
623	20	1.90	0.7480	3.81	58.80	4.02	20.10	16.886	19116	93106
624	20	1.97	0.7755	5.27	81.34	6.72	33.60	21.727	24594	73197
625	14	1.84	0.7244	3.63	56.03	3.74	18.70	17.155	19422	103860
General average	15.40	1.933	0.7610	4.674	72.14	4.864	24.32	20.015	22650	93169
EWES.										
2 years old:										
605	16	1.781	0.7011	4.00	61.738	6.51	31.05	20.177	22840	73558
606	16	1.[illegible]	0.6645	4.26	65.751	6.405	32.025	23.921	27078	84524
607	20	1.896	0.7425	4.792	73.963	6.092	30.46	21.555	24402	80111
608	20	1.959	0.7712	4.72	72.85	5.92	29.60	19.678	22274	75250
609	14	1.837	0.7232	4.193	64.718	5.948	29.74	19.88	22500	75657
610	16	1.889	0.7436	5.13	79.179	6.94	34.70	23.003	26031	75019
611	20	1.758	0.6921	4.52	70.264	6.09	30.45	23.40	26484	86977
612	16	1.835	0.7224	4.03	62.201	5.45	27.25	19.149	21674	79538
613	20	1.836	0.7228	4.828	74.518	7.12	36.60	22.917	25351	69264
614	20	1.899	0.7476	4.76	73.468	5.93	29.65	21.118	23904	80629
615	16	1.885	0.7421	4.092	63.158	4.896	24.98	19.427	21991	88035
General average	17.636	1.75	0.6889	4.484	69.208	6.19	30.95	23.427	26518	87677

TABLE V.—*General results of all measurements—Averages for each section.*

Section, sex, and age.	Number of samples tested.	Number of crimps per inch.	Fineness.		Strain.		Stretch.		$\frac{D'^2 \times S}{D^2}$	$18109\frac{S}{D^2}=R$	$E=\frac{R}{F}$
			In centimillimeters.	In thousandths of inch.	In grams.	In grains.	In millimeters.	In per cent.			
VERMONT.											
Rams.									*Grams.*		
2 years old	4	15.50	2.06	0.8110	5.158	79.61	5.455	27.28	16.476	18768	68799
3 years old	10	16.80	2.122	0.8354	5.87	90.60	6.311	31.55	20.858	23604	74677
Ewes:											
2 years old	2	20.00	1.818	0.7157	5.126	79.12	6.513	32.565	24.815	28091	86249
3 years old	28	18.50	1.962	0.7724	5.17	79.80	7.126	35.63	21.488	24323	68264
NEW YORK.											
Rams:											
2 years old	13	20.00	1.955	0.7696	4.66	71.925	7.58	37.90	19.508	22082	58263
Ewes:											
2 years old	16	21.133	2.098	0.8259	5.059	78.08	7.717	38.585	18.386	20814	53936
PENNSYLVANIA.											
Rams:											
Lambs	[illegible]	18.67	1.979	0.7791	5.84	90.138	6.917	34.585	23.859	27005	78071
2 years old	6	21.00	1.48	0.5826	2.914	44.976	7.516	37.58	21.285	24096	64120
Wethers:											
2 years old	2	14.00	2.012	0.7921	4.936	76.19	8.049	40.245	19.509	22082	54861
Ewes:											
Lambs	[illegible]	18.00	1.83	0.7204	4.01	61.89	7.28	36.40	19.159	21192	59576
2 years old	7	16.86	1.91	0.7519	4.896	75.567	7.333	36.665	21.473	24300	66266
3 years old	11	20.46	1.559	0.6137	2.879	44.44	7.336	36.68	18.360	20780	56652
WISCONSIN.											
Rams:											
1 year old	8	19.25	1.844	0.7259	4.237	65.427	5.611	28.058	19.937	22568	80429
2 years old	17	19.765	2.219	0.8736	4.764	73.53	6.957	34.785	15.489	17520	50361
3 years old	5	18.80	1.774	0.6984	4.591	70.86	6.689	33.445	23.341	26416	78973
4 years old	2	21.00	2.112	0.8314	5.611	86.603	5.529	27.645	20.127	22783	82399
Ewes:											
1 year old	3	20.00	1.986	0.7818	4.244	65.504	6.171	30.855	17.215	19489	63155
2 years old	20	20.40	1.904	0.7496	4.65	71.77	7.034	35.170	20.518	23225	66036
3 to 5 years old	23	19.913	1.989	0.7830	5.172	79.83	7.242	36.21	20.917	23677	65390
Very old	2	18.00	2.019	0.7948	4.385	67.68	7.082	35.41	17.211	19478	55008
MINNESOTA.											
Rams:											
2 to 3 years old	20	17.16	2.079	0.8185	6.12	94.46	7.29	36.45	22.655	26233	70330
Ewes:											
2 to 3 years old	20	18.00	2.005	0.7893	6.11	94.305	6.578	32.89	24.318	27526	83690
ILLINOIS.											
Rams:											
1 year old	16	17.375	1.934	0.7614	5.11	78.87	5.385	26.925	21.859	24741	91873
2 years old	3	16.667	1.92	0.7559	4.863	75.058	4.99	24.95	21.107	23893	97962
3 years old	2	16.00	2.156	0.8488	4.985	76.94	4.32	21.60	17.159	19422	89916
Ewes:											
Lamb	1	.....	1.78	0.7007	4.82	74.39	7.77	38.85	24.340	27548	70910
1 year old	4	19.50	1.891	0.7468	4.49	69.301	4.242	21.21	20.090	22738	107204
2 years old	12	18.667	1.898	0.7472	5.48	84.581	6.123	30.613	24.339	27542	89908
3 years old	2	18.00	1.94	0.7637	5.465	84.35	7.17	35.85	23.233	26292	73339
TEXAS.											
Rams:											
2 years old	10	15.40	1.933	0.7610	4.674	72.14	4.864	24.32	20.015	22659	93169
Ewes:											
2 years old	11	17.636	1.75	0.6889	4.484	69.208	6.19	30.95	23.427	26518	87677
CALIFORNIA.											
Rams.											
2 years old	7	20.80	1.821	0.7169	4.528	69.887	7.34	36.70	21.847	24730	67384
Ewes:											
2 years old	31	22.1	1.897	0.7468	4.279	66.043	7.003	35.01	19.025	21538	61520
3 years old	4	22.7	1.982	0.7803	4.47	68.992	7.36	36.80	18.207	20610	56006

CONCLUSIONS:

The tables, as a rule, will explain themselves, and will show many relations to which we have at the present time been unable to give attention. The principal conclusions we have to offer, based upon the results here presented, are as follows:

(1) Different fibers in any given sample may vary in diameter throughout their length from 5 to 15 per cent.

(2) Fineness in American Merino wools may vary from 1 centimillimeter ($\frac{1}{2539}$ inch) to 4 centimillimeters ($\frac{1}{635}$ inch).

(3) This variation as represented in the extremes is not affected either by the sex of the animal or by the section. The average of the maxima will reach about 3.3 centimillimeters and the minima about 1.2 centimillimeters for the American Merino wools generally.

(4) The ultimate resistance of wool fibers of course depends greatly upon the diameter. But it appears that this will vary from a minimum of 1.5 grams, say 23 grains, to a maximum of about 15 grams, or 230 grains.

(5) The stretch the fibers will suffer previous to rupture also varies widely from about 5 per cent. of the length tested to as high as 60 per cent.

(6) There seems to be no special relation between the extremes for strain and stretch and the section in which the wool was grown or the sex and age of the animal producing it. It must in all cases be referred to the individual.

(7) With regard to the relation between the crimp of the fiber and the fineness, history repeats itself in this series, and while there is some connection between the two, and the averages of large numbers of samples show that the finer wools have, as a rule, the closer crimp, the indication is exceedingly unreliable from sample to sample.

(8) Age seems to have an influence upon the fineness of the fiber. After the age of one year the wool appears to grow coarser with increase of years.

(9) The ultimate stretch the fiber is capable of sustaining previous to rupture seems to increase with advance of age; but the data are not fully conclusive upon this point.

(10) Age has no perceptible influence upon either the ultimate resistance or the modulus of elasticity of the fiber.

(11) In the averages for fineness the results are somewhat higher, as a rule, for the rams than for the ewes, showing the rams' wool to be the coarser.

(12) If we arrange the sections represented with reference to average fineness for all sexes and ages, from highest to lowest, they stand in the following order:

Section.	Average fineness in centimillimeters.	Section.	Average fineness in centimillimeters.
Pennsylvania	1.6701	Illinois	1.926
Vermont	1.773	Wisconsin	1.9409
Texas	1.887	New York	2.034
California	1.916	Minnesota	2.042

13. If they be arranged with relation to the fineness for both rams and ewes two years old, they will stand, respectively—

RAMS.		EWES.	
Sections.	Average fineness in centimillimeters.	Sections.	Average fineness in centimillimeters.
Pennsylvania	1.48	Texas	1.75
California	1.821	Vermont	1.818
Illinois	1.92	California	1.897
Texas	1.933	Illinois	1.898
New York	1.955	Wisconsin	1.904
Vermont	2.06	Pennsylvania	1.91
Minnesota	2.079	Minnesota	2.005
Wisconsin	2.219	New York	2.098

14. If the sections be arranged with reference to the average fineness for both sexes two years old, they will stand in the following order, from finest to coarsest:

Sections.	Average fineness in centimillimeters.	Sections.	Average fineness in centimillimeters.
Pennsylvania	1.711	Vermont	1.979
Texas	1.837	New York	2.034
California	1.883	Minnesota	2.042
Illinois	1.902	Wisconsin	2.048

15. The influence of the density of the fleece upon all qualities is illustrated in the following table:

	Fineness.		Strain.		Stretch.		$\frac{D'^2 \times S}{D^2}$	$\frac{S}{18109 D^2}=R$	$E=\frac{R}{P}$
	Centimillimeters.	Thousandths of inch.	Grams.	Grains.	Millimeters.	Per cent.			
RAMS.									
Dense fleece:									
691	2.346	0.9236	5.03	77.219	4.98	24.90	14.964	16.939	67.999
693	1.956	0.7700	5.915	91.295	6.915	34.575	19.649	22.240	64.313
Average	2.151	0.8468	5.473	84.473	5.948	29.74	18.926	21.421	72.027
Loose fleece:									
692	1.916	0.7543	4.378	67.573	8.593	42.965	19.086	21.862	50.280
EWES.									
Dense fleece:									
686	1.96	0.7716	4.81	74.24	7.525	37.625	20.126	22.783	60.546
687	1.989	0.7830	4.53	69.918	8.193	40.965	17.593	19.909	48.593
688	2.117	0.8334	5.63	86.897	7.98	39.90	20.099	22.749	57.016
689	2.364	0.9307	5.345	82.498	7.31	36.55	15.303	17.317	47.404
690	2.163	0.8515	5.25	81.032	9.03	45.15	17.954	20.316	44.997
Average	2.119	0.8342	5.113	78.917	8.008	40.04	18.219	20.621	50.329
Loose fleece:									
679	1.876	0.7385	4.335	66.909	8.54	42.70	19.708	22.308	52.244
680	2.15	0.8464	4.59	70.844	7.253	36.265	15.884	17.564	48.426
681	2.036	0.8015	4.623	71.354	6.868	34.34	17.846	20.203	58.832
682	1.754	0.6905	3.575	55.175	8.075	40.375	18.593	21.040	52.106
683	1.983	0.7807	5.153	79.535	8.652	40.26	20.966	23.734	54.864
684	2.147	0.8452	5.21	80.414	7.427	37.135	18.083	20.463	55.097
	1.974	0.7771	4.581	70.705	7.469	37.345	18.81	21.289	56.999

This table shows: (*a*) That the finer fiber is found in loose fleece, both in the ram's wool and the ewe's wool (*b*) that there is practically little difference in the ultimate tenacity of the fiber in the two kinds of fleeces, the tend-; ency to greater strength being in favor of the loose fleece; (*c*) the modulus of elasticity, and hence the ultimate value of the wool, is greater in the loose fleece than in the open fleece for ewe's wool and *vice versa* for ram's wool; (*d*) the question of the influence of the density of the fleece upon the quality of the wool cannot be considered as fully settled by these results, but the tendency is strongly in favor of the open fleece.

16. Any special relation between the sex and the ultimate resistance seems doubtful. In Vermont, Minnesota, Illinois, and Texas the ewe's wool is stronger, while in New York, Pennsylvania, Wisconsin, and California the ram's wool takes precedence in this particular.

17. There appears to be a tendency to a higher modulus of elasticity, and consequently a higher ultimate value in the ram's wool than in the ewe's wool.

18. If we compare the moduli of elasticity of the wools of rams and ewes two years old for the several sections, we find them to range as follows, from highest to lowest, respectively:

RAMS.		EWES.	
Section.	Moduli of elasticity.	Section.	Moduli of elasticity.
Illinois	97, 962	Illinois	89, 998
Texas	93, 160	Texas	87, 677
Minnesota	76, 393	Vermont	86, 249
Vermont	68, 799	Minnesota	83, 690
California	67, 384	Pennsylvania	66, 226
Pennsylvania	64, 120	Wisconsin	66, 036
New York	58, 263	California	61, 520
Wisconsin	50, 361	New York	53, 936

19. If we compare the averages of the moduli of elasticity for both sexes two years old, we find the sections to stand in the following order:

Section.	Moduli of elasticity.	Section.	Moduli of elasticity.
Illinois	91, 657	Pennsylvania	65, 275
Texas	90, 292	California	62, 600
Minnesota	77, 010	Wisconsin	58, 834
Vermont	74, 782	New York	55, 875

20. If we compare the averages of the moduli of elasticity for all ages and sexes for the several sections, we find them to stand in the following order, from highest to lowest:

Section.	Moduli of elasticity.	Section.	Moduli of elasticity.
Illinois	91, 751	Pennsylvania	63, 705
Texas	90, 292	California	61, 972
Minnesota	77, 010	New York	55, 875
Vermont	76, 547	Wisconsin	48, 446

GERMAN MERINO WOOLS.

The classes of wools, of which we here present the results of the measurements, represent the two great classes of Merino wools of Germany, and are therefore of especial interest. The samples have been fully described in the catalogue, and need no further mention here.

The tables are arranged in the same way as the preceding, and will explain themselves.

TABLE VI (A).—*Measurements of fineness of Negretti wools from E. W. Perry, Chicago, Ill.*

Catalogue number of samples..	400.			401.			402.			403.			404.			405.		
Number of section	B′.	B″	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.50	2.00	1.625	1.25	1.50	1.875	1.50	1.50	1.50	2.00	2.00	1.375	1.00	1.50	1.375	1.50	2.25	2.00
	1.75	1.875	2.25	1.125	1.375	1.375	1.625	2.00	1.875	2.00	1.875	2.125	1.50	1.625	1.375	1.75	1.625	1.875
	1.75	1.875	1.875	1.125	1.875	1.50	1.625	1.875	1.875	1.50	2.375	2.125	1.125	1.625	1.50	1.50	1.625	1.875
	1.50	2.00	1.75	1.125	1.25	2.00	1.50	2.00	1.875	2.25	1.75	1.625	1.375	2.00	1.50	1.75	2.00	1.625
	1.625	1.825	3.00	1.50	1.875	1.50	1.625	1.625	1.50	1.50	2.75	1.875	1.125	1.50	1.875	1.875	1.875	1.50
	2.00	1.625	1.75	1.25	1.50	1.50	1.75	2.375	2.375	1.875	2.25	1.625	1.125	1.75	1.875	1.50	1.875	2.00
	1.25	1.875	2.25	1.25	1.375	2.375	1.375	1.50	1.75	2.50	1.75	2.25	1.25	1.75	1.50	1.75	2.50	1.625
	1.50	2.00	2.00	1.25	1.375	1.50	1.50	1.75	1.625	2.25	2.50	2.50	1.375	1.875	1.50	1.25	2.00	1.625
	1.50	1.625	2.50	1.625	1.625	2.00	1.50	2.125	1.50	1.50	2.375	2.375	1.00	1.50	1.50	2.00	1.625	1.50
	2.00	1.25	2.375	1.75	1.875	1.75	2.00	1.625	1.875	2.00	1.75	2.00	1.00	1.50	1.625	1.875	2.00	1.75
	2.00	1.625	1.375	1.625	1.625	1.50	1.25	1.75	1.75	1.75	1.625	1.875	1.00	1.875	1.875	1.50	2.00	1.625
	1.50	1.625	1.50	1.50	1.875	1.75	2.00	1.50	1.50	1.50	2.00	1.875	1.50	1.75	1.375	2.50	1.50	1.75
	2.00	1.625	1.875	1.375	1.50	2.50	1.625	1.875	1.625	1.875	1.875	2.125	1.25	1.625	1.25	1.50	2.00	1.50
	2.00	2.00	1.625	1.50	1.50	2.00	1.75	1.625	2.00	2.00	2.50	2.00	1.00	1.375	1.50	1.625	1.625	1.25
	1.375	2.00	1.75	1.625	1.50	2.375	2.25	2.00	1.875	1.75	2.875	2.125	1.25	1.375	1.50	2.00	1.50	1.375
	1.375	1.375	1.75	1.50	1.25	1.875	1.75	1.50	1.875	1.50	2.375	2.625	1.125	1.875	1.50	1.50	1.50	1.75
	1.875	1.875	2.50	1.50	1.625	2.00	2.00	1.50	1.50	1.75	2.00	2.125	1.00	1.75	2.00	2.00	1.875	1.50
	1.875	2.00	1.75	1.50	1.50	1.50	1.625	1.625	1.625	2.125	2.25	2.375	1.375	1.75	1.875	1.875	2.00	1.75
	2.25	1.625	1.875	1.50	1.50	1.625	1.25	1.625	1.50	1.875	1.875	2.00	1.375	1.50	1.50	2.125	1.375	1.75
	1.625	1.875	1.75	1.375	1.50	1.50	1.875	1.50	1.75	2.00	1.875	2.00	1.375	1.75	1.50	1.75	1.25	1.875
	1.75	2.125	1.875	1.75	1.375	1.875	1.50	1.375	2.00	1.625	1.75	2.125	1.875	1.875	1.25	1.75	1.625	1.50
	2.00	1.75	1.50	1.75	1.25	3.00	1.25	2.00	1.875	1.75	2.00	2.00	1.125	1.875	1.625	2.375	1.875	1.50
	1.625	2.00	1.875	1.375	1.875	1.75	1.50	1.50	2.375	1.75	2.25	2.50	1.375	1.75	1.50	2.00	1.875	2.125
	1.375	1.875	1.875	1.50	1.50	2.50	1.25	1.625	1.75	1.75	1.75	2.75	1.125	1.875	1.625	1.50	2.125	1.875
	1.50	2.00	2.00	1.25	1.25	1.50	1.50	1.75	1.75	2.00	1.75	1.50	1.125	1.75	1.50	1.625	2.00	1.50
	1.875	1.75	2.00	1.75	1.375	2.00	1.625	1.50	1.875	2.00	2.75	2.25	1.125	1.50	1.25	1.50	1.50	1.875
	1.75	1.625	2.125	1.875	1.50	2.75	1.75	1.625	1 50	1.875	1.75	1.875	1.00	1.875	1.875	1.625	1.625	1.875
	1.75	1.875	2.00	1.375	1.375	1.875	1.75	1.625	2.00	2.125	2.20	2.50	1.50	1.50	1.375	1.75	2.00	1.50
	1.375	1.875	2.25	1.25	1.50	2.00	1.25	1.50	2.125	1.75	2.00	2.00	1.25	1.25	1.50	1.625	1.50	1.50
	1.625	1.625	1.875	1.50	1.75	1.875	1.625	1.50	2.00	2.00	1.875	2.50	1.50	1.875	1.875	2.00	1.50	1.75
	2.50	1.50	2.00	1.50	1.875	2.00	1.75	1.625	1.875	1.50	2.25	2.25	1.25	1.875	1.75	1.25	1.50	1.50
	1.50	2.125	1.625	1.50	1.50	1.75	1.75	1.25	1.875	2.00	2.875	2.625	1.25	1.50	1.75	1.75	1.00	1.50
	1.50	2.00	1.75	1.375	1.50	1.75	1.75	1.875	1.875	2.00	3.125	2.25	1.25	1.50	1.625	2.125	2.00	1.875
	1.625	2.375	1.75	1.75	1.375	1.25	1.50	1.50	1.625	1.875	1.50	1.875	1.25	1.625	1.50	1.75	2.375	2.00
	1.50	1.75	2.125	1.625	1.75	1.50	1.50	1.50	1.875	1.625	1.75	1.50	1.25	2.00	1.625	2.00	1.50	1.625
	1.75	2.25	1.75	1.50	1.75	2.25	1.75	1.50	1.75	1.625	1.875	2.25	1.25	1.875	1.875	1.50	1.50	1.75
	1.625	2.125	2.25	2.00	1.25	1.875	1.50	1.25	1.50	2.00	1.875	2.375	1.50	1.50	1.75	1.625	1.25	1.875
	1.75	2.375	2.25	1.625	1.875	1.75	1.375	1.75	1.50	1.625	2.00	2.00	1.625	1.50	1.50	2.50	1.125	1.50
	1.50	7.50	1.375	1.125	2.125	1.125	1.75	1.50	1.875	2.125	1.75	2.00	1.25	1.375	1.75	2.00	2.75	1.50
	1.75	2.375	1.50	1.25	1.50	2.05	2.125	1.50	1.375	1.375	3.00	2.00	1.125	1.625	1.625	1.50	1.875	1.50
	1.50	2.875	2.50	1.50	1.25	1.75	1.50	1.625	1.875	1.50	2.75	2.125	1.50	1.75	1.50	1.50	1.50	1.375
	1.75	2.125	2.50	1.625	1.50	2.00	1.50	2.125	1.50	1.875	2.50	1.875	1.125	1.625	1.875	1.75	1.50	1.625
	2.25	1.75	2.00	1.75	1.50	1.75	1.375	1.50	1.875	1.875	2.00	2.625	1.25	1.875	1.50	1.50	2.00	1.875
	1.50	1.75	1.875	2.00	1.625	1.50	1.50	1.375	1.375	1.875	1.50	2.00	1.50	1.75	1.375	2.00	1.875	1.625
	2.00	2.00	1.75	1.50	1.25	2.00	2.125	1.75	1.875	1.50	2.625	2.00	1.25	1.50	1.25	1.875	1.875	2.50
	2.25	1.50	2.00	1.50	1.625	1.875	2.00	1.75	1.25	1.75	2.625	1.875	1.375	1.375	1.75	1.375	1.625	2.00
	1.75	1.75	2.25	1.25	1.50	1.50	1.625	1.875	1.875	2.00	1.875	2.00	1.25	1.625	1.50	1.625	1.875	2.00
	1.50	1.375	2.00	1.375	2.25	1.875	2.25	2.00	1.375	2.00	2.125	1.875	1.375	1.625	1.50	1.875	1.75	1.875
	1.375	1.625	2.25	1.875	1.375	1.875	1.50	1.625	1.75	1.875	2.625	1.25	1.25	1.875	2.00	2.00	1.50	1.875
	1.50	1.75	1.25	1.25	1.50	1.875	1.50	2.00	1.375	1.875	2.625	1.875	1.125	1.875	1.375	2.125	1.25	1.50
Totals	85.00	93.00	97.25	75.25	77.625	92.625	82.00	83.75	87.25	92.00	108.00	103.125	62.125	83.125	79.25	88.50	87.25	85.375

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.50	0.9842	B′	2.00	0.7874	B′	2.25	0.8858	B′	2.50	0.9842	B′	1.875	0.7380	B′	2.50	0.9842
	B″	2.875	1.1318	B″	2.25	0.8858	B″	2.375	0.9350	B″	3.125	1.2303	B″	2.00	0.7874	B″	2.75	1.0826
	B‴	3.00	1.1811	B‴	3.00	1.1811	B‴	2.375	0.9350	B‴	2.625	1.0334	B‴	2.00	0.7874	B‴	2.50	0.9842
Highest	.....	3.00	1.1811	.....	3.00	1.1811	.....	2.375	0.9350	.....	3.125	1.2303	.....	2.00	0.7874	.....	2.75	1.0826
Minimum measurements.	B′	1.25	0.4921	B′	1.125	0.4429	B′	1.25	0.4921	B′	1.375	0.5413	B′	1.00	0.3937	B′	1.25	0.4921
	B″	1.25	0.4921	B″	1.25	0.4921	B″	1.25	0.4921	B″	1.50	0.5905	B″	1.25	0.4921	B″	1.00	0.3937
	B‴	1.25	0.4921	B‴	1.125	0.4429	B‴	1.25	0.4921	B‴	1.25	0.4921	B‴	1.25	0.4921	B‴	1.25	0.4921
Lowest	.....	1.25	0.4921	.....	1.125	0.4429	.....	1.25	0.4921	.....	1.25	0.4921	.....	1.00	0.3937	.....	1.00	0.3937
Average measurements..	B′	1.70	0.6692	B′	1.505	0.5925	B′	1.64	0.6456	B′	1.84	0.7244	B′	1.243	0.4893	B′	1.77	0.6968
	B″	1.86	0.7322	B″	1.553	0.6114	B″	1.68	0.6614	B″	2.16	0.8503	B″	1.663	0.6547	B″	1.745	0.6870
	B‴	1.945	0.7657	B‴	1.853	0.7295	B‴	1.75	0.6889	B‴	2.063	0.8122	B‴	1.585	0.6240	B‴	1.708	0.6724
Average	.....	1.835	0.7224	.....	1.637	0.6444	.....	1.69	0.6653	.....	2.02	0.7952	.....	1.49	0.5866	.....	1.74	0.6850
Measurements above average..	.....	52		.....	40		.....	46		.....	50		.....	93		.....	79	
Measurements below average..	.....	98		.....	110		.....	104		.....	100		.....	57		.....	71	

TABLE VI (A.)—*Measurements of fineness of Negretti wools from E. W. Perry, Chicago, Ill.*—Continued.

Catalogue number of samples..	406.			407.			408.			409.			410.			411.		
Number of section.....	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.
Actual measurement in centimillimeters.	1.625	1.50	1.50	1.875	2.00	2.00	1.50	2.50	2.00	2.00	1.50	2.125	1.50	2.00	2.00	1.50	1.75	1.75
	2.00	2.125	1.50	1.125	2.00	1.50	2.00	1.75	1.50	1.625	1.25	1.625	1.50	2.00	2.25	1.25	2.375	1.50
	1.625	1.625	1.625	1.125	1.625	2.00	1.875	2.50	2.00	1.375	1.25	1.625	1.75	2.00	1.50	1.875	1.875	1.50
	1.625	1.50	1.75	1.00	2.00	2.25	1.50	2.50	2.50	2.00	2.00	1.875	2.00	2.00	2.00	1.25	1.75	1.875
	1.125	1.625	1.50	1.875	1.75	2.50	1.875	2.50	2.00	1.50	1.875	1.50	2.00	2.50	2.00	1.625	2.25	1.875
	2.125	1.75	1.625	1.875	2.00	2.00	1.50	1.50	2.00	1.375	1.375	1.25	1.50	1.75	1.75	1.625	1.625	2.00
	1.50	1.625	1.50	1.50	2.00	2.00	1.875	2.00	2.00	1.50	1.00	1.50	1.50	2.00	1.75	1.875	2.00	1.75
	1.875	1.625	1.625	1.375	1.75	2.50	1.625	2.25	2.50	1.25	1.375	2.00	1.50	1.75	2.00	1.875	1.50	1.75
	1.625	1.75	1.50	1.625	1.75	2.25	1.25	2.00	2.00	1.75	1.75	1.875	1.50	1.75	2.10	1.50	2.125	1.875
	2.00	2.00	1.50	1.00	2.00	2.25	1.875	2.00	1.75	1.125	2.00	1.50	1.50	1.75	2.00	1.375	2.00	2.00
	1.50	1.75	1.875	1.375	2.00	2.50	1.50	2.25	1.75	1.50	1.75	1.50	1.50	1.75	2.25	1.50	2.00	2.00
	1.50	2.00	1.75	1.25	1.625	2.00	1.625	2.00	2.00	1.875	1.50	1.625	1.50	2.00	2.00	1.75	2.25	1.50
	1.50	1.375	1.50	1.50	1.75	1.50	1.50	2.25	2.00	1.75	1.00	1.50	1.50	2.50	2.25	1.25	1.50	2.00
	1.375	1.50	1.50	1.50	2.00	1.625	2.50	2.00	2.00	2.125	2.00	1.25	1.50	2.00	2.00	1.125	2.125	2.00
	1.625	1.625	1.50	1.25	1.625	2.00	1.875	2.00	2.50	1.50	1.875	1.25	1.50	2.00	1.50	1.625	1.875	2.375
	2.00	1.75	1.50	1.25	2.00	2.50	2.00	2.50	2.00	1.50	2.375	1.50	1.25	2.50	2.00	2.00	2.25	2.00
	1.125	1.625	1.625	1.50	1.625	2.00	1.00	2.00	1.75	1.50	2.25	1.50	1.50	2.50	2.50	1.75	1.625	1.50
	1.625	1.875	1.50	1.875	2.00	2.00	1.50	2.00	1.50	1.875	1.875	1.625	1.50	2.00	1.50	1.25	1.50	1.875
	2.00	1.625	2.125	1.00	1.75	2.50	1.75	2.00	2.50	1.25	1.50	1.875	1.50	1.50	2.50	1.50	2.25	2.125
	1.50	1.50	1.625	1.375	2.00	1.75	1.50	2.00	2.50	1.125	1.875	2.00	1.75	1.75	2.50	1.50	1.875	2.00
	1.625	1.50	2.375	1.00	2.00	2.00	1.50	2.00	2.00	1.625	2.125	1.75	1.50	2.00	1.75	1.00	1.50	1.50
	1.625	1.50	1.875	1.50	1.75	2.00	1.50	2.00	2.50	1.50	1.50	1.625	2.00	2.00	1.75	1.00	1.75	1.75
	1.875	1.75	1.875	1.00	1.75	2.25	1.625	2.00	2.00	1.50	2.00	1.00	2.00	2.375	1.75	1.125	1.875	1.75
	1.875	1.625	1.75	1.875	2.00	2.00	1.875	2.00	2.50	1.25	1.75	1.375	2.00	1.875	2.50	1.50	1.625	1.625
	1.50	1.125	2.125	1.50	1.50	2.00	1.875	2.50	2.50	1.50	1.50	1.50	2.25	2.00	1.75	1.125	1.625	1.50
	2.00	1.75	2.00	1.375	2.50	2.50	1.875	3.00	2.00	2.00	1.00	1.25	2.00	2.00	1.50	1.50	1.50	1.625
	1.50	2.375	2.25	1.25	2.00	2.00	1.875	2.25	1.75	1.50	2.25	1.00	1.75	1.75	1.50	1.50	1.625	1.875
	1.625	1.50	2.25	1.375	1.75	1.75	1.875	2.00	2.00	1.50	1.625	1.375	2.00	1.75	1.875	1.50	1.625	1.625
	1.00	1.625	2.125	1.375	1.75	1.75	2.00	2.00	2.00	1.625	2.125	2.25	2.00	1.75	3.00	1.375	1.625	1.50
	1.50	1.625	1.75	1.00	2.50	1.75	1.25	1.75	1.75	1.50	1.625	1.625	1.50	2.00	2.00	1.625	2.125	1.50
	2.00	2.00	2.00	1.375	2.00	1.75	2.125	1.75	2.00	1.50	2.125	2.00	1.75	2.00	2.50	2.00	1.625	1.50
	1.75	2.125	2.125	1.25	2.00	2.00	2.00	2.25	2.00	1.75	1.50	1.125	2.00	1.75	2.50	1.75	1.75	1.75
	1.25	1.625	1.50	1.375	2.25	1.50	1.50	2.25	2.50	1.50	1.875	1.25	1.25	1.75	2.00	1.50	1.50	1.75
	1.50	1.875	1.75	1.00	1.75	2.00	2.00	2.00	2.00	1.875	1.625	1.375	2.00	2.00	1.25	1.50	1.625	2.00
	2.00	1.625	1.875	1.50	2.25	2.00	1.75	1.75	2.00	1.50	2.125	1.75	1.50	2.00	2.50	1.75	2.125	2.00
	1.75	1.875	1.75	1.875	2.00	1.75	1.50	2.00	1.75	1.875	2.125	1.50	1.50	1.75	2.50	1.875	1.75	1.50
	2.00	1.75	2.25	1.75	2.00	2.00	1.75	2.25	1.75	1.50	2.00	1.50	2.00	2.00	2.00	1.625	2.00	1.50
	1.50	1.625	1.50	1.875	1.75	2.00	1.875	2.00	1.75	1.50	2.225	2.00	2.00	2.00	2.25	2.00	1.25	1.50
	1.625	1.625	1.875	1.125	2.00	1.75	1.25	1.75	2.00	1.625	2.225	2.125	2.00	2.00	2.625	1.75	1.625	2.00
	1.50	1.875	2.25	1.00	1.50	2.00	1.875	2.00	2.00	1.50	1.625	1.50	1.50	2.00	2.00	1.75	1.25	1.50
	1.50	1.875	1.50	1.875	2.00	1.75	1.50	2.00	2.25	1.375	2.00	1.50	1.50	2.00	1.875	1.25	1.50	1.75
	1.875	1.375	2.00	1.00	1.50	2.25	1.50	2.25	1.75	2.00	2.00	1.25	2.00	1.50	2.375	1.25	1.50	2.00
	1.50	1.625	1.50	1.00	1.625	1.50	1.75	2.00	2.00	2.00	1.75	1.50	2.00	1.75	2.50	1.375	1.50	1.50
	1.375	1.50	1.50	1.375	1.75	2.50	1.75	2.25	2.00	1.75	1.875	1.75	1.50	2.25	2.00	1.75	1.875	1.625
	1.50	1.50	2.125	1.25	2.00	2.25	1.875	2.00	2.50	1.50	2.00	2.00	1.50	2.75	2.00	1.75	1.625	1.75
	2.00	2.00	1.25	1.50	1.50	2.25	2.125	2.00	2.25	1.25	2.00	2.00	2.00	2.125	2.00	1.25	1.50	2.125
	1.125	1.50	1.75	1.50	1.75	2.25	2.00	3.00	2.00	2.00	1.50	1.625	1.75	2.00	2.00	1.625	1.75	2.125
	1.375	1.25	1.875	1.25	2.00	2.75	1.875	2.75	2.00	2.125	1.875	1.375	1.25	1.875	2.50	1.875	1.625	1.875
	1.50	1.75	2.00	1.125	2.00	2.00	2.00	2.00	2.00	1.75	1.75	1.75	1.125	1.875	2.00	1.55	1.75	1.875
Totals.....	79.75	82.75	88.375	66.375	93.75	104.50	83.875	108.75	102.25	79.875	89.125	80.625	83.875	90.750	104.50	76.75	87.375	88.25

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B'	2.125	0.8366	B'	1.875	0.7380	B'	2.125	0.8366	B'	2.125	0.8366	B'	2.25	0.8858	B'	2.00	0.7874
	B''	2.375	0.9350	B''	2.50	0.9842	B''	3.00	1.1811	B''	2.375	0.9350	B''	2.75	1.0826	B''	2.375	0.9350
	B'''	2.375	0.9350	B'''	3.00	1.1811	B'''	2.50	0.9442	B'''	2.25	0.8858	B'''	3.25	1.2795	B'''	2.125	0.8366
Highest	.....	2.375	0.9350	.....	3.00	1.1811	.....	3.00	1.1811	.....	2.375	0.9350	.....	3.25	1.2795	.....	2.375	0.9350
Minimum measurements.	B'	1.00	0.3937	B'	0.875	0.3445	B'	1.00	0.3937	B'	1.125	0.4429	B'	1.125	0.4429	B'	1.00	0.3937
	B''	1.25	0.4921	B''	1.50	0.5905	B''	1.50	0.5905	B''	1.00	0.3937	B''	1.50	0.5905	B''	1.125	0.4429
	B'''	1.25	0.4921	B'''	1.50	0.5905	B'''	1.50	0.5905	B'''	1.00	0.3937	B'''	1.25	0.4921	B'''	1.375	0.5413
Lowest	.....	1.00	0.3937	.....	0.875	0.3445	.....	1.00	0.3937	.....	1.00	0.3937	.....	1.125	0.4429	.....	1.00	0.3937
Average measurements..	B'	1.595	0.6279	B'	1.326	0.5220	B'	1.678	0.6606	B'	1.598	0.6291	B'	1.678	0.6606	B'	1.595	0.6043
	B''	1.655	0.6515	B''	1.875	0.7380	B''	2.175	0.8562	B''	1.783	0.7019	B''	1.935	0.7618	B''	1.748	0.6850
	B'''	1.768	0.6960	B'''	2.09	0.8228	B'''	2.045	0.8051	B'''	1.63	0.6417	B'''	2.09	0.8228	B'''	1.765	0.6948
Average	.....	1.67	0.6574	.....	1.73	0.6811	.....	1.97	0.7755	.....	1.67	0.6574	.....	1.90	0.7480	.....	1.68	0.6614
Measurements above average..	.....	58		.....	70		.....	91		.....	64		.....	84		.....	71	
Measurements below average..	.....	92		.....	80		.....	59		.....	86		.....	66		.....	79	

TABLE VI (A).—*Measurements of fineness of Negretti wools from E. W. Perry, Chicago, Ill.*—Continued.

Catalogue number of samples	412.			413.			414.			415.			416.			417.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.75	1.625	1.625	1.50	1.625	2.00	1.625	1.375	1.625	1.75	2.00	2.00	1.50	2.00	1.625	1.375	1.625	2.00
	1.75	1.75	2.00	1.50	1.625	1.625	1.125	1.375	1.75	1.50	1.75	1.125	1.50	1.875	1.875	1.50	1.50	2.25
	2.00	1.50	1.875	1.50	1.50	1.875	0.875	1.50	2.00	1.50	1.625	1.50	1.50	1.50	1.625	1.375	1.375	1.50
	1.50	1.75	1.875	1.50	1.75	1.75	1.375	1.25	2.00	1.75	1.625	1.625	1.75	1.75	1.75	1.25	1.75	2.00
	1.875	1.875	2.00	1.375	1.50	1.50	1.375	1.625	2.00	1.125	1.625	1.50	1.00	1.375	2.00	1.50	1.375	1.625
	1.625	1.625	2.00	1.00	1.50	2.125	1.50	1.25	2.00	1.75	1.75	1.50	1.25	1.75	2.00	1.50	1.625	1.75
	1.50	2.00	2.25	1.625	1.75	1.875	1.50	1.375	1.375	1.75	2.00	1.75	1.25	1.75	1.75	2.00	1.50	1.625
	1.75	1.50	1.75	1.625	1.375	1.75	1.50	1.75	1.50	1.625	1.50	1.75	1.25	2.00	1.50	1.00	1.625	2.125
	2.00	1.875	1.75	2.00	1.50	1.875	1.125	1.75	1.625	1.50	1.625	2.00	1.00	1.75	1.50	1.625	1.875	2.00
	2.50	2.00	2.00	1.75	1.50	1.75	1.375	1.625	1.25	1.50	1.375	1.625	1.375	1.625	2.00	1.50	1.50	2.00
	2.125	1.875	1.75	1.50	1.50	1.625	1.25	1.875	1.625	1.50	2.00	1.125	1.25	2.125	1.50	1.375	1.75	2.00
	1.50	1.625	1.625	2.25	1.75	2.00	1.50	1.375	2.00	1.50	1.50	1.75	1.25	1.625	2.25	1.50	1.50	1.50
	1.50	2.00	1.875	1.875	1.50	2.00	1.25	2.00	1.625	1.625	1.75	1.875	1.00	1.375	1.50	1.50	1.50	1.625
	1.75	1.625	1.75	1.50	1.75	1.625	1.25	1.50	1.25	1.50	1.625	1.875	1.375	1.75	2.125	1.50	1.75	2.00
	1.50	3.25	2.625	1.50	1.375	1.625	1.375	1.25	1.50	1.75	1.75	1.75	1.25	1.625	1.75	1.75	1.625	1.50
	1.50	1.75	1.50	2.25	1.50	2.125	1.125	1.125	1.50	1.625	2.00	2.25	1.375	1.875	2.00	1.50	1.50	1.75
	1.875	2.00	1.75	1.625	1.50	1.875	1.25	1.50	1.625	1.875	1.625	2.75	1.50	1.875	1.875	1.50	1.625	2.25
	1.50	2.00	2.00	1.625	1.75	1.875	1.25	1.00	1.25	1.625	1.625	1.125	1.50	1.625	2.00	1.50	1.50	1.50
	1.50	1.50	1.875	1.625	1.625	2.00	1.50	1.375	2.25	1.625	1.625	1.875	1.125	1.875	2.00	2.00	1.75	1.50
	1.50	2.00	1.625	2.00	1.50	2.00	1.25	2.375	1.75	1.50	1.25	1.75	1.625	1.875	1.625	1.625	1.00	1.50
	1.625	1.625	2.00	1.625	1.625	2.00	1.375	2.00	1.50	1.25	1.375	1.625	1.25	1.75	2.00	2.00	1.875	1.75
	1.75	2.00	1.50	2.00	1.375	2.00	1.125	2.125	2.125	1.625	1.375	1.875	1.125	1.625	2.50	1.50	1.75	1.50
	1.50	2.00	2.00	1.50	1.625	2.50	1.50	1.875	2.00	1.625	1.50	2.00	1.00	1.625	2.00	1.50	1.875	1.50
	1.625	1.50	1.50	2.125	1.50	2.00	1.25	1.50	1.50	1.625	2.00	2.375	1.875	1.50	2.125	1.625	1.75	1.75
	1.625	1.875	2.00	2.125	1.625	1.625	1.25	1.75	2.00	2.00	1.50	2.00	1.50	2.00	1.50	1.50	1.625	1.625
	2.00	1.75	2.375	2.00	1.75	1.75	1.75	1.375	1.375	1.875	1.75	2.125	1.25	1.875	1.75	1.50	1.50	1.375
	1.50	2.00	2.00	2.00	1.50	1.625	1.50	1.25	1.875	1.00	1.50	1.875	1.125	1.875	1.50	1.625	1.625	1.375
	1.625	1.50	2.00	2.00	1.75	1.875	1.00	1.375	1.50	1.375	1.875	2.125	1.625	2.00	1.875	1.50	1.625	1.50
	1.75	2.00	1.875	1.125	2.00	1.75	1.125	1.50	1.875	1.50	1.50	1.875	1.75	1.875	2.50	1.50	1.75	1.50
	1.75	2.00	2.25	1.50	1.875	1.625	1.25	1.625	1.625	1.375	2.25	1.625	1.125	1.625	1.625	1.50	1.50	1.75
	1.50	1.625	2.50	1.50	2.125	2.00	1.375	1.125	1.375	1.50	2.00	1.75	1.125	1.375	1.75	1.625	1.75	1.50
	1.75	2.75	2.00	1.25	1.625	1.875	1.50	1.375	1.625	1.625	1.50	1.625	2.00	1.50	1.625	1.50	1.875	1.75
	2.00	1.875	2.00	2.00	1.50	2.375	1.125	1.25	2.00	1.50	2.00	2.375	1.00	2.00	1.75	1.375	1.50	1.875
	2.00	1.50	1.50	1.50	2.00	2.25	1.50	1.875	2.00	1.625	1.50	2.125	1.125	1.875	1.50	1.50	1.375	1.50
	1.875	2.00	1.875	1.875	1.50	1.875	1.625	1.50	1.50	1.375	1.875	2.00	1.25	1.125	1.625	1.50	1.75	1.75
	1.75	2.125	2.25	1.50	1.625	2.50	1.25	2.125	2.00	1.625	1.625	1.75	1.25	2.00	1.875	1.00	1.00	2.00
	1.875	1.625	2.00	2.375	1.875	2.00	1.875	1.125	1.625	1.50	1.50	1.50	1.50	1.50	1.625	1.50	1.50	1.50
	1.875	1.75	1.75	1.625	2.00	1.50	1.50	1.625	1.75	1.375	2.125	1.625	1.50	1.625	1.875	1.25	1.625	1.625
	1.625	1.75	1.50	1.625	1.50	2.125	1.50	1.375	1.50	1.50	1.50	1.625	1.00	2.00	1.875	1.25	1.625	1.50
	2.00	2.125	1.50	1.50	1.50	2.125	1.50	1.50	1.875	1.50	2.375	1.875	1.50	1.50	1.875	1.50	1.50	1.625
	1.50	1.875	1.625	2.00	1.625	2.25	1.25	1.50	1.50	1.50	1.625	1.75	1.125	1.875	1.625	1.75	1.50	1.50
	2.00	1.50	1.375	1.375	1.625	1.75	1.25	1.50	1.625	1.625	1.50	1.625	1.625	1.625	1.50	1.25	1.50	1.50
	2.25	1.50	1.50	2.125	2.00	2.00	1.375	1.50	1.875	1.625	1.875	2.00	2.125	2.00	2.00	1.375	1.75	1.75
	1.50	1.875	2.00	1.50	1.75	1.75	1.50	1.125	1.50	1.50	1.50	2.00	1.50	1.50	2.00	1.50	2.00	1.75
	1.875	1.75	2.00	1.50	1.25	1.75	1.50	1.50	1.25	1.375	1.875	1.25	1.00	2.00	2.375	1.25	1.50	1.625
	1.50	1.75	2.00	1.50	1.75	1.875	1.00	2.00	2.75	1.375	1.50	1.875	1.50	1.125	1.625	2.00	1.50	1.75
	1.75	1.75	2.00	1.75	1.75	1.875	1.375	1.50	2.25	1.625	1.625	1.50	1.25	1.50	1.50	1.00	1.75	1.50
	1.625	1.875	2.00	2.00	1.625	1.75	1.625	1.75	1.75	1.50	1.50	2.00	1.25	2.00	1.50	1.75	1.50	1.375
	1.875	2.00	1.625	1.50	1.50	2.00	1.75	1.625	1.75	1.50	1.875	2.50	1.50	1.625	2.00	1.50	1.50	1.50
	1.625	1.75	1.875	1.50	2.00	2.125	1.125	1.25	1.625	1.50	1.875	1.50	1.25	1.75	2.00	1.75	1.875	1.625
Totals	87.00	92.125	93.875	84.625	82.125	95.375	68.00	76.75	86.00	77.375	84.50	90.25	67.625	86.25	91.125	75.25	80.00	84.125

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Maximum measurements.	B′	2.50	0.9442	B′	2.375	0.9350	B′	1.875	0.7380	B′	2.00	0.7874	B′	2.125	0.8366	B′	2.00	0.7874
	B″	3.25	1.2795	B″	2.125	0.8366	B″	2.375	0.9350	B″	2.375	0.9350	B″	2.125	0.8366	B″	2.00	0.7874
	B‴	2.625	1.0334	B‴	2.50	0.9442	B‴	2.75	1.0826	B‴	2.75	1.0826	B‴	2.50	0.9842	B‴	2.25	0.8858
Highest		3.25	1.2795		2.50	0.9842		2.75	1.0826		2.75	1.0826		2.50	0.9842		2.50	0.9842
Minimum measurements.	B′	1.50	0.5905	B′	1.00	0.3937	B′	0.875	0.3445	B′	1.00	0.3937	B′	1.00	0.3937	B′	1.00	0.3937
	B″	1.50	0.5905	B″	1.25	0.4921	B″	1.00	0.3937	B″	1.25	0.4921	B″	1.125	0.4429	B″	1.00	0.3937
	B‴	1.375	0.5413	B‴	1.50	0.5905	B‴	1.25	0.4921	B‴	1.125	0.4429	B‴	1.50	0.5905	B‴	1.375	0.5413
Lowest		1.375	0.5413		1.00	0.3937		0.875	0.3445		1.00	0.3937		1.00	0.3937		1.00	0.3937
Average measurements.	B′	1.740	0.6850	B′	1.693	0.6665	B′	1.36	0.5354	B′	1.548	0.6094	B′	1.352	0.5322	B′	1.505	0.5925
	B″	1.843	0.7255	B″	1.643	0.6468	B″	1.535	0.6043	B″	1.69	0.6673	B″	1.725	0.6791	B″	1.60	0.6299
	B‴	1.878	0.7393	B‴	1.908	0.7511	B‴	1.72	0.6771	B‴	1.805	0.7106	B‴	1.825	0.7185	B‴	1.682	0.6621
Average		1.82	0.7165		1.74	0.6850		1.54	0.6062		1.68	0.6614		1.634	0.6433		1.596	0.6283
Measurements above average		51			78			57			60			60			[illegible]	
Measurements below average		90			72			93			[illegible]			90			81	

TABLE VI (A).—*Measurements of fineness of Negretti wools from E. W. Perry, Chicago, Ill.*—Continued.

Catalogue number of samples	418.			419.			420.			421.			422.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.75	1.75	1.75	1.625	2.00	1.625	2.50	1.75	1.50	1.25	1.50	1.875	1.75	1.75	2.00
	1.75	1.625	1.75	1.50	2.00	2.125	1.50	2.00	1.625	1.25	1.50	2.50	2.00	2.00	2.25
	1.75	1.875	1.375	1.50	2.00	2.375	2.00	1.50	1.50	1.375	1.50	1.50	2.00	1.875	2.00
	2.375	1.75	1.25	1.50	2.00	1.50	1.50	1.625	1.375	1.625	1.50	1.50	2.00	1.625	2.125
	1.625	1.625	1.50	1.375	2.50	2.00	1.875	1.625	1.75	1.25	1.50	1.625	2.25	1.75	2.00
	2.125	1.25	1.625	1.625	2.00	2.25	1.50	1.375	1.875	1.25	1.250	1.75	2.00	1.875	1.50
	1.75	1.75	1.875	1.75	2.50	1.875	2.125	2.25	1.625	1.50	1.125	1.75	1.50	1.625	1.875
	2.00	1.75	1.875	1.50	1.75	1.625	1.875	2.75	1.75	1.375	1.125	1.875	1.625	1.875	2.00
	1.50	1.625	1.75	1.75	2.00	1.50	1.875	1.50	2.00	1.25	1.25	1.50	1.50	1.50	1.875
	2.00	1.75	2.25	2.00	2.25	1.75	2.00	1.875	1.50	1.25	1.50	1.75	1.75	2.00	2.00
	2.00	1.75	1.50	2.25	1.50	2.50	1.875	1.375	1.50	1.50	1.50	1.875	1.875	2.00	2.50
	1.75	1.25	2.125	1.50	1.875	1.50	1.50	1.50	2.125	1.50	1.125	1.625	1.75	1.50	2.00
	1.50	1.875	2.00	1.125	1.875	2.375	1.50	1.75	1.50	1.50	1.375	2.50	2.50	2.125	1.625
	1.625	2.125	2.25	1.75	2.125	1.75	1.625	1.50	1.875	1.75	1.50	2.50	1.625	2.00	2.125
	1.50	1.75	1.875	2.00	2.25	1.50	1.625	2.00	1.50	1.75	1.00	1.75	1.50	2.00	2.375
	2.125	1.50	2.125	2.375	1.875	2.00	1.625	2.625	1.50	1.25	2.00	2.00	1.75	1.75	1.50
	1.50	1.50	1.50	1.875	2.00	1.625	1.75	2.125	2.375	1.50	1.25	2.00	1.75	1.375	1.625
	1.375	1.50	2.00	1.375	2.00	2.25	2.00	1.625	1.75	1.375	1.50	2.375	2.50	2.00	1.875
	1.625	1.00	1.625	1.50	2.125	1.875	1.75	1.875	2.25	1.25	1.375	1.50	1.875	1.625	2.00
	1.25	1.375	1.25	1.625	1.75	2.50	2.50	1.75	1.625	1.25	1.50	1.75	2.125	1.75	1.875
	2.00	1.625	2.125	1.50	2.375	1.875	1.50	1.625	1.625	1.875	1.50	1.25	2.625	1.625	1.625
	1.625	1.50	1.50	1.625	2.00	2.00	2.375	2.25	1.50	1.625	1.50	1.625	2.00	1.875	2.125
	1.50	1.75	2.125	2.00	2.375	2.00	1.75	1.75	1.625	1.25	1.375	1.75	2.00	2.00	1.50
	1.00	1.50	1.75	1.50	2.00	1.75	2.00	2.00	1.50	1.00	1.125	1.50	2.75	1.75	2.00
	1.50	1.625	2.125	1.50	2.00	2.125	1.875	2.125	1.875	1.75	1.50	2.125	2.00	1.50	1.50
	1.75	1.50	2.25	1.50	1.875	2.00	1.50	2.25	1.875	1.25	1.875	1.375	2.00	1.25	2.00
	1.625	1.75	1.75	1.375	2.00	1.875	1.75	3.00	1.75	1.50	1.50	1.50	1.75	1.75	1.50
	1.625	1.625	1.50	1.375	2.00	1.75	1.375	2.50	1.625	1.75	1.50	1.50	2.00	1.75	1.50
	1.50	1.50	2.00	1.75	1.875	1.50	1.50	2.00	1.75	1.00	1.50	1.625	2.00	1.50	1.75
	2.00	1.875	2.00	1.50	2.125	1.75	1.50	1.625	1.875	1.00	1.50	1.50	2.00	1.75	1.625
	2.00	1.50	1.875	1.375	2.00	1.625	1.875	2.75	1.875	1.25	1.25	2.125	2.50	1.875	1.375
	1.50	1.625	1.75	1.50	2.50	2.00	1.50	1.875	1.50	1.00	1.125	1.625	2.375	1.50	2.00
	1.75	1.625	1.75	1.50	2.125	1.50	1.375	1.875	1.875	1.50	1.75	1.75	2.25	1.875	2.00
	1.50	1.625	1.375	1.50	2.50	2.00	1.375	1.875	1.75	1.25	1.875	1.875	2.00	2.00	2.00
	1.875	1.625	1.875	1.50	2.375	2.125	1.625	2.00	2.125	1.25	1.375	1.875	2.00	1.625	2.00
	1.625	1.50	1.75	1.625	1.75	1.50	2.00	2.125	1.75	1.00	1.50	1.50	1.375	2.00	2.25
	2.125	1.75	1.75	1.00	2.125	2.375	1.50	2.125	1.875	1.25	1.625	1.50	2.125	2.125	1.625
	1.50	1.875	1.75	1.625	2.00	1.50	1.50	1.50	1.875	1.125	1.75	1.875	2.375	1.875	2.00
	1.75	1.50	1.75	1.375	1.75	1.75	1.50	2.00	2.00	1.50	1.75	2.00	2.125	2.125	2.00
	1.75	1.75	1.625	1.25	2.125	2.00	2.125	1.875	2.00	1.375	1.50	1.75	2.125	1.625	2.00
	2.25	1.625	2.00	1.50	1.75	1.625	1.50	1.50	1.50	1.00	2.125	1.625	2.00	1.625	2.00
	1.75	1.625	2.125	2.00	1.50	1.50	1.75	1.50	1.50	1.75	1.75	1.50	1.75	2.125	2.375
	1.50	1.00	1.50	2.00	2.125	1.75	1.875	1.25	2.00	1.00	1.25	2.00	2.125	1.50	2.50
	1.375	1.50	2.00	1.50	2.375	2.00	1.75	1.625	2.00	1.50	1.25	1.625	2.00	1.625	1.75
	1.625	1.50	1.50	1.25	2.00	2.375	2.375	2.125	1.625	1.625	1.75	1.50	2.125	1.50	2.50
	1.50	2.00	2.00	1.25	1.625	1.625	1.625	2.00	2.375	1.50	1.50	1.875	2.25	1.75	2.00
	1.875	1.875	1.375	1.00	2.00	2.125	1.50	2.00	1.50	1.375	1.75	2.00	2.375	2.00	2.00
	1.625	1.50	1.375	1.75	1.625	2.00	2.00	1.875	1.75	1.50	2.25	1.50	2.00	1.75	1.875
	1.75	1.625	2.375	1.25	2.50	1.875	1.50	1.50	1.625	1.75	1.375	1.875	1.875	2.00	2.00
	1.50	1.75	2.125	1.875	2.375	1.875	1.50	1.875	1.75	1.875	1.50	1.625	2.00	2.00	2.375
Totals	85.625	82.00	90.00	78.25	102.125	94.250	82.375	94.750	87.250	69.375	74.50	87.875	110.375	89.250	96.875

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements	B′	2.375	0.9350	B′	2.375	0.9350	B′	2.50	0.9842	B′	1.875	0.7380	B′	2.75	1.0826
	B″	2.125	0.8366	B″	2.50	0.9842	B″	3.00	1.1811	B″	2.25	0.8858	B″	2.125	0.8366
	B‴	2.375	0.9350	B‴	2.50	0.9842	B‴	2.375	0.9350	B″	2.50	0.9842	B‴	2.50	0.9842
Highest			2.375	0.9350		2.50	0.9842		3.00	1.1811		2.50	0.9842		2.75	1.0826
Minimum measurements	B′	1.25	0.4921	B′	1.00	0.3937	B′	1.375	0.5413	B′	1.00	0.3937	B′	1.375	0.5413
	B″	1.25	0.4921	B″	1.50	0.5905	B″	1.25	0.4921	B″	1.00	0.3937	B″	1.25	0.4921
	B‴	1.25	0.4921	B‴	1.50	0.5905	B‴	1.375	0.5413	B‴	1.25	0.4921	B‴	1.375	0.5413
Lowest			1.25	0.4921		1.00	0.3937		1.375	0.5413		1.00	0.3937		1.25	0.4921
Average measurements	B′	1.712	0.6740	B′	1.585	0.6240	B′	1.747	0.6877	B′	1.387	0.5460	B′	2.208	0.8692
	B″	1.64	0.6456	B″	2.042	0.8039	B″	1.895	0.7464	B″	1.49	0.5866	B″	1.785	0.7027
	B‴	1.89	0.7086	B‴	1.885	0.7421	B‴	1.745	0.6870	B‴	1.76	0.6929	B‴	1.937	0.7625
Average			1.717	0.6759		1.837	0.7232		1.796	0.7070		1.546	0.6086		1.972	0.7763
Measurements above average			77			78			66			50			79
Measurements below average			73			72			84			91			71

TABLE VI (B).—*Measurements of fineness of wools from Herr E. Steiger, Leutewitz, near Meissen, Germany.*

RAMS.

Catalogue number of samples	879.			880.			881.			882.			883.		
Number of section	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.00	1.75	1.50	1.875	1.625	1.75	1.75	1.50	1.50	2.00	1.625	1.875	1.625	1.50	2.00
	1.75	1.75	1.50	1.875	1.50	1.625	1.50	1.625	1.75	1.75	2.00	1.75	1.50	1.50	1.875
	1.75	1.50	2.00	2.00	2.00	1.375	2.00	1.50	1.25	2.00	1.875	2.00	2.00	1.50	2.00
	2.00	1.50	1.75	2.00	1.75	1.50	2.00	1.50	1.75	2.00	2.125	2.125	2.00	1.50	2.00
	2.125	2.00	1.625	1.625	1.875	1.625	1.875	2.125	1.50	2.25	1.75	1.875	2.00	1.625	2.25
	1.50	1.50	2.25	1.875	1.875	1.50	1.75	2.375	1.50	2.25	2.00	2.00	1.875	2.00	1.75
	1.50	1.875	2.00	1.875	1.50	1.50	2.125	2.25	1.50	2.325	2.00	1.75	1.625	1.75	1.875
	1.875	1.50	1.625	2.50	1.625	1.75	1.875	2.125	2.00	1.625	1.75	2.125	1.875	1.75	2.00
	2.00	2.125	1.75	1.625	2.00	2.00	1.875	1.50	2.75	2.375	1.875	1.875	2.50	1.625	1.625
	1.50	1.875	2.25	1.75	1.50	2.00	2.00	1.50	1.50	2.00	1.75	1.625	2.00	1.75	2.25
	2.00	1.75	2.00	2.00	2.25	1.75	1.75	2.00	1.25	1.50	1.50	1.625	2.00	1.75	1.625
	1.50	1.75	1.875	1.625	1.50	1.50	2.00	2.00	1.875	2.00	1.875	2.00	1.75	1.75	2.00
	1.50	1.50	1.875	2.00	1.375	2.00	2.00	1.50	1.50	2.00	2.25	2.00	2.375	2.00	2.125
	2.00	2.00	2.00	1.75	1.50	2.00	1.50	1.75	1.75	1.50	1.625	2.00	1.625	2.125	1.625
	2.00	1.625	1.75	2.125	2.375	1.50	1.50	1.75	1.50	2.75	1.875	2.00	2.00	1.875	2.00
	2.00	2.00	1.875	2.00	1.125	2.00	1.75	1.50	1.50	1.50	2.00	2.50	1.875	1.875	1.50
	2.125	1.50	2.00	1.625	2.00	1.75	1.50	1.50	2.375	3.00	2.00	1.625	1.875	1.50	1.00
	2.375	2.00	1.375	1.50	2.00	1.375	2.25	1.50	1.50	1.625	1.875	1.875	2.625	2.00	2.00
	1.50	1.75	1.75	1.625	1.875	2.00	2.00	1.625	1.375	2.125	2.00	1.625	2.00	1.625	2.00
	2.50	1.75	1.50	1.625	2.00	1.625	2.25	1.875	2.00	2.125	1.75	1.625	1.75	1.50	1.00
	1.50	1.50	1.00	2.125	1.875	2.50	2.00	1.50	2.125	1.50	1.625	1.875	2.50	1.50	2.375
	1.50	1.625	2.00	2.00	1.75	1.75	1.625	2.00	1.50	1.75	2.00	2.50	1.50	1.75	2.125
	1.50	2.25	2.00	2.00	1.50	1.50	1.75	1.50	1.875	2.00	2.00	2.25	1.75	1.50	1.00
	1.625	1.75	1.75	2.00	1.50	1.625	1.50	1.75	1.625	2.625	2.375	2.125	1.50	1.50	1.875
	1.50	1.50	1.50	2.00	1.875	2.00	1.75	1.50	1.50	1.625	2.25	1.875	2.00	2.00	2.00
	2.00	2.00	2.00	2.00	1.875	1.875	2.00	1.75	2.125	2.125	2.00	1.50	2.375	2.00	2.625
	2.125	1.50	1.875	1.875	1.25	1.75	1.75	1.875	1.50	1.625	1.875	2.25	1.625	1.50	2.00
	1.625	1.625	1.50	2.00	1.875	1.75	2.00	1.50	1.875	2.125	2.00	1.625	1.50	1.25	2.00
	2.00	1.75	1.75	1.50	1.75	2.00	2.00	2.00	1.875	1.625	2.25	2.25	1.75	1.875	2.00
	1.625	1.75	1.50	2.25	2.00	2.875	2.125	1.625	2.125	2.00	2.125	2.00	3.375	1.50	1.625
	1.50	1.875	2.00	1.625	2.125	1.875	2.00	2.00	1.50	2.00	1.50	2.50	1.625	2.00	1.875
	2.00	1.50	1.875	1.50	2.00	1.50	2.00	2.00	1.75	2.625	1.625	2.00	2.00	1.25	2.00
	1.625	1.50	1.50	2.00	2.00	2.25	1.875	1.50	1.625	1.625	2.125	2.00	2.125	1.875	1.875
	2.00	2.00	2.125	1.50	2.25	2.00	2.00	1.75	1.625	1.875	2.25	2.50	1.50	2.00	2.00
	1.75	1.75	1.625	1.875	2.00	1.875	1.625	1.875	1.50	2.25	1.875	1.75	2.125	1.875	1.875
	1.50	2.00	1.50	2.00	2.00	2.00	1.625	2.00	1.875	2.00	2.125	2.00	2.00	1.625	1.75
	1.75	1.75	1.50	1.875	1.875	1.50	1.50	2.00	1.875	2.125	1.75	2.00	1.875	1.50	2.00
	1.75	1.50	1.75	2.125	1.50	1.75	1.75	1.625	2.00	2.00	1.50	2.00	1.75	2.00	1.50
	1.50	1.875	1.50	2.00	2.25	2.125	1.625	1.50	1.75	2.00	2.375	2.125	2.00	2.00	2.00
	1.50	1.75	2.00	1.375	1.50	1.50	2.00	1.625	1.625	2.00	2.00	1.625	1.875	2.00	2.00
	1.50	2.125	1.75	1.625	1.50	1.50	1.50	2.00	1.875	1.875	2.50	1.75	2.25	1.75	2.00
	1.50	1.625	1.625	2.125	1.625	2.00	1.50	1.75	1.875	2.00	2.00	2.00	1.75	1.875	2.25
	2.00	1.625	1.75	1.875	1.625	2.00	1.50	1.50	1.75	2.125	1.875	2.125	2.25	2.00	1.875
	2.00	2.00	1.625	2.00	1.75	1.75	1.625	1.625	2.00	1.875	2.125	1.625	1.625	2.25	2.125
	1.50	2.00	2.125	2.00	1.75	1.625	1.875	2.00	2.00	2.00	1.625	2.125	1.50	1.875	1.875
	1.50	2.00	1.75	2.25	1.50	1.50	2.00	1.50	1.50	2.00	2.375	2.125	2.00	2.00	2.00
	1.75	1.625	1.50	1.625	1.875	1.375	1.50	1.75	2.125	2.25	2.00	1.625	1.50	2.50	2.00
	1.50	1.625	2.00	1.75	1.75	2.00	1.875	1.50	1.625	1.875	1.625	1.625	2.00	1.625	2.00
Totals	87.625	87.625	88.50	93.50	88.625	88.625	90.875	87.125	87.75	101.75	96.625	97.625	96.625	88.625	94.625

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements	B′.	2.375	0.9350	B′.	2.50	0.9842	B′.	2.25	0.8858	B′.	3.00	1.1811	B′.	3.375	1.3287
	B″.	2.25	0.8858	B″.	2.375	0.9350	B″.	2.375	0.9350	B″.	2.50	0.9842	B″.	2.50	0.9842
	B‴.	2.25	0.8858	B‴.	2.875	1.1318	B‴.	2.75	1.0826	B‴.	2.50	0.9842	B‴.	2.625	1.0334
Highest		2.375	0.9350		2.875	1.1318		2.75	1.0826		3.00	1.1811		3.375	1.3287
Minimum measurements	B′.	1.50	0.5905	B′.	1.375	0.5413	B′.	1.50	0.5905	B′.	1.50	0.5905	B′.	1.50	0.5905
	B″.	1.50	0.5905	B″.	1.125	0.4429	B″.	1.50	0.5905	B″.	1.50	0.5905	B″.	1.25	0.4921
	B‴.	1.00	0.3937	B‴.	1.375	0.5413	B‴.	1.25	0.4921	B‴.	1.50	0.5905	B‴.	1.00	0.3937
Lowest		1.00	0.3937		1.125	0.4429		1.25	0.4921		1.50	0.5905		1.00	0.3937
Average measurements	B′.	1.753	0.6901	B′.	1.87	0.7362	B′.	1.818	0.7157	B′.	2.035	0.8011	B′.	1.932	0.7606
	B″.	1.753	0.6901	B″.	1.773	0.6980	B″.	1.743	0.6862	B″.	1.933	0.7610	B″.	1.772	0.6976
	B‴.	1.77	0.6968	B‴.	1.773	0.6980	B‴.	1.755	0.6909	B‴.	1.953	0.7688	B‴.	1.892	0.7448
Average		1.755	0.6909		1.805	0.7106		1.772	0.6976		1.973	0.7776		1.865	0.7342
Measurements above average		58			76			66			89			92	
Measurements below average		92			74			111			61			58	

TABLE VI (B).—*Measurements of fineness of wools from Herr E. Steiger, Leutewitz, near Meissen, Germany*—Continued.

	RAMS.												EWES.		
Catalogue number of samples	884.			885.			886.			887.			878.		
Number of section	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.
Actual measurements in centimillimeters.	2.00	2.25	1.75	1.875	1.875	2.00	2.25	2.00	2.375	1.875	2.50	1.50	1.625	1.75	1.875
	1.875	2.00	1.50	1.625	1.75	1.75	1.625	1.625	1.625	1.875	1.625	2.00	1.875	1.50	1.50
	2.00	2.00	1.50	1.50	1.50	1.875	1.50	1.625	2.50	1.50	2.00	1.625	1.50	1.625	1.75
	2.00	2.00	2.00	1.50	2.25	1.75	1.75	1.875	1.50	2.125	2.00	2.00	1.125	2.00	1.625
	2.00	2.00	2.50	1.875	1.50	2.00	1.50	2.00	1.50	2.00	2.00	2.00	1.125	2.00	2.00
	2.00	2.375	1.75	2.00	2.00	2.00	2.00	2.00	2.375	1.875	2.125	1.875	2.00	1.625	1.50
	2.375	2.00	2.00	1.875	1.75	1.75	1.50	1.625	1.50	2.00	1.50	1.875	1.375	2.00	1.50
	1.625	2.00	2.50	1.50	1.625	2.00	2.00	1.875	2.50	1.50	1.625	1.375	1.625	1.625	1.75
	1.625	2.25	1.625	1.50	2.125	2.50	1.75	2.125	2.00	1.50	2.00	2.00	1.50	1.875	1.75
	2.00	1.875	2.00	2.00	1.75	2.25	1.875	1.50	1.875	1.50	2.50	1.875	1.50	1.50	1.50
	1.875	2.25	2.00	1.625	2.125	2.00	1.625	1.625	2.125	1.625	1.50	2.25	1.375	1.625	2.00
	1.50	2.00	2.00	1.875	1.875	2.50	1.625	1.625	2.375	1.625	2.00	1.75	1.625	2.00	1.50
	2.00	2.00	2.50	2.00	1.875	1.75	1.75	1.875	1.50	1.50	1.875	1.25	2.00	1.50	1.50
	1.75	2.25	1.75	2.00	1.625	2.00	2.00	2.00	2.125	1.75	2.00	2.00	1.50	1.50	1.25
	2.00	1.50	1.625	1.875	1.75	2.00	1.875	1.625	2.375	1.50	1.625	2.125	1.625	1.625	1.50
	2.125	1.875	1.625	1.50	1.625	2.00	1.875	1.875	1.875	1.875	1.75	1.625	1.25	1.75	1.75
	2.00	1.625	1.625	2.00	1.875	1.875	1.625	1.50	1.375	1.50	1.50	2.00	1.50	1.875	1.50
	2.00	2.00	1.50	2.25	1.75	1.625	1.625	1.875	1.50	1.75	2.375	2.00	1.50	1.625	2.00
	1.75	1.50	1.75	2.375	1.75	2.00	2.125	2.00	2.25	1.50	1.625	1.875	1.25	1.25	1.375
	1.625	1.875	2.50	1.625	1.50	1.625	1.75	2.00	1.75	1.50	2.00	1.625	1.625	1.375	1.75
	1.75	1.625	1.875	1.50	2.00	2.00	1.875	2.00	2.00	1.50	2.375	1.75	1.50	1.625	2.00
	2.125	2.00	2.75	1.875	1.625	2.00	2.00	1.75	1.875	1.50	1.625	1.625	1.25	1.50	1.50
	2.375	2.00	2.50	2.50	1.50	1.50	2.25	2.00	1.50	1.50	1.625	1.75	2.00	1.50	1.75
	2.00	2.375	1.25	1.50	1.375	2.50	1.875	1.50	2.375	1.625	1.75	2.25	1.625	1.375	1.625
	2.00	1.875	2.50	1.75	1.875	2.25	2.00	1.75	2.00	1.75	1.375	1.75	1.625	1.50	1.50
	1.50	2.00	1.875	2.00	1.625	1.875	1.375	2.00	2.50	1.625	1.50	2.00	2.00	1.50	1.50
	1.50	1.50	2.00	1.75	2.00	2.00	2.50	2.00	1.50	1.625	1.25	1.50	1.50	1.375	2.00
	2.00	1.75	2.375	2.00	1.50	2.375	1.75	1.50	2.00	2.25	1.875	1.75	1.50	1.875	
	2.00	1.625	1.75	1.50	2.00	2.00	1.50	1.75	2.00	1.875	1.25	2.25	1.75	2.00	2.00
	2.00	2.00	1.875	1.75	2.00	2.00	2.00	1.75	2.00	2.125	2.00	2.025	1.50	1.75	1.50
	1.875	1.875	2.25	1.50	1.75	2.125	1.875	1.875	2.00	1.75	2.00	2.25	1.25	1.625	1.375
	1.625	1.50	2.875	2.125	1.50	1.875	2.00	1.875	2.125	1.625	1.75	1.75	1.75	1.875	1.625
	1.875	1.625	2.00	1.875	1.375	2.00	2.00	2.00	2.125	2.375	2.00	2.00	1.625	1.375	1.875
	1.50	1.625	2.00	2.00	2.00	2.375	2.00	1.50	1.625	1.50	2.125	1.50	1.625	1.50	2.00
	1.875	2.00	2.00	2.375	1.875	2.00	2.00	1.875	1.875	1.50	2.25	1.50	1.75	1.75	1.875
	2.00	1.625	2.50	1.625	1.875	2.00	1.625	2.00	2.625	1.875	1.50	1.50	1.375	1.625	2.00
	2.00	1.50	2.125	1.625	1.75	1.75	1.875	2.75	2.375	1.75	1.875	2.00	1.75	1.625	1.625
	1.625	1.625	2.125	2.25	2.00	2.00	2.00	2.00	1.625	1.75	1.25	2.00	1.50	1.50	1.50
	1.875	1.625	1.75	2.125	2.375	2.125	1.50	2.00	2.00	1.375	1.875	2.00	1.50	2.00	1.50
	2.00	2.375	2.00	2.00	1.625	2.00	1.625	2.50	1.75	1.50	1.50	1.875	2.00	2.125	1.75
	2.625	1.625	2.50	2.00	1.375	1.50	1.875	1.50	1.75	1.50	1.50	1.875	1.50	2.375	1.50
	1.50	1.50	1.375	2.00	1.625	2.00	1.75	2.50	2.50	2.50	1.50	2.375	1.625	1.625	2.00
	1.625	2.00	1.875	2.00	1.50	1.875	2.00	2.00	1.625	1.875	1.50	1.50	1.50	1.75	2.50
	2.125	1.50	2.00	2.00	1.50	1.875	2.00	1.50	2.00	2.00	1.75	1.875	1.50	1.625	1.50
	2.75	1.875	3.00	1.375	1.50	1.875	1.625	1.875	2.75	1.75	1.875	1.625	1.625	1.625	1.50
	2.00	1.875	2.50	1.50	2.375	2.00	2.00	2.125	2.50	2.00	1.625	1.625	1.25	1.50	2.00
	1.50	1.75	2.00	1.25	1.50	2.875	1.875	1.75	1.625	1.875	2.625	2.00	1.625	1.50	1.50
	2.25	1.75	2.50	1.50	1.50	1.875	2.00	2.00	2.00	2.00	2.00	2.375	1.625	1.375	2.00
	2.125	1.75	2.125	2.00	2.125	2.00	2.50	1.875	1.50	1.50	1.50	1.50	1.50	1.875	1.50
	2.125	2.00	2.25	1.50	1.875	1.875	1.875	1.50	2.125	1.375	1.625	2.125	1.50	2.00	1.875
Totals	96.50	93.875	102.50	91.125	88.125	100.25	93.375	93.00	99.25	86.375	90.75	93.125	79.375	83.50	85.625

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:															
Maximum measurements	B'	2.75	1.0826	B'	2.50	0.9842	B'	2.50	0.9842	B'	2.50	0.9842	B'	2.00	0.7874
	B''	2.50	0.9842	B''	2.375	0.9350	B'	2.75	1.0826	B''	2.625	1.0334	B'	2.375	0.9350
	B'''	3.00	1.1811	B'''	2.875	1.1318	B'''	2.625	1.0334	B'''	2.625	1.0334	B'''	2.50	0.9842
Highest		3.00	1.1811		2.875	1.1318		2.75	1.0826		2.625	1.0334		2.50	0.9842
Minimum measurements	B'	1.50	0.5905	B'	1.25	0.4921	B'	1.375	0.5413	B'	1.375	0.5413	B'	1.125	0.4429
	B''	1.50	0.5905	B''	1.375	0.5413	B''	1.50	0.5905	B''	1.25	0.4921	B''	1.25	0.4921
	B'''	1.25	0.4921	B'''	1.50	0.5905	B'''	1.375	0.5413	B'''	1.125	0.4429	B'''	1.25	0.4921
Lowest		1.25	0.4921		1.25	0.4921		1.375	0.5413		1.125	0.4429		1.125	0.4429
Average measurements	B'	1.93	0.7598	B'	1.823	0.7177	B'	1.868	0.7353	B'	1.728	0.6803	B'	1.588	0.6251
	B''	1.875	0.7383	B''	1.763	0.6940	B'	1.86	0.7322	B''	1.815	0.7145	B''	1.67	0.6634
	B'''	2.05	0.8070	B'''	2.005	0.7893	B'''	1.982	0.7814	B'''	1.862	0.7334	B'''	1.713	0.6744
Average		1.952	0.7685		1.863	0.7334		1.904	0.7496		1.802	0.7094		1.657	0.6523
Measurements above average		83			89			69			72			53	
Measurements below average		67			61			81			78			97	

TABLE VII (A).—*Measurements of strain and stretch of Negretti wools from E. W. Perry, Chicago, Ill.*

Catalogue number of samples..	400.				401.				402.				403.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	6.25	7.25	3.50	1.50	3.00	4.00	3.00	6.50	4.50	4.25	5.00	6.00	4.00	4.00	4.50	4.75
	2.00	2.00	5.75	4.25	3.25	7.00	3.00	5.00	4.25	3.00	4.00	6.75	6.75	7.25	3.75	7.25
	5.50	2.25	3.00	5.75	1.75	3.00	1.25	1.25	5.50	6.25	2.50	8.00	5.25	4.75	4.00	8.00
	3.00	1.50	4.00	2.00	4.00	6.75	3.25	5.75	3.25	4.00	4.25	7.25	2.00	6.75	5.25	6.00
	2.50	6.75	4.25	7.00	2.75	5.25	4.50	7.25	4.00	1.50	3.50	9.00	5.25	6.25	3.00	6.50
	4.00	7.50	2.50	4.00	2.25	6.00	3.00	4.25	3.50	1.25	3.75	8.00	4.50	3.25	4.00	3.00
	5.00	3.75	2.75	5.25	3.50	3.25	5.25	6.75	3.25	2.50	3.75	5.00	4.00	6.25	6.00	5.00
	4.75	2.00	3.25	6.50	4.00	6.00	2.75	4.75	4.50	5.25	3.50	8.25	5.75	2.50	4.75	4.00
	4.25	6.25	2.75	1.25	2.375	7.375	2.00	4.25	3.50	6.00	3.25	7.00	5.00	6.00	5.50	7.00
	3.25	5.00	4.25	5.75	4.75	1.50	2.00	6.50	4.00	3.50	3.50	7.75	4.00	5.00	5.25	4.75
	4.25	3.50	3.25	3.00	1.50	2.25	3.75	6.00	4.00	3.25	6.25	7.25	3.25	3.00	5.00	5.75
	4.50	3.50	5.75	6.50	2.00	6.75	3.75	7.00	3.00	6.00	4.00	6.00	3.50	3.00	7.25	7.00
Actual measurement in grams and millimeters.	3.00	2.00	2.75	3.00	2.25	6.00	3.00	5.75	4.00	7.75	5.25	7.75	4.50	4.00	4.00	5.50
	3.25	3.25	3.75	3.75	5.00	7.75	4.00	7.50	3.25	6.00	3.25	6.50	3.25	3.25	4.50	7.25
	2.25	3.25	6.50	2.25	4.50	7.00	2.75	4.75	3.00	5.25	4.25	9.25	4.25	6.50	5.00	6.25
	5.25	3.00	4.00	1.50	4.00	6.75	2.75	3.50	3.50	7.25	3.00	7.00	4.75	7.50	3.25	5.00
	4.00	2.00	4.00	3.75	4.25	4.25	3.50	3.75	3.00	7.00	2.75	6.00	3.25	5.25	4.00	5.00
	5.00	2.50	5.00	1.50	3.75	4.00	3.00	3.75	3.25	6.25	2.75	5.00	5.25	7.00	5.00	2.25
	5.50	6.50	3.75	2.25	3.75	3.25	2.75	2.75	3.50	7.25	3.25	7.50	6.50	5.00	5.00	6.50
	6.00	4.00	5.00	1.00	5.50	4.00	3.50	4.75	3.25	3.00	2.00	2.75	5.25	5.00	6.25	7.00
	4.00	4.00	4.00	2.75	3.25	3.00	3.75	4.25	4.00	8.25	2.75	4.25	4.00	5.25	5.00	3.50
	5.00	3.25	4.00	4.75	4.00	2.75	3.25	4.25	3.00	7.75	2.00	6.25	6.25	4.00	5.75	3.00
	5.00	3.75	7.25	3.00	4.25	5.00	4.25	5.25	3.25	4.50	3.00	7.00	5.75	3.75	4.00	4.00
	4.00	1.25	4.75	5.00	3.25	4.00	3.25	3.75	5.00	8.75	3.25	4.75	4.00	5.00	5.25	3.25
	5.00	2.00	3.00	1.75	4.00	4.50	4.25	4.00	6.00	7.75	3.75	6.75	5.25	3.75	7.00	6.00
Totals	106.50	92.00	102.75	89.00	86.875	121.375	81.50	123.25	95.25	132.50	88.50	167.00	115.50	123.25	122.25	133.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	7.25	111.90	7.50	37.50	5.50	84.89	7.75	38.75	6.25	96.47	9.25	46.25	7.25	111.90	8.00	40.00
Lowest	2.00	30.87	1.00	5.00	1.25	19.29	1.25	6.25	2.00	30.87	1.25	6.25	2.00	30.87	2.25	11.25
Average	4.18	64.53	3.62	18.10	3.37	52.01	4.89	24.45	3.68	56.80	5.99	29.95	4.76	73.47	5.14	25.70
Tests above average	23		22		24		23		18		33		25		23	
Tests below average	27		28		26		27		32		17		25		27	

Catalogue number of samples..	404.				405.				406.				407.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	3.75	6.00	2.50	4.00	7.75	5.75	3.00	3.25	4.25	6.00	3.00	3.00	3.50	4.00	5.25	3.50
	3.25	4.00	2.50	2.50	3.75	5.00	6.00	4.50	3.25	5.00	7.25	5.25	3.00	3.75	4.00	7.00
	2.50	3.00	3.00	2.25	6.00	4.75	1.75	4.25	7.00	5.00	2.25	4.00	4.75	4.25	3.75	7.00
	2.00	1.25	3.00	3.50	3.75	1.00	4.00	4.75	3.75	7.50	4.00	5.25	4.00	2.00	1.75	4.00
	2.50	2.00	2.50	6.00	2.75	4.50	1.50	0.75	5.00	4.25	3.00	6.00	3.00	5.00	3.00	4.00
	4.50	5.00	3.00	3.00	5.75	4.75	6.75	4.75	6.50	2.25	3.50	5.00	2.00	2.75	3.00	4.50
	3.75	5.00	5.00	6.00	6.75	5.25	3.00	1.75	5.00	6.50	3.00	4.00	2.75	4.25	3.75	6.75
	4.00	4.00	2.75	3.00	3.25	5.00	6.75	5.25	5.25	8.50	7.00	6.75	3.00	5.00	3.00	2.50
	3.00	4.00	3.00	3.25	2.75	1.50	3.25	0.75	3.00	2.00	3.25	6.00	3.00	5.25	2.25	3.00
	4.00	6.00	3.50	3.50	4.75	5.75	6.25	6.00	4.00	2.50	3.00	4.50	6.00	5.75	2.50	3.75
	3.00	3.00	2.75	2.00	4.00	3.00	4.50	4.25	3.50	4.75	2.50	1.00	3.00	4.00	3.00	4.00
Actual measurement in grams and millimeters.	3.25	5.00	3.75	4.00	2.75	2.00	6.75	7.00	3.25	3.50	5.50	1.25	2.25	2.50	2.00	2.00
	3.00	2.25	4.00	7.00	2.50	1.75	5.75	5.00	5.00	1.00	3.75	4.00	3.00	6.00	3.00	3.00
	4.50	7.50	2.50	2.25	4.00	5.75	4.25	4.00	3.75	1.25	4.75	4.25	1.50	4.00	1.75	1.75
	1.75	1.00	4.00	5.00	6.75	4.75	3.50	4.75	2.50	2.50	4.75	7.50	3.00	5.75	3.00	7.00
	2.00	1.00	5.25	3.50	2.75	3.50	3.00	4.00	6.00	4.00	7.25	4.25	5.00	4.00	5.25	6.50
	3.25	3.25	3.25	4.00	2.75	5.75	4.25	2.00	5.75	7.00	4.00	5.125	7.00	4.75	1.75	4.00
	3.25	6.00	3.75	3.00	3.75	4.75	3.00	2.75	3.00	2.375	3.00	4.75	4.00	7.00	2.00	4.50
	5.50	3.25	3.25	2.00	7.25	7.75	2.75	5.25	6.00	7.00	4.50	6.00	5.00	7.25	4.00	5.25
	2.75	4.00	7.00	8.00	4.00	6.00	3.75	2.75	5.00	8.00	3.25	4.00	7.00	4.25	7.00	6.00
	2.00	2.50	3.50	4.50	4.75	2.75	4.00	3.75	5.25	3.00	2.25	4.625	4.00	6.75	2.00	3.00
	5.75	5.00	3.75	2.50	4.00	4.25	2.25	5.75	5.75	4.25	3.00	4.00	3.25	7.00	2.50	3.00
	2.75	2.00	3.50	7.00	4.00	2.00	6.50	5.75	2.25	2.75	4.75	1.50	4.00	4.00	5.00	4.00
	3.50	5.00	4.00	4.00	2.50	4.00	3.00	5.75	4.25	4.75	3.00	3.75	5.00	6.25	2.50	5.25
	3.50	4.00	3.00	1.00	3.00	2.75	3.50	2.50	4.00	4.75	4.25	3.25	4.00	3.75	3.00	1.00
Totals	83.00	95.50	87.00	96.75	105.50	104.00	105.00	101.25	112.25	110.375	100.75	109.00	96.00	117.25	79.40	106.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	7.00	108.04	8.00	40.00	7.75	119.617	7.75	38.75	7.25	111.90	8.50	42.50	7.00	108.042	7.25	36.25
Lowest	1.25	19.29	1.00	5.00	1.50	23.15	0.75	3.75	2.25	34.73	1.00	5.00	1.50	23.153	1.00	5.00
Average	3.40	52.48	3.945	19.725	4.21	64.979	4.11	20.55	4.26	65.75	4.39	21.95	3.51	54.176	4.47	22.35
Tests above average	21		25		19		29		20		24		29		22	
Tests below average	29		25		31		21		30		26		30		28	

TABLE VII (A).—*Measurements of strain and stretch of Negretti wools from E. W. Perry, Chicago, Ill.*—Continued.

Catalogue number of samples..	408.				409.				410.				411.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	6.00	3.00	6.75	1.25	4.00	6.00	4.00	5.25	2.25	7.00	5.00	8.00	2.25	3.25	3.25	2.00
	3.25	1.00	3.00	5.75	3.50	6.25	2.50	1.00	5.25	6.75	2.00	2.75	6.00	1.00	3.25	2.25
	4.75	7.00	4.25	1.25	1.75	5.75	2.50	3.25	3.00	7.50	4.00	5.25	5.75	4.00	3.75	2.50
	3.00	4.25	4.75	5.00	2.75	4.50	3.50	5.50	4.00	6.50	1.75	3.00	3.00	3.00	3.00	3.25
	5.00	3.75	4.75	6.25	3.75	3.50	3.00	4.75	2.25	6.50	3.00	6.00	4.75	4.00	3.25	1.00
	5.25	5.00	4.00	3.25	2.75	3.25	3.75	6.00	4.25	9.75	2.75	3.00	2.25	2.50	2.00	3.25
	3.00	1.75	3.50	6.00	3.00	3.25	1.75	5.00	1.75	3.75	2.75	2.25	2.75	2.25	3.75	4.00
	3.00	2.00	3.00	2.00	2.75	7.00	3.00	4.25	2.75	8.00	3.00	4.00	4.00	2.25	3.50	4.25
	2.75	1.25	5.00	3.75	3.00	5.00	3.50	4.25	2.75	3.00	3.50	6.25	3.25	2.75	6.25	6.25
	6.75	6.75	5.75	6.25	2.25	1.75	2.50	4.75	2.00	4.00	3.50	3.25	3.00	2.00	3.50	3.50
	4.00	5.75	3.75	2.75	3.00	5.75	5.00	7.25	2.25	2.00	5.50	5.50	3.00	2.50	3.50	5.25
Actual measurement in grams and millimeters.	4.25	5.75	2.25	3.25	2.25	5.75	2.25	3.75	3.00	3.00	2.00	1.75	4.50	3.25	4.00	2.00
	4.75	2.50	4.25	4.75	4.00	4.00	3.00	7.50	2.50	8.25	2.50	2.50	5.25	3.50	2.25	3.00
	3.75	2.25	4.00	3.00	2.50	6.75	2.75	7.00	2.75	2.25	2.50	3.50	7.75	3.50	3.00	4.50
	6.25	7.25	4.00	5.50	2.75	2.00	3.00	3.25	2.00	4.25	3.00	3.00	5.50	4.00	4.25	2.00
	3.25	4.00	3.75	2.00	3.25	3.00	2.00	2.00	4.00	2.50	4.00	2.00	3.75	2.25	4.00	3.00
	3.25	2.50	5.25	4.00	3.25	2.75	3.00	4.00	3.00	5.25	4.25	3.00	3.25	2.00	3.00	4.25
	5.875	4.125	3.50	1.75	3.75	3.00	3.25	4.00	5.00	6.00	3.25	1.00	3.50	4.25	3.25	4.75
	6.25	3.50	3.25	2.75	2.00	2.75	2.25	1.25	5.25	3.00	3.25	2.75	3.25	2.50	5.00	2.75
	3.20	2.00	4.75	1.75	1.25	1.00	2.25	1.25	2.50	6.00	3.00	1.00	4.25	6.25	2.25	3.50
	6.50	6.00	5.00	2.00	5.50	4.25	5.75	3.00	3.50	3.50	4.00	3.25	4.75	3.75	4.25	3.00
	4.875	3.50	4.25	3.75	3.75	1.75	3.75	3.00	3.75	5.00	5.00	6.00	3.00	3.25	2.75	3.50
	4.00	2.25	2.50	3.25	2.50	3.00	2.00	1.75	3.00	5.00	5.00	5.00	2.50	2.25	4.50	5.50
	3.50	2.50	5.00	2.00	3.00	4.00	3.00	4.75	3.00	4.00	4.00	1.00	2.75	2.75	3.25	4.00
	3.25	2.50	6.00	3.75	3.25	4.00	3.25	4.75	2.50	6.00	3.50	3.50	2.50	2.25	3.75	2.75
Totals	112.75	94.125	100.25	86.00	75.50	99.00	77.00	102.50	78.25	98.75	88.50	97.25	95.50	76.25	91.50	83.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	6.75	104.18	7.25	36.25	5.75	88.75	7.50	37.50	5.50	84.89	9.75	48.75	7.75	119.62	6.25	31.25
Lowest	2.25	34.73	1.25	6.25	1.25	19.29	1.00	5.00	1.75	27.01	1.00	5.00	2.00	30.87	1.00	5.00
Average	4.38	67.60	3.60	18.00	3.03	47.08	4.03	20.15	3.34	51.53	3.92	19.60	3.74	57.73	3.23	16.15
Tests above average	22		22		19		28		19		25		20		24	
Tests below average	28		28		31		27		31		25		30		26	

Catalogue number of samples..	412.				413.				414.				415.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	5.00	7.00	4.25	7.00	3.75	5.75	4.75	6.00	5.00	5.75	2.25	5.00	3.50	4.00	4.50	5.00
	3.00	6.75	4.25	5.75	2.00	5.25	4.25	6.75	4.25	6.75	3.00	4.25	5.50	4.25	2.75	3.00
	4.00	6.25	4.75	5.75	4.25	6.75	3.00	2.25	1.25	2.50	3.75	6.00	5.00	2.75	3.00	1.00
	4.00	1.25	3.00	5.75	3.00	3.50	4.00	3.75	3.75	5.00	2.75	5.50	3.75	2.75	7.50	7.25
	2.25	2.25	6.00	5.25	2.75	2.00	4.50	5.50	2.25	5.00	2.00	3.75	3.00	3.75	5.25	4.00
	4.50	3.75	5.25	4.00	4.75	4.00	2.50	2.75	3.50	5.50	3.25	3.00	6.50	3.75	4.25	6.00
	5.00	5.25	4.00	4.00	6.00	6.00	4.00	5.00	3.00	5.75	3.00	5.25	4.50	4.75	2.75	1.25
	4.25	6.00	2.75	1.00	1.75	2.00	4.50	3.00	2.50	4.50	5.00	4.75	4.50	7.00	5.25	5.00
	3.50	7.00	3.50	4.75	5.00	6.25	3.00	1.25	4.00	5.00	2.25	6.25	3.75	4.75	4.25	5.00
	6.00	3.25	3.25	3.00	5.00	2.25	5.50	5.25	2.00	2.00	2.25	3.00	3.00	4.00	3.50	4.00
	3.00	2.25	2.75	3.00	3.00	3.25	4.50	5.00	4.25	3.75	2.25	1.00	3.50	5.00	2.75	2.75
Actual measurement in grams and millimeters.	3.75	5.25	3.75	6.25	3.00	6.00	3.00	5.50	3.75	4.50	5.75	4.50	3.75	2.50	4.50	1.00
	1.75	2.50	3.00	3.75	3.25	3.00	2.50	2.00	3.25	2.25	4.00	6.25	3.00	2.75	2.50	3.00
	3.00	5.50	4.25	7.00	4.75	4.00	3.00	5.00	6.00	5.00	2.25	3.25	4.00	2.25	3.50	1.00
	3.25	4.00	3.00	3.75	4.50	5.00	2.00	4.50	5.25	7.50	2.50	4.75	4.00	7.00	3.50	4.25
	4.00	4.00	3.25	4.25	3.00	3.00	3.75	4.75	2.75	4.00	3.00	5.25	4.00	3.00	3.00	5.00
	5.50	7.00	5.875	4.50	3.00	2.50	4.00	5.00	2.00	2.25	2.25	5.50	5.25	3.125	4.00	5.25
	4.375	4.00	3.50	3.00	4.75	4.00	5.25	2.25	3.00	3.25	5.75	6.50	2.375	4.25	4.00	5.25
	3.25	3.75	5.25	6.50	3.75	7.25	2.00	2.50	1.50	3.00	4.25	3.00	4.00	4.75	2.00	2.00
	3.75	6.00	3.75	5.00	5.25	5.00	4.00	3.00	4.00	6.00	4.75	3.875	4.25	4.75	4.00	5.125
	3.25	3.00	4.00	6.00	4.00	2.50	4.00	2.25	3.25	6.50	3.875	3.75	6.00	6.00	5.50	1.50
	5.75	6.50	3.25	3.00	3.25	4.00	4.00	1.75	8.75	6.50	4.00	5.50	3.00	1.00	3.00	6.50
	3.25	5.25	3.75	4.00	3.00	2.00	4.00	3.75	5.50	6.75	5.75	6.00	4.75	3.00	3.00	6.50
	2.75	6.00	4.00	5.00	2.00	1.00	3.00	1.25	3.75	5.75	5.75	6.75	1.00	3.25	1.75	4.75
	4.25	4.00	2.00	3.25	3.00	4.25	2.75	2.00	2.25	4.00	3.25	4.25	2.25	4.875	2.50	5.00
Totals	96.375	120.75	97.375	115.50	93.25	103.50	92.25	92.00	89.75	118.75	88.875	117.875	100.625	99.25	94.50	103.875

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	6.00	92.588	7.00	35.00	5.00	92.608	7.25	36.25	8.75	135.05	7.50	37.50	7.50	115.76	7.25	36.25
Lowest	1.75	27.01	1.25	6.25	1.75	27.01	1.25	6.25	1.25	19.29	1.00	5.00	2.00	30.87	1.00	5.00
Average	3.875	59.89	4.725	23.62	3.71	57.262	3.91	19.55	3.57	55.10	4.73	23.65	3.90	60.19	4.05	20.25
Tests above average	23		26		27		26		23		28		24		25	
Tests below average	27		24		23		24		27		23		26		25	

TABLE VII (A).—*Measurements of strain and stretch of Negretti wools from E. W. Perry, Chicago, Ill.*—Continued.

Catalogue number of samples..	416.				417.				418.				419.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	4.25	2.00	5.50	6.25	3.25	5.75	3.00	5.75	2.75	1.00	2.50	3.50	4.50	6.00	2 75	2.75
	4.50	2.50	4.50	1.50	2.50	3.00	2.50	6.00	4.50	6.25	3.50	2.50	3.00	1.75	3.50	3.00
	3.50	3.25	2.25	1.00	3.50	5.50	2.00	2.25	4.00	4.75	5.00	3.50	2.375	2.75	3.625	4.75
	3.75	1.00	3.00	2.50	2.00	3.00	2.75	5.75	3.25	6.00	3.50	4.00	3.625	3.75	2.50	2.00
	4.00	3.00	2.00	2.50	3.25	6.00	4.25	7.25	3.00	6.00	3.75	4.00	2.75	4.25	2.625	3.50
	2.50	4.00	2.75	2.00	4.75	6.75	2.75	4.50	4.00	6.00	3.00	3.00	3.00	5.00	2.625	5.75
	3.50	4.75	3.50	3.50	3.00	3.75	3.00	6.00	4.50	5.25	3.00	1.50	2.25	3.25	3.375	4.00
	2.00	2.00	2.25	3.00	3.50	5.25	3.00	6.25	3.50	2.50	2.50	5.00	3.50	3.00	2.00	3.25
	4.50	5.25	1.25	1.00	2.75	4.25	3.75	6.25	2.75	2.00	4.00	6.50	3.50	3.75	2.00	2.00
	2.75	2.25	2.25	3.75	3.25	7.00	2.50	6.00	3.00	3.25	7.00	6.50	4.25	6.00	3.625	5.00
	2.50	2.50	2.50	3.00	3.25	4.75	4.75	7.25	2.00	1.75	4.50	2.50	4.25	7.75	2.25	3.75
	3.50	2.25	3.50	5.00	3.50	5.50	3.00	6.00	4.00	5.50	4.00	3.00	3.375	3.00	3.00	6.75
	1.75	1.00	4.75	3.00	2.25	4.75	3.00	4.00	3.50	1.00	3.50	4.25	2.25	2.00	4.625	7.00
	3.00	1.75	3.00	4.00	2.75	4.00	2.75	5.00	3.25	1.25	4.00	3.75	4.50	7.25	4.00	3.00
	2.00	1.75	2.50	2.75	2.25	4.00	3.00	5.00	4.00	3.00	5.00	3.25	2.75	2.75	4.375	4.25
	7.00	3.75	3.75	2.00	2.75	4.25	2.25	5.75	5.00	4.00	3.00	1.25	4.25	5.25	3.625	2.75
	4.00	3.75	2.75	2.25	2.25	3.75	4.00	6.50	2.00	2.50	4.50	6.00	2.25	3.00	4.25	5.25
	3.00	3.50	5.25	3.00	2.25	5.25	2.75	4.50	6.00	5.50	4.50	5.00	4.00	4.75	3.375	3.00
	2.25	1.75	3.25	3.00	2.50	7.00	2.75	3.75	5.00	4.00	4.00	1.25	3.50	4.00	5.625	6.25
	3.50	3.25	3.50	3.50	4.00	6.75	3.75	6.00	3.00	4.00	6.00	6.50	2.50	3.00	2.00	3.75
	5.00	4.50	4.00	4.00	4.25	4.50	2.75	4.25	3.00	2.50	4.00	2.00	4.375	4.25	2.25	2.25
	5.25	6.00	2.75	3.00	2.25	3.25	5.25	7.00	2.25	3.00	3.00	2.50	4.25	4.00	3.625	2.50
	3.25	3.00	3.00	2.75	3.00	4.75	5.75	8.50	3.50	1.00	4.50	6.00	4.375	3.75	4.50	3.75
	2.75	2.00	4.25	3.50	2.75	5.00	3.75	5.00	3.50	4.00	3.50	6.00	2.375	3.00	4.50	5.00
	2.25	4.00	3.25	3.00	3.25	5.00	3.50	5.25	3.00	1.25	5.00	6.00	2.375	3.00	5.25	6.75
Totals	86.25	74.75	81.25	73.00	76.00	122.75	82.50	139.75	88.25	87.25	100.75	99.25	84.125	100.25	85.875	102.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	7.00	108.042	6.00	30.00	5.75	88.75	8.50	42.50	7.00	108.042	6.50	32.50	5.625	86.819	7.75	38.75
Lowest	1.00	15.435	1.00	5.00	2.00	30.87	2.25	11.25	2.00	30.869	1.00	5.00	2.00	30.869	1.75	8.75
Average	3.37	52.015	2.96	14.80	3.17	48.93	5.25	26.25	3.76	58.034	3.75	18.75	3.40	52.48	4.05	20.25
Tests above average	23		28		20		23		32		24		26		19	
Tests below average	27		22		30		27		18		25		24		31	

Catalogue number of samples..	420.				421.				422.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	2.75	5.50	3.25	7.00	2.00	5.00	5.50	6.50	2.75	2.00	3.75	7.50
	3.00	6.00	5.25	6.25	3.75	3.00	4.25	5.25	5.00	6.875	4.00	6.75
	5.00	7.75	4.75	6.50	4.00	4.00	4.25	7.00	2.25	2.75	7.50	6.50
	5.00	6.75	3.75	6.00	4.25	4.50	3.75	3.00	2.75	6.00	4.50	5.75
	4.25	6.75	2.25	6.75	4.00	2.25	4.00	5.00	4.50	5.50	3.75	3.75
	5.00	6.00	5.25	4.75	4.00	2.00	4.00	5.00	5.50	6.50	5.25	5.00
	6.50	5.25	4.00	8.75	4.00	5.00	4.50	5.00	2.25	2.00	3.75	3.00
	3.00	6.75	4.25	8.25	4.00	6.00	4.25	5.00	4.00	6.75	3.25	2.25
	5.00	6.25	2.50	6.75	3.00	4.00	3.75	6.25	5.25	6.50	5.00	7.75
	3.50	7.25	4.00	5.75	4.75	3.00	3.00	5.00	3.50	5.25	4.00	3.50
	3.25	7.75	5.25	5.75	4.00	6.00	3.25	4.25	4.25	6.25	3.25	6.00
	3.50	4.75	4.00	5.50	4.50	6.00	3.00	6.00	4.00	4.00	2.75	1.25
	2.75	6.75	4.25	7.75	4.50	7.00	3.50	5.50	5.50	6.50	3.25	5.50
	3.00	5.75	7.00	8.50	3.75	3.00	4.00	6.00	4.00	3.50	3.75	3.875
	3.25	6.50	5.25	7.00	4.75	6.00	5.00	5.00	4.25	7.25	4.00	4.50
	2.00	5.00	3.25	7.00	3.50	4.00	5.50	5.50	3.75	5.875	3.75	4.00
	3.25	6.00	4.00	8.50	4.50	6.00	4.00	4.00	3.00	7.75	5.50	7.00
	2.75	7.75	4.00	7.00	5.25	7.00	5.00	5.00	7.00	7.00	4.50	3.75
	4.75	8.00	3.25	5.00	4.00	6.00	4.00	4.00	3.25	2.75	3.75	4.00
	4.25	6.00	2.00	6.00	3.75	4.00	4.50	5.00	5.00	5.875	4.75	4.00
	3.25	8.00	3.25	7.75	4.50	6.00	4.75	4.00	3.75	5.75	3.50	5.75
	2.00	5.00	2.25	0.50	3.75	5.00	4.50	3.00	3.50	3.25	5.50	6.50
	7.50	6.00	4.25	5.00	5.50	5.00	4.00	3.50	4.00	5.50	4.00	4.75
	4.25	7.25	3.50	4.75	4.75	6.25	3.75	4.00	3.50	3.875	4.25	5.25
	3.25	7.25	3.25	4.25	4.00	5.00	2.50	3.00	3.75	6.875	5.25	6.00
Totals	96.00	162.00	98.00	163.00	102.75	121.00	102.50	120.75	100.25	132.125	106.50	124.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per cent.*	*grams.*	*grains.*	*mm.*	*per cent.*	*grams.*	*grains.*	*mm.*	*per cent.*
Highest	7.50	115.76	8.75	43.75	5.50	84.89	7.00	35.00	7.50	115.76	7.75	38.75
Lowest	2.00	30.87	4.25	21.25	2.00	30.87	2.25	11.25	2.25	34.73	1.25	6.25
Average	3.88	59.89	6.50	32.50	4.11	63.44	4.84	24.20	4.14	63.90	5.13	25.65
Tests above average	24		24		21		31		19		29	
Tests below average	26		23		29		19		31		21	

TABLE VII (B).—*Measurements of strain and stretch of wools from Herr E. Steiger, Leutewitz, near Meissen, Germany.*

RAMS.

Catalogue number of samples	879.				880.				881.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	2.375	9.00	3.75	7.75	2.25	9.00	3.50	8.00	3.00	9.25	3.00	8.75
	2.50	8.00	3.125	7.25	1.50	7.75	2.25	8.00	4.25	7.25	5.75	9.75
	3.625	8.875	4.25	9.00	3.25	9.00	2.25	7.00	5.00	10.50	5.00	8.75
	3.75	10.00	2.25	9.00	3.375	8.00	1.75	6.00	4.50	8.25	6.00	8.00
	3.00	6.00	2.50	9.125	3.625	8.75	2.25	7.00	4.25	9.00	3.00	8.75
	3.00	8.50	3.50	8.50	3.50	8.50	2.625	7.875	5.00	8.00	6.00	9.00
	2.25	9.25	4.25	9.00	2.50	9.00	2.75	8.25	3.00	9.00	4.75	8.75
	3.25	9.00	3.00	10.00	3.25	8.00	3.375	9.00	5.00	9.00	2.75	7.75
	3.00	10.75	1.875	8.50	3.50	8.00	1.375	4.00	4.50	13.50	5.00	7.50
	3.625	10.00	3.375	9.00	3.00	9.00	2.00	7.00	4.00	9.00	5.00	9.50
	2.50	9.50	3.75	10.50	5.25	9.00	3.75	8.50	3.50	9.25	2.75	8.75
	6.50	10.00	2.50	9.25	4.25	9.25	3.25	6.25	3.25	7.50	5.50	9.00
	3.50	9.50	2.75	8.875	5.25	8.25	2.25	8.50	3.00	9.75	5.00	10.25
	4.50	9.25	2.375	8.75	4.50	9.00	3.25	7.25	4.00	9.75	4.00	7.50
	4.50	8.25	3.00	8.00	3.50	9.00	2.00	6.25	3.25	9.00	6.25	10.25
	3.25	8.50	5.125	9.50	4.125	7.125	3.625	8.00	3.75	10.00	4.00	9.50
	2.25	8.875	4.50	10.00	4.125	9.125	2.00	7.125	3.50	8.50	3.00	8.00
	5.00	10.00	5.00	9.75	3.25	9.00	4.75	7.125	4.75	8.00	9.00	9.75
	4.25	9.75	2.75	8.25	5.25	8.875	2.25	7.00	5.00	10.00	5.75	10.00
	3.50	6.25	4.50	10.00	2.50	7.25	5.25	8.50	3.25	8.25	5.00	9.00
	3.50	8.00	3.25	9.375	2.25	8.00	4.25	6.125	4.00	9.50	3.75	8.25
	3.00	9.75	4.00	8.75	3.50	4.125	2.375	6.75	5.00	8.75	3.75	9.00
	4.00	9.375	3.00	7.75	2.75	8.875	2.00	3.875	5.25	8.55	4.50	11.00
	2.50	6.50	3.25	8.00	2.00	7.50	4.25	8.00	5.25	8.75	3.50	8.00
	1.375	7.375	3.00	9.00	3.25	8.125	2.125	7.00	4.00	9.00	5.00	8.00
Totals	82.50	218.250	88.625	223.375	87.50	212.50	71.50	174.375	102.25	223.50	115.00	292.75

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	6.50	100.325	10.75	53.75	5.25	81.031	9.25	46.25	6.25	96.465	11.00	55.00
Lowest	1.375	21.222	6.00	30.00	1.375	21.222	3.875	19.375	2.75	42.444	7.50	37.50
Average	3.423	52.833	8.853	44.165	3.18	49.182	7.738	38.69	4.35	67.140	8.83	44.65
Tests above average	22		32		27		28		24		27	
Tests below average	28		18		23		22		26		23	

RAMS.

Catalogue number of samples	882.				883.				884.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	4.50	7.00	5.00	7.75	5.00	9.75	5.75	9.00	3.375	7.00	3.25	8.25
	5.50	6.75	3.25	7.25	6.00	9.75	5.75	8.00	5.25	6.25	2.50	2.00
	6.00	10.00	5.50	9.00	4.00	10.00	3.75	9.00	6.00	9.00	3.25	7.75
	5.50	10.00	6.125	9.75	3.50	6.75	6.75	9.00	8.50	7.00	5.00	7.50
	3.00	9.00	4.75	9.25	6.00	9.75	5.50	7.00	3.25	6.00	3.50	9.00
	4.00	8.75	4.375	8.25	6.50	5.00	9.50	9.00	4.00	8.00	4.75	6.75
	3.25	8.75	6.25	9.75	5.00	10.00	4.00	8.00	3.50	8.75	3.50	8.125
	5.50	8.75	5.75	7.00	3.00	8.00	7.00	8.00	6.625	8.00	4.00	9.00
	4.75	10.00	4.75	8.125	4.00	5.75	4.00	8.00	10.00	9.00	3.75	7.875
	6.50	10.25	7.00	10.00	4.00	9.75	4.00	8.00	4.50	8.25	5.50	8.25
	0.50	9.00	6.00	7.75	5.00	8.75	4.75	5.25	2.75	5.00	5.625	5.00
	4.00	8.25	3.75	6.875	5.25	9.00	5.00	7.75	5.75	8.125	3.50	6.00
	4.00	9.25	6.25	10.25	5.00	9.50	4.00	8.50	4.75	8.50	2.625	8.00
	4.25	10.75	5.75	8.25	4.00	7.50	4.00	6.50	3.375	9.00	5.25	7.00
	3.25	8.00	7.50	8.00	4.00	9.50	5.75	9.00	2.50	3.00	7.00	9.00
	4.50	9.75	8.75	9.00	5.00	9.75	4.00	9.50	3.00	7.25	3.125	8.875
	5.625	9.75	5.25	8.50	6.00	8.50	5.00	9.25	2.875	7.125	3.75	4.875
	6.375	10.25	6.50	7.25	4.00	9.75	2.75	5.75	11.50	9.875	7.75	10.00
	5.75	8.50	5.00	8.25	7.00	7.00	4.25	9.75	4.25	8.00	4.50	4.25
	6.25	10.00	6.00	7.00	4.25	9.00	7.00	7.00	2.75	6.75	5.00	9.00
	6.625	7.75	6.625	9.75	6.25	9.00	3.50	8.50	3.875	7.00	3.50	7.00
	5.50	9.00	3.75	9.00	4.75	9.75	4.00	10.00	3.625	8.00	4.375	9.75
	4.875	8.875	6.25	6.00	3.25	8.00	3.75	8.50	2.525	8.125	3.875	9.875
	5.25	9.25	5.75	6.875	3.50	7.75	5.00	7.00	8.75	9.875	2.25	5.00
	5.00	9.00	4.00	10.00	7.00	6.00	4.25	10.25	4.75	6.00	3.50	8.00
Totals	126.25	226.620	139.875	210.375	124.25	211.25	123.00	204.50	122.125	188.375	107.625	189.125

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	8.75	135.052	10.75	53.75	9.50	146.62	10.25	51.25	11.50	177.498	10.00	50.00
Lowest	3.00	46.304	6.25	31.25	2.75	42.444	5.00	25.00	2.25	34.727	2.00	10.00
Average	5.323	82.178	8.73	43.75	4.93	76.092	8.32	41.00	4.585	70.923	7.56	37.80
Tests above average	27		27		28		28		18		30	
Tests below average	23		23		24		22		32		20	

TABLE VII (B).—*Measurements of strain and stretch of wools from Herr Steiger, &c.*—Continued.

Catalogue number of samples..	RAMS.												EWES.			
	885.				886.				887.				878.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	6.25	9.00	5.00	10.00	6.25	9.75	3.75	9.75	3.50	8.875	2.50	7.00	3.50	9.00	3.25	11.50
	3.50	9.25	2.25	9.00	5.25	9.75	7.25	10.25	4.75	8.00	4.50	7.75	2.25	8.00	3.25	10.00
	7.25	9.25	3.75	10.75	6.50	10.50	5.50	9.75	4.00	8.50	5.25	10.00	3.25	9.00	7.00	12.00
	2.50	7.25	6.00	9.00	4.75	9.50	3.50	10.25	3.75	8.00	5.00	10.00	3.50	7.25	4.00	11.00
	4.50	9.50	3.00	9.00	4.00	10.00	5.25	9.00	4.375	8.75	4.50	10.00	3.25	10.00	4.00	7.50
	4.50	9.75	5.50	8.25	3.50	7.50	3.50	7.50	4.25	9.125	4.50	10.00	3.50	9.75	3.50	11.00
	7.50	9.75	7.625	11.00	4.00	10.00	4.00	10.25	2.50	8.00	3.25	9.00	5.25	10.75	3.25	9.75
	2.75	8.00	7.25	11.00	5.00	8.00	4.25	9.75	4.25	8.25	8.00	11.75	3.50	10.25	4.25	10.00
	3.25	6.75	7.00	11.00	4.00	9.75	4.00	9.00	3.25	8.00	4.50	10.00	4.25	11.00	3.25	9.50
	3.75	8.125	4.25	7.25	4.00	8.00	5.25	10.00	2.50	8.00	5.50	5.00	5.75	12.00	3.75	10.25
	7.25	9.00	7.375	8.875	4.00	9.00	3.75	9.25	4.25	9.00	6.50	10.25	4.25	11.50	3.50	11.00
	5.00	8.875	8.25	9.25	8.25	10.00	3.00	10.25	4.75	9.00	3.25	10.00	3.25	10.25	4.50	10.25
	9.00	8.875	4.25	9.75	4.75	11.00	3.75	10.00	2.00	4.875	4.00	10.00	2.00	11.25	3.50	11.00
	9.375	10.00	6.50	9.875	3.50	9.00	4.00	10.00	2.625	7.00	4.75	9.25	4.00	7.00	3.50	9.75
	6.00	8.00	7.75	10.50	3.00	8.75	3.25	7.00	2.50	9.00	3.25	9.50	5.00	11.00	3.00	10.00
	4.00	9.25	7.25	9.00	5.00	11.00	6.00	11.00	3.25	8.875	6.00	10.00	4.25	10.25	3.50	10.00
	6.25	8.25	4.50	8.25	3.50	10.50	3.00	10.50	4.25	11.00	5.50	9.75	3.75	10.75	3.75	8.00
	6.375	9.75	4.50	9.00	9.25	10.00	3.00	9.00	5.625	9.00	5.00	11.00	4.25	10.25	5.75	10.50
	6.375	8.00	6.375	9.50	6.00	9.75	3.75	9.75	1.875	6.875	4.00	10.00	4.25	11.00	5.75	11.00
	5.25	8.50	4.25	8.75	3.00	9.75	2.75	8.50	2.25	7.00	3.00	10.00	5.00	11.00	3.25	9.50
	4.25	10.50	4.50	9.50	3.00	8.50	4.25	10.00	2.50	6.25	6.75	9.50	3.00	8.50	3.00	7.50
	5.50	10.50	4.75	11.25	5.25	10.00	4.75	10.00	2.25	6.875	5.00	11.00	5.25	10.25	5.25	10.00
	4.50	8.00	6.25	10.50	6.00	10.25	3.50	10.00	3.375	7.125	2.50	9.75	4.25	9.00	3.00	9.75
	6.50	10.25	3.00	10.00	6.00	9.25	3.25	10.25	3.00	9.125	3.00	6.75	5.00	11.00	4.00	8.75
	3.50	10.25	3.25	10.75	5.25	9.00	4.75	11.50	3.50	8.00	3.75	11.00	3.00	10.00	3.00	10.00
Totals	134.875	224.625	134.375	241.50	123.00	238.50	103.00	242.50	85.125	202.50	113.75	238.25	98.50	248.00	97.75	249.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	9.375	144.699	11.25	56.25	9.25	142.769	11.50	57.50	6.75	104.183	11.75	58.75	7.00	108.042	12.00	60.00
Lowest	2.25	34.727	6.75	33.75	2.75	42.44	7.00	35.00	1.875	28.940	4.875	24.375	2.00	30.869	7.00	35.00
Average	5.385	83.115	9.323	46.615	4.52	69.764	9.62	48.10	3.976	61.368	3.976	19.88	3.93	60.653	9.95	49.75
Tests above average	24		23		21		33		26		30		22		32	
Tests below average	26		27		29		17		24		20		28		18	

TABLE VII (C).—*Extreme and average measurements of fineness of Negretti wools from E. W. Perry, Chicago, Ill.*

Catalogue number of samples.	Highest.		Lowest.		Average.	
	In centimillimeters.	In thousandths of an inch.	In centimillimeters.	In thousandths of an inch	In centimillimeters.	In thousandths of an inch.
GERMAN WOOLS.						
400	3.00	1.1811	1.25	0.4921	1.835	0.7224
401	3.00	1.1811	1.125	0.4429	1.637	0.6444
402	2.375	0.9350	1.25	0.4921	1.69	0.6653
403	3.125	1.2303	1.25	0.4921	2.02	0.7952
404	2.00	0.7874	1.00	0.3937	1.49	0.5866
405	2.75	1.0826	1.00	0.3937	1.74	0.6850
406	2.375	0.9350	1.00	0.3937	1.67	0.6574
407	3.00	1.1811	0.875	0.3445	1.73	0.6811
408	3.00	1.1811	1.00	0.3937	1.97	0.7755
409	2.375	0.9350	1.00	0.3937	1.67	0.6574
410	3.25	1.2795	1.125	0.4429	1.99	0.7830
411	2.375	0.9350	1.00	0.3937	1.68	0.6614
412	3.25	1.2795	1.375	0.5413	1.82	0.7165
413	2.50	0.9842	1.00	0.3937	1.74	0.6850
414	2.75	1.0826	0.875	0.3445	1.54	0.6062
415	2.75	1.0826	1.00	0.3937	1.68	0.6614
416	2.50	0.9842	1.00	0.3937	1.644	0.6433
417	2.50	0.9842	1.00	0.3937	1.596	0.6283
418	2.375	0.9350	1.25	0.4921	1.717	0.6759
419	2.50	0.9842	1.00	0.3937	1.837	0.7230
420	3.00	1.1811	1.375	0.5413	1.796	0.7070
421	2.50	0.9842	1.00	0.3937	1.646	0.6086
422	2.75	1.0826	1.25	0.4921	1.972	0.7763
Average	2.695	1.0610	1.087	0.4279	1.785	0.6830

Extreme and average measurements of fineness of wools from Herr E. Steiger, Leutewitz, near Meissen, Germany.

RAMS.						
879	2.375	0.9350	1.00	0.3937	1.755	0.6909
880	2.875	1.1318	1.125	0.4429	1.803	0.7106
881	2.75	1.0826	1.25	0.4921	1.772	0.6976
882	3.00	1.1811	1.50	0.5905	1.978	0.7767
883	3.375	1.3287	1.00	0.3937	1.865	0.7342
884	3.00	1.1811	1.25	0.4921	1.952	0.7685
885	2.875	1.1318	1.25	0.4921	1.863	0.7334
886	2.75	1.0826	1.375	0.5413	1.904	0.7496
887	2.625	1.0334	1.125	0.4429	1.802	0.7094
Average	2.847	1.1208	1.208	0.4755	1.854	0.7299
EWE.						
878	2.50	0.9842	1.125	0.4429	1.657	0.6523

TABLE VII (D).—*Extreme and average measurements of strain and stretch of Negretti wools from E. W. Perry, of Chicago, Ill.*

Catalogue number of samples.	Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
GERMAN WOOLS.	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per cent.*	*mm.*	*per cent.*	*mm.*	*per cent.*
400	7.25	111.90	2.00	30.87	4.18	64.53	7.50	37.50	1.00	5.00	3.62	18.10
401	5.50	84.89	1.25	19.29	3.37	52.01	7.75	38.75	1.25	6.25	4.89	24.45
402	6.25	96.47	2.00	30.87	3.68	56.80	9.25	46.25	1.25	6.25	5.99	29.95
403	7.25	111.90	2.00	30.87	4.76	73.47	8.00	40.00	2.25	11.25	5.14	25.70
404	7.00	108.04	1.25	19.29	3.40	52.48	8.00	40.00	1.00	5.00	3.945	19.725
405	7.75	119.617	1.50	23.153	4.21	64.975	7.75	38.75	0.75	3.75	4.11	20.55
406	7.25	111.90	2.25	34.73	4.26	65.75	8.50	42.50	1.00	5.00	4.39	21.95
407	7.00	108.042	1.50	23.153	3.51	54.176	7.25	36.25	1.50	5.00	4.47	22.35
408	6.75	104.183	2.25	34.73	4.38	67.60	7.25	36.25	1.25	6.25	3.60	18.00
409	5.75	88.75	1.25	19.29	3.05	47.08	7.50	37.50	1.00	5.00	4.03	20.15
410	5.50	84.89	1.75	27.01	3.34	51.55	9.75	48.75	1.00	5.00	3.92	19.60
411	7.75	119.617	2.00	30.87	3.74	57.73	6.25	31.25	1.00	5.00	3.23	16.15
412	6.00	92.608	1.75	27.01	3.875	59.89	7.00	3.500	1.25	6.25	4.725	23.62
413	6.00	92.608	1.75	27.01	3.71	57.262	7.25	36.25	1.25	6.25	3.91	19.55
414	8.75	135.052	1.25	19.29	3.57	55.10	7.50	37.50	1.00	5.00	4.73	23.65
415	7.50	115.76	2.00	30.87	3.90	60.19	7.25	36.25	1.00	5.00	4.05	20.25
416	7.00	108.042	1.00	15.435	3.37	52.014	6.00	30.00	1.00	5.000	2.96	14.80
417	5.75	88.75	2.00	30.87	3.17	48.93	8.50	42.50	2.25	11.25	5.25	26.25
418	7.00	108.042	2.00	30.87	3.76	58.34	6.50	32.00	1.00	5.00	3.75	18.75
419	5.625	86.819	2.00	30.87	3.40	52.48	7.75	38.75	1.75	8.75	4.05	20.25
420	7.50	115.76	2.00	30.87	3.88	59.89	8.75	43.75	4.25	21.25	6.50	32.50
421	5.50	84.89	2.00	30.87	4.11	63.44	7.00	35.00	2.25	11.25	4.84	24.20
422	7.50	115.76	2.25	34.73	4.14	63.90	7.75	38.75	1.25	6.25	5.13	25.65
General average	6.745	104.106	1.783	27.519	3.91	60.35	7.65	38.25	1.41	07.05	4.40	22.00

Extreme and average measurement of strain and stretch of wools from Herr E. Steiger, of Leutewitz, near Meissen, Germany.

RAMS.												
879	6.50	100.325	1.375	21.22	3.423	52.83	10.75	53.75	6.00	30.00	8.833	44.165
880	5.25	81.03	1.375	21.22	3.18	49.18	9.25	46.25	3.875	19.375	7.738	38.69
881	6.25	96.47	2.75	42.44	4.35	67.14	11.00	55.00	7.50	37.50	8.93	44.65
882	8.75	135.05	3.00	46.30	5.323	82.16	10.75	53.75	6.25	31.25	8.75	43.75
883	9.50	146.62	2.75	42.44	4.93	76.09	10.25	51.25	5.00	25.00	8.32	41.60
884	11.50	177.50	2.25	34.73	4.595	70.92	10.00	50.00	2.00	10.00	7.56	37.80
885	9.375	144.70	2.25	34.727	5.385	83.12	11.25	56.25	6.75	33.75	9.323	46.615
886	9.25	142.77	2.75	42.44	4.52	69.76	11.50	57.50	7.00	35.00	9.62	48.10
887	6.75	104.18	1.875	28.94	3.976	61.37	11.75	58.75	4.875	24.375	3.976	19.88
Average	7.014	108.258	2.263	34.928	4.409	68.049	10.72	53.60	5.47	27.35	8.117	40.58
EWE.												
878	7.00	108.04	2.00	30.87	3.93	60.66	12.00	60.00	7.00	35.00	9.95	49.75

TABLE VIII.—*General results of all measurements.*

Catalogue number of samples.	Crimp per inch.	Fineness.		Strain.		Stretch.		$\frac{D^2 \times S}{D^2}$	$18100\frac{S}{D^2}=R$	$E=\frac{R}{P}$
		Centimillimeters.	Thousandths of an inch.	Grams.	Grains.	Millimeters.	Per cents.			
Negretti wools from E. W. Perry, Chicago, Ill.:								*grams.*		
400	29	1.895	0.7224	4.18	64.53	3.62	18.10	19.892	22,418	124,117
401	26	1.697	0.6444	3.37	52.01	4.89	24.45	20.121	22,772	93,137
402	26	1.69	0.6653	3.68	56.80	5.99	29.95	20.615	23,228	77,923
403	30	2.02	0.7952	4.76	73.47	5.14	25.70	18.695	20,639	80,307
404	26	1.49	0.5866	3.40	52.48	3.945	19.725	28.134	31,838	161,367
405	25	1.74	0.6850	4.21	64.975	4.11	20.55	22.249	25,183	122,543
406	30	1.67	0.6574	4.26	65.75	4.39	21.95	24.149	27,661	126,019
407	25	1.73	0.6811	3.51	54.176	4.47	22.35	18.705	21,244	95,052
408	30	1.97	0.7755	4.38	67.60	3.60	18.00	20.440	23,440	114,568
409	22	1.67	0.6574	3.05	47.08	4.03	20.15	17.427	19,996	98,296
410	25	1.90	0.7480	3.34	51.55	3.92	19.60	14.803	16,751	85,483
411	26	1.68	0.6614	3.74	57.73	3.23	16.15	21.392	23,994	148,571
412	30	1.82	0.7165	3.875	59.89	4.725	23.62	18.717	21,187	89,778
413	34	1.74	0.6850	3.71	57.292	3.91	19.55	19.696	22,195	113,528
414	22	1.54	0.6062	3.57	55.10	4.73	23.65	24.355	27,206	115,287
415	25	1.68	0.6614	3.90	60.19	4.65	23.25	22.189	25,024	123,577
416	30	1.634	0.6433	3.37	52.014	2.96	14.80	20.735	22,863	154,476
417	26	1.526	0.6283	3.17	48.93	5.25	26.25	19.912	22,534	85,845
418	26	1.717	0.6759	3.76	58.34	3.75	18.75	20.456	23,059	123,201
419	22	1.837	0.7230	3.40	52.48	4.05	20.25	16.120	18,245	90,098
420	25	1.796	0.7070	3.88	59.89	6.50	32.50	19.246	21,787	67,098
421	26	1.546	0.6086	4.11	63.44	4.84	24.20	20.549	23,247	96,863
422	20	1.972	0.7763	4.14	63.90	5.13	25.65	17.003	19,275	75,145
Average	25	1.735	0.6830	3.91	60.35	4.40	22.00	20.782	23,519	84,917
Wools from Herr E. Steiger, Leutewitz, near Meissen, Germany:										
Rams.										
879	26	1.755	0.6900	3.423	52.83	8.833	44.165	28.182	31,894	72,209
880	25	1.805	0.7106	3.18	49.18	7.738	38.69	15.617	17,679	45,694
881	22	1.772	0.6976	4.35	67.14	8.93	44.65	22.166	25,092	56,198
882	25	1.973	0.7767	5.323	82.16	8.75	43.75	21.878	24,200	55,315
883	25	1.865	0.7342	4.93	76.09	8.32	41.60	22.678	25,669	61,706
884	25	1.952	0.7685	4.595	70.92	7.56	37.80	19.293	21,844	57,788
885	22	1.863	0.7334	8.385	83.12	9.323	46.615	36.654	41,481	88,977
886	22	1.904	0.7496	4.52	69.76	9.62	48.10	13.949	22,579	46,943
887	22	1.802	0.7094	3.976	61.37	3.976	19.88	19.591	22,183	111,587
Average	23.7	1.854	0.7299	4.838	68.05	8.117	40.58	20.523	23,225	57,232
Ewe.										
878		1.657	0.6523	3.93	60.66	9.95	49.75	22.902	25,918	52,098

CONCLUSIONS.

(1) In the Negretti wools there appears to be a decrease of diameter of fiber from the skin outward.

(2) This variation is quite regular, but may be as great as 20 per cent. of the entire diameter.

(3) The larger number of measurements of fineness appear to be below the average.

(4) The Saxony wools appear to be finest at about the middle of their length, the variation being about the same as that above stated.

(5) In the Saxony wools the measurements above and below the average are about equally divided.

(6) In the Negretti wools the actual strain varies from an extreme minimum of 1 gram, 15.435 grains, to an extreme maximum of 11.50 grams, 117.49 grains.

(7) The averages of the extremes of fineness in Negretti wools vary from a maximum of 2.695 centimillimeters, $\frac{1}{94\frac{1}{2}}$ inch, to a minimum of 1.087 centimillimeters, $\frac{1}{23\frac{1}{3}\frac{1}{0}}$ inch. The averages vary from a maximum of 2.02 centimillimeters, $\frac{1}{12\frac{1}{5}\frac{1}{7}}$ inch, to a minimum of 1.546 centimillimeter, $\frac{1}{16\frac{1}{4}\frac{1}{2}}$ inch. The absolute extremes vary from a maximum of 3.25 centimillimeters, $\frac{1}{7\frac{1}{8}\frac{1}{1}}$ inch, to 0.875 centimillimeter, or $\frac{1}{29\frac{1}{0}\frac{1}{0}}$ inch.

(8) In the Saxony wools the absolute extremes of fineness range from 1 centimillimeter, $\frac{1}{25\frac{1}{4}\frac{1}{0}}$ inch, to 3.375 centimillimeters, $\frac{1}{7\frac{1}{5}\frac{1}{2}}$ inch. The average extremes from 1.208 centimillimeter, $\frac{1}{21\frac{1}{0}\frac{1}{3}}$ inch, to 2.847 centimillimeters, $\frac{1}{8\frac{1}{9}\frac{1}{2}}$ inch, while the general average is 1.847 centimillimeter, or $\frac{1}{13\frac{1}{8}\frac{1}{0}}$ inch.

(9) In the Negretti wools the extremes of strain vary from an absolute minimum of 1.783 gram, 27.59 grains, to an absolute maximum of 6.745 grams, 104 grains, with an average of 3.91 grams, or 60.35 grains. The absolute extremes of stretch vary from 5 per cent. to 40 per cent. the length tested, while the average of the extremes vary from 7 to 30 per cent. The average stretch is 22 per cent.

(10) In the Saxony wool the absolute extremes for strain are: Minimum, 1.375 grams, or 21.22 grains; maximum, 11.5 grams, or 177 grains. The averages of extremes for strain are 2.263 grams, 35 grains, to 7.014 grams, or 108 grains. In the same wools the absolute extremes of stretch vary from 10 per cent. to 58 per cent. the length tested, and the average extremes from 27 to 53 per cent. The general average for stretch is 40 per cent.

(11) The ultimate resistance for Negretti wools varies from say 15,000 pounds per square inch to 32,000 pounds per square inch, with an average of 23,519. The average moduli of elasticity vary from 67,038 to 167,367, with a general average of 84,917.

(12) The average ultimate resistance of the Saxony wools varies from 17,000 to 41,000 pounds per square inch of section, with a general average of 23,225 pounds. The average moduli of elasticity vary from 45,000 to 111,000, with a general average of 57,000.

(13) Hence it appears that the Negretti wools, both as regards fineness and ultimate strength, are more valuable than the Saxony wools.

(14) It also appears that they are, with one exception, finer than the Merino wools from the several sections of this country represented in our present investigati . . And as regards the ultimate strength, if entered in our tables of comparisons, they would occupy the third place. If the Saxony wools were likewise entered in our comparison they would occupy the seventh place.

CROSSBRED WOOLS.

FROM BAECHTEL BROTHERS, *Willits, Mendocino County, California.*

The wools represented in the following tables have been fully described in the correspondence of Messrs. Baechtel Brothers, who furnished the material. This material represented the result of nearly ten years in the labor of producing by crosses a race of animals capable of producing at the same time good fleeces of wool and good sized carcasses for the shambles. The external results and the pecuniary returns from this experiment so persistently and intelligently prosecuted are well shown in the little table presented in the correspondence already referred to. That table shows no decrease in the net return per head, and a very decided increase in the quantity of wool produced. It is to be hoped that these experiments will not be abandoned, but that they will be diligently pushed to a definite conclusion.

To exhibit any differences in the external characteristics of the fibers of the several crosses due to the influence of breeding, drawings were made of typical fibers from samples representing the pure breeds employed and the several crosses produced, respectively, and these drawings are reproduced in the following lithographed plates.

LIST OF PLATES OF CROSSBRED WOOLS FROM MATERIAL PRODUCED AND CONTRIBUTED BY MESSRS. BAECHTEL BROTHERS, WILLITS, MENDOCINO COUNTY, CALIFORNIA.

These plates were all of them made by projection from the microscope with the aid of sunlight and tracing the image secured. They may therefore be relied upon as accurate.

The plates are as follows:

I.—Projection of micrometer representing the amplification of the images presented.

II.— { No. 439. Thoroughbred Merino ram, yearling.
No. 437. Thoroughbred Merino ram, 4 years old.

III.— { No. 433. Thoroughbred Merino ewe, 4 years old.
No. 436. Thoroughbred Shropshire ram, 4 years old.

IV.— No. 426. $\frac{1}{16}$ Merino, $\frac{1}{16}$ Southdown, ram-yearling.

V.— No. 425. $\frac{1}{16}$ Merino, $\frac{1}{16}$ Southdown, ewe-yearling.

VI.— No. 427. $\frac{1}{8}$ Merino, $\frac{1}{8}$ Southdown, ram-yearling.

VII.— No. 428. $\frac{1}{8}$ Merino, $\frac{1}{8}$ Southdown, ewe-yearling.

VIII.— No. 429. $\frac{1}{8}$ Merino, $\frac{1}{8}$ Southdown, ewe, 3 years old.

IX.— No. 430. $\frac{1}{4}$ Merino, $\frac{1}{4}$ Southdown, ram, 2 years old.

X.— No. 431. $\frac{1}{4}$ Merino, $\frac{1}{4}$ Southdown, ewe, 2 years old.

XI.— No. 435. $\frac{1}{4}$ Merino, $\frac{1}{4}$ Southdown, ewe, 1 year old.

XII.— No. 432. $\frac{1}{2}$ Merino, $\frac{1}{2}$ Southdown, ram, 5 years old.

XIII.— No. 434. $\frac{1}{2}$ Merino, $\frac{1}{4}$ Shropshire, $\frac{1}{4}$ Southdown, ram, yearling.

XIV.— No. 433. $\frac{1}{2}$ Merino, $\frac{1}{4}$ Shropshire, $\frac{1}{4}$ Southdown, ewe, yearling.

PLATE I.—Projection of micrometer representing the amplification of the images in succeeding plates. $\frac{1}{10}$ and $\frac{1}{100}$ millimeter × 360.

No. 439 Thoroughbred Merino Ram. YEARLING.

No. 437 Thoroughbred Merino Ram. 4 YEARS OLD.

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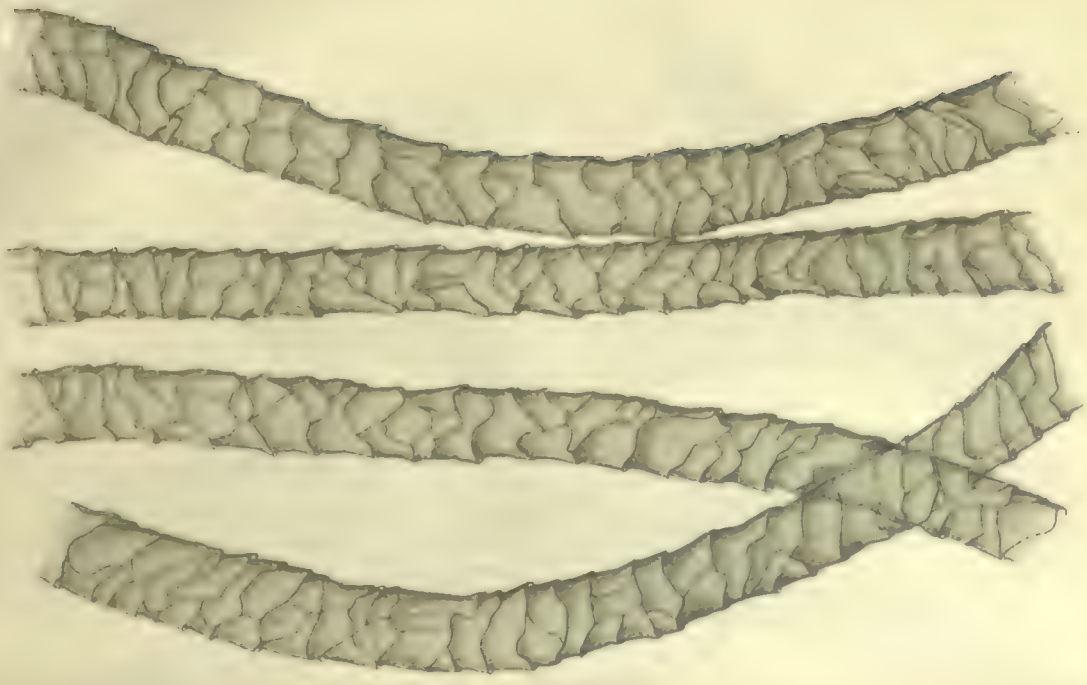

No. 48. Thoroughbred Merino Ewe.
4 YEARS OLD.

No 436. Thoroughbred Shropshire Ram
4 YEARS OLD.

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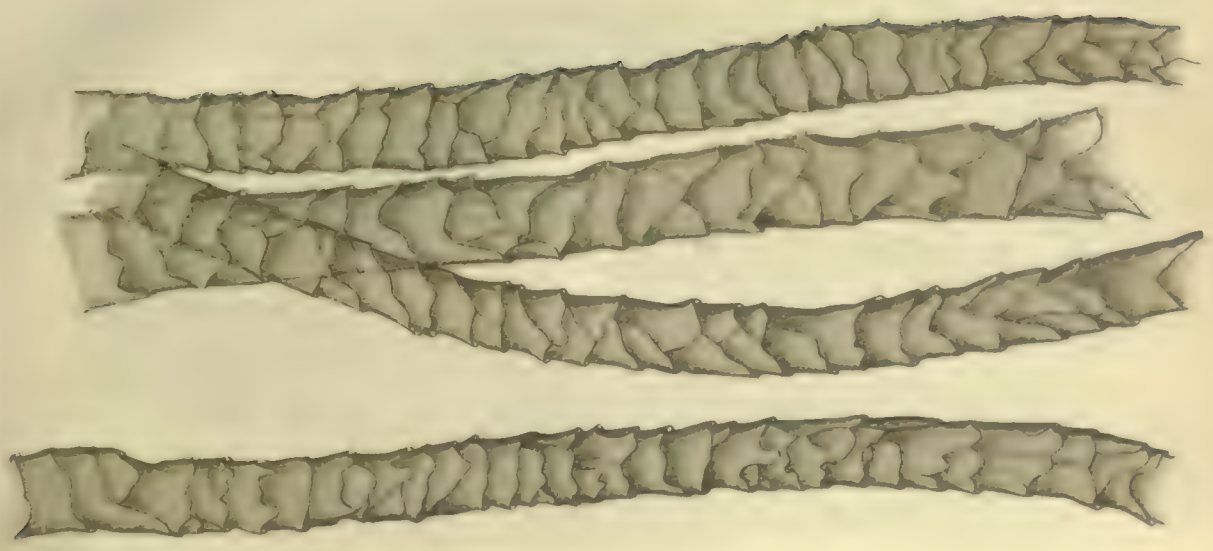
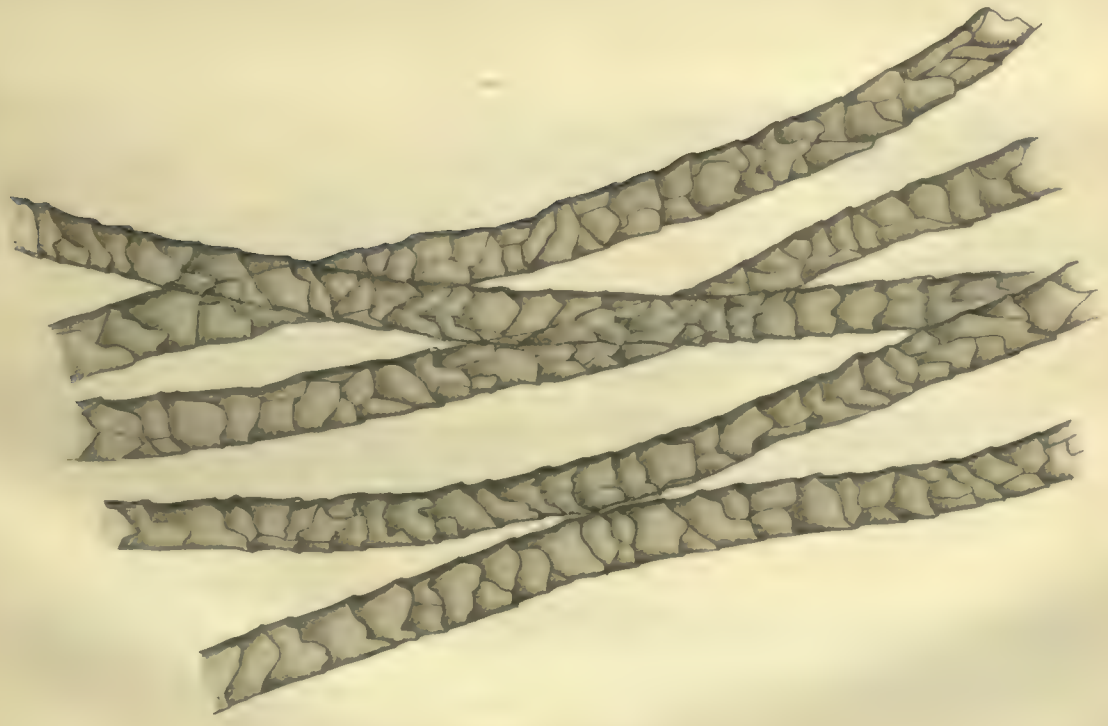
No. 426. 16-16 Merino. 1-16 Southdown.
YEARLING RAM.

No. 426. 16-16 Merino, 1-16 Southdown.
YEARLING RAM.

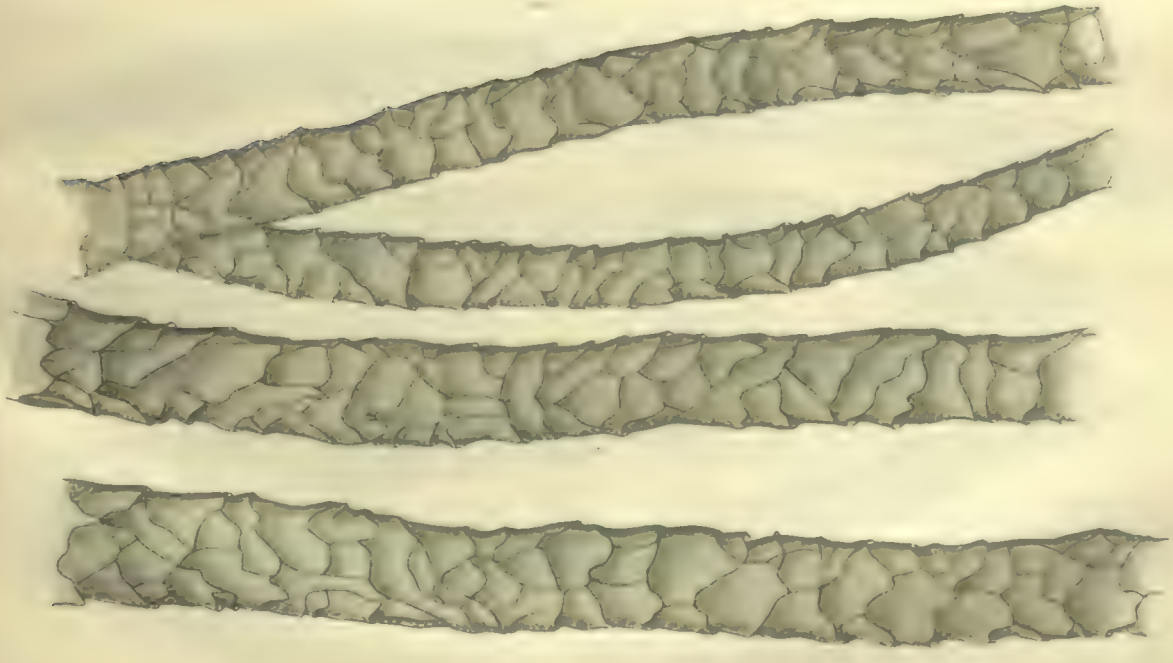


No 425. 15-16 Merino, 1-16 Southdown.
YEARLING EWE.

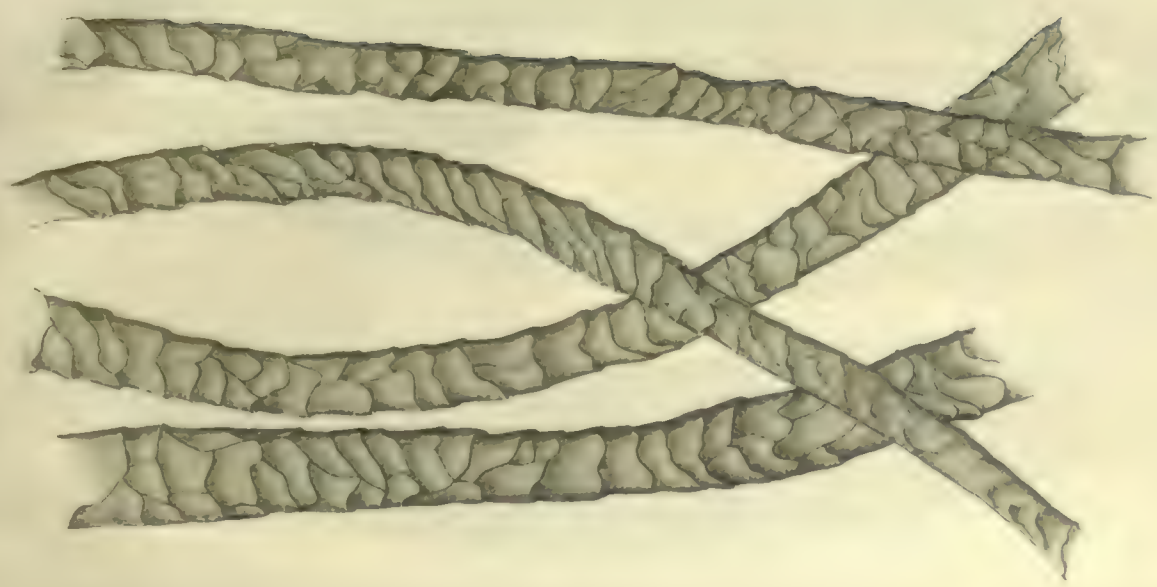


No. 425. 15-16 Merino, 1-16 Southdown.
YEARLING EWE.

No 427. 7.8 Merino, 1.8 Southdown.
YEARLING RAM.



No 427. 7.8 Merino, 1.8 Southdown.
YEARLING RAM.



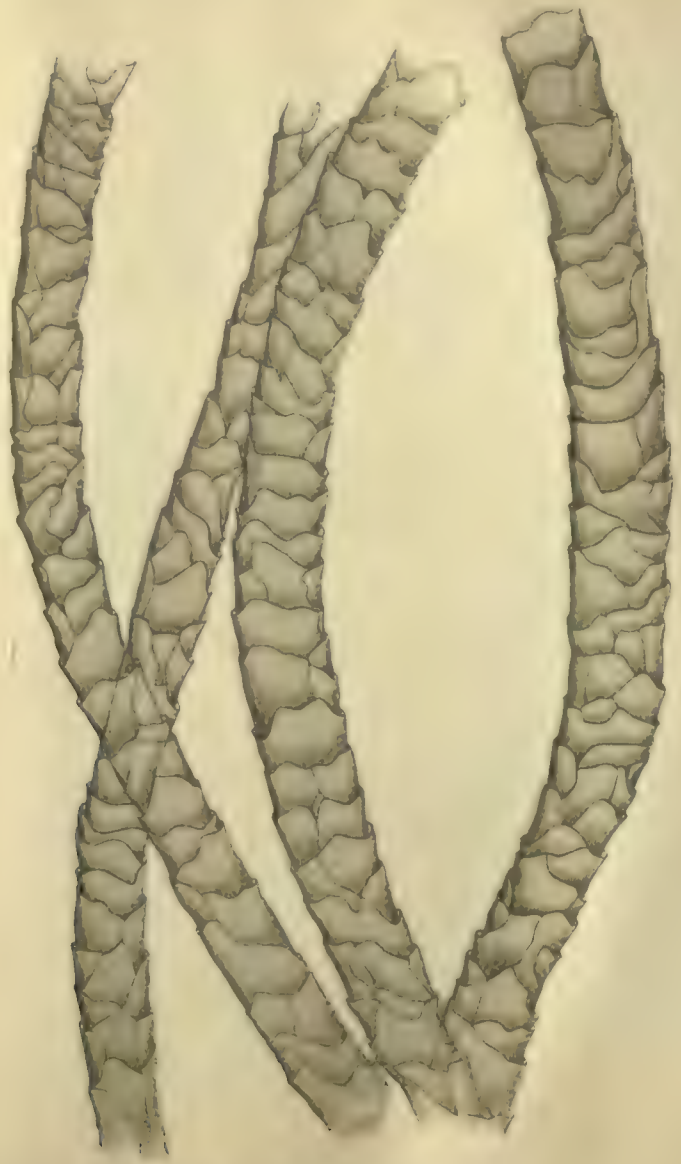
No 498. 7-8 Merino, 1-8 Southdown.
YEARLING EWE.

No. 498. 7-8 Merino, 1-8 Southdown.
YEARLING EWE.

No. 429. 7-8 Merino, 1-8 Southdown.

EWE, 3 YEARS OLD.

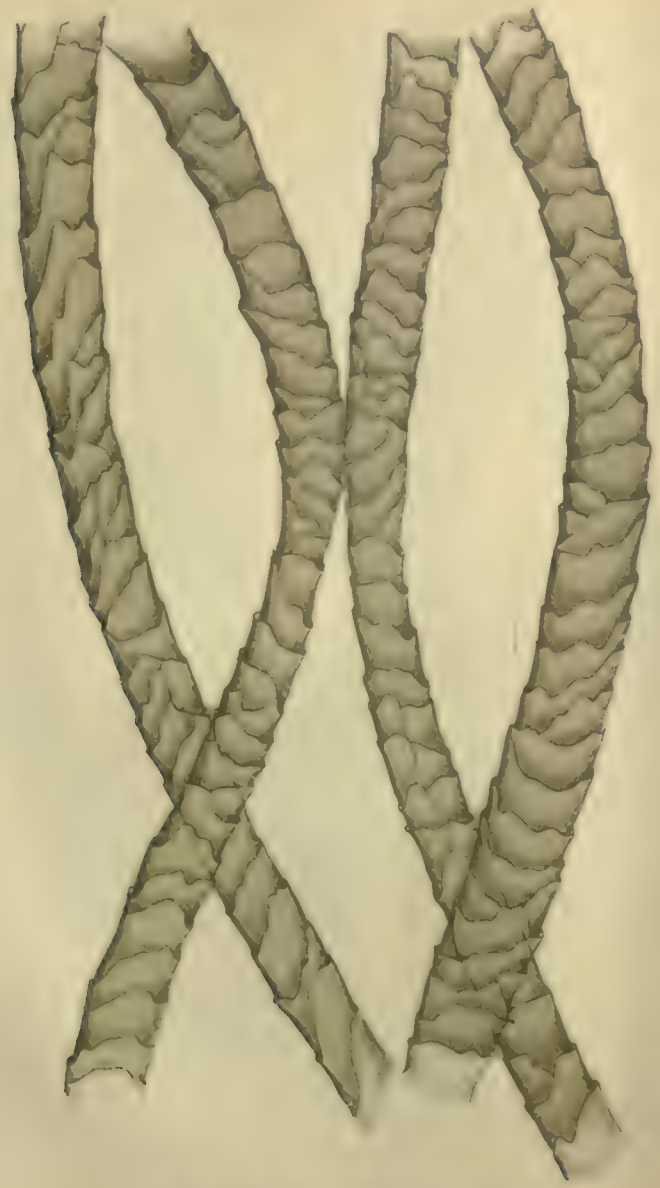
Sire, 3-4 Merino, 1-8 Southdown.



No. 429. 7-8 Merino, 1-8 Southdown.

EWE, 3 YEARS OLD.

PLATE IX.



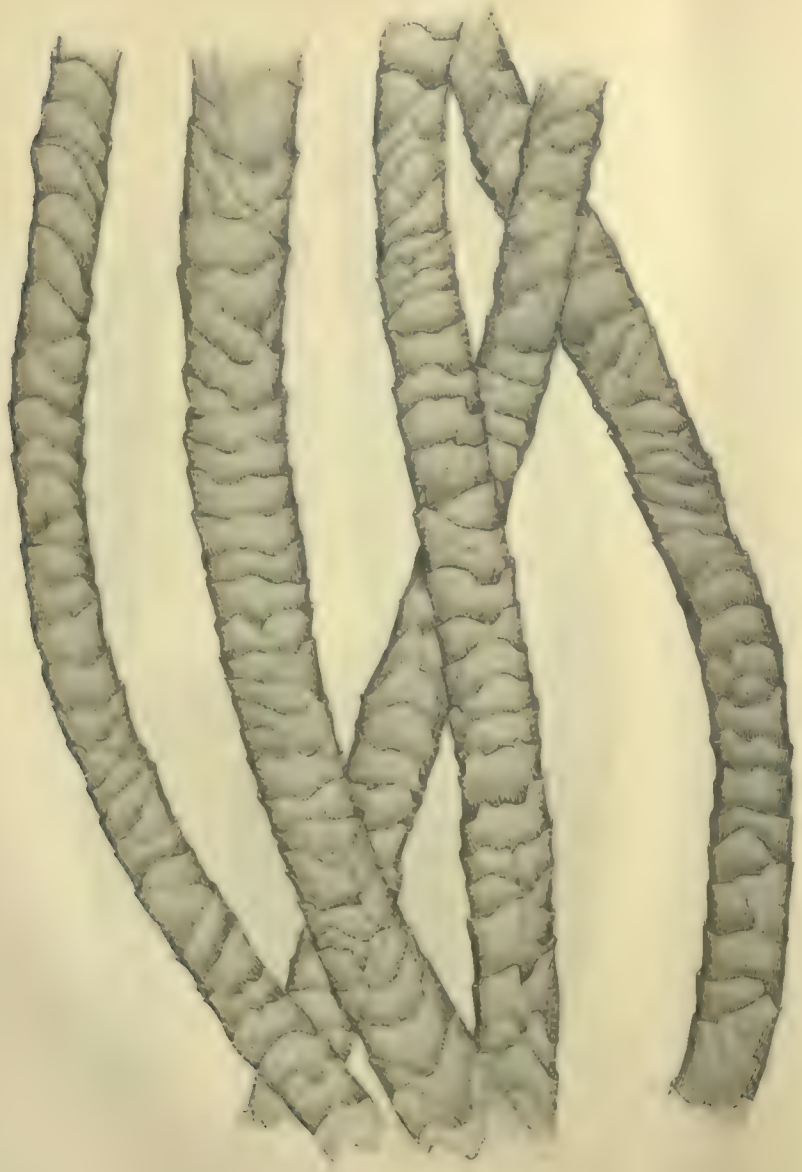
No 430. 3-4 Merino, 1-4 Southdown.

RAM, 2 YEARS OLD.

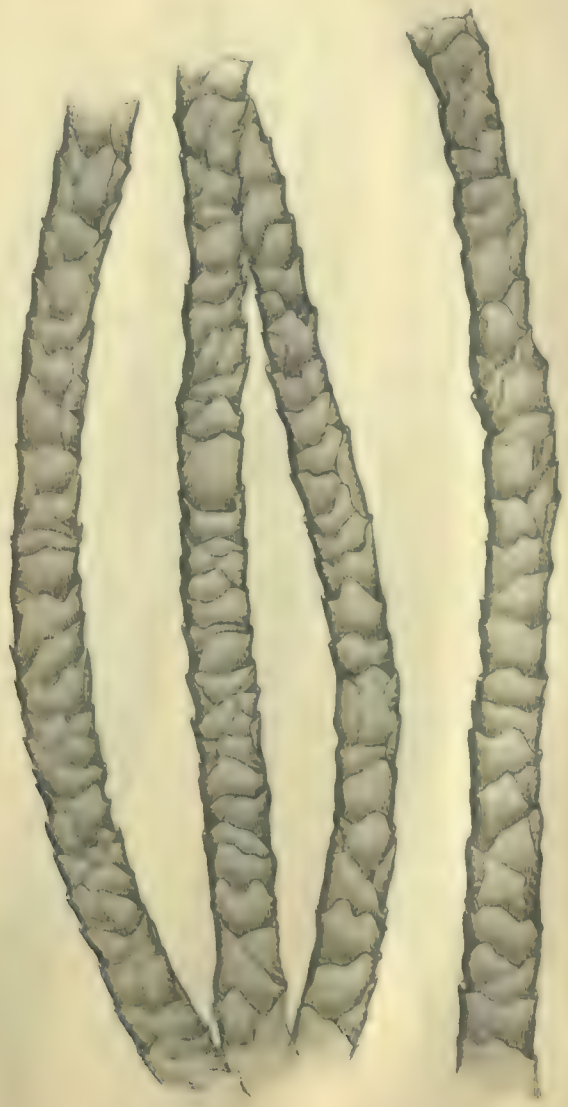
No 430. 3-4 Merino, 1-4 Southdown.

RAM, 2 YEARS OLD.

PLATE X.



No. 431. 3-4 Merino, 1-4 Southdown.
EWE, 2 YEARS OLD



No. 431. 3-4 Merino, 1-4 Southdown.
EWE, 2 YEARS OLD.

PLATE XI.

No 436. 3-4 Merino, 1-4 Southdown.

EWE, 1 YEAR OLD.

No 435. 3-4 Merino, 1-4 Southdown.

EWE, 1 YEAR OLD.

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No. 432. 1-2 Merino, 1-2 Southdown.
RAM, 5 YEARS OLD.

No. 432. 1-2 Merino, 1-2 Southdown.
RAM, 5 YEARS OLD.

No. 434. 3-8 Merino, 4-8 Shropshire, 1-8 Southdown.
RAM, 1 YEAR OLD.

No. 434. 3-8 Merino, 4-8 Shropshire, 1-8 Southdown.
RAM, 1 YEAR OLD.

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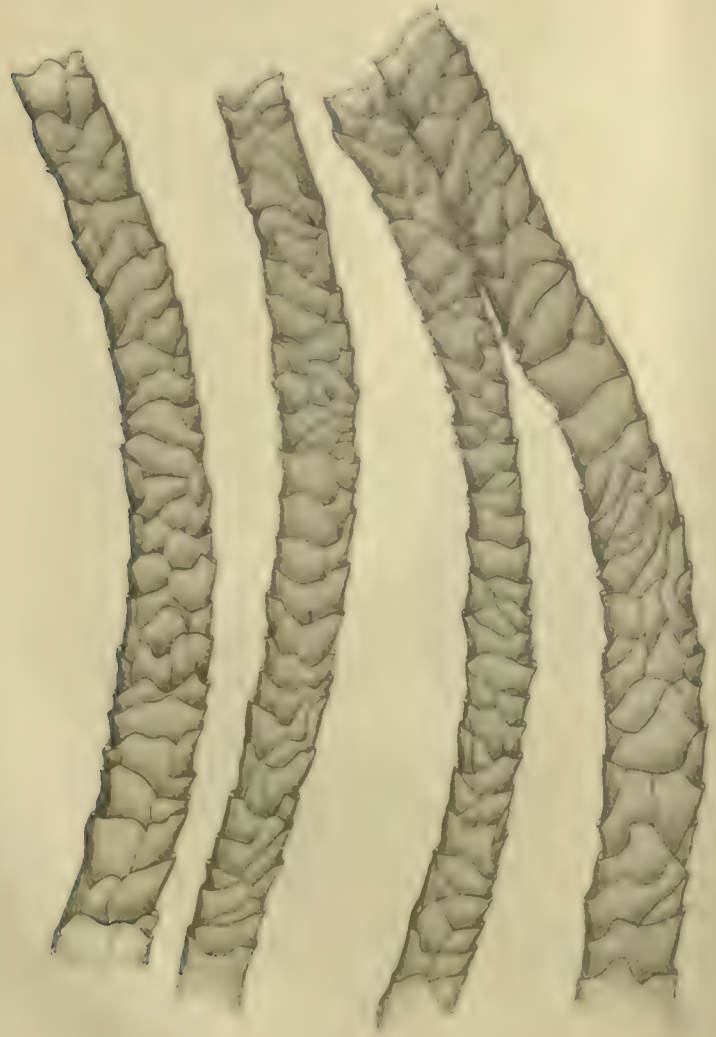
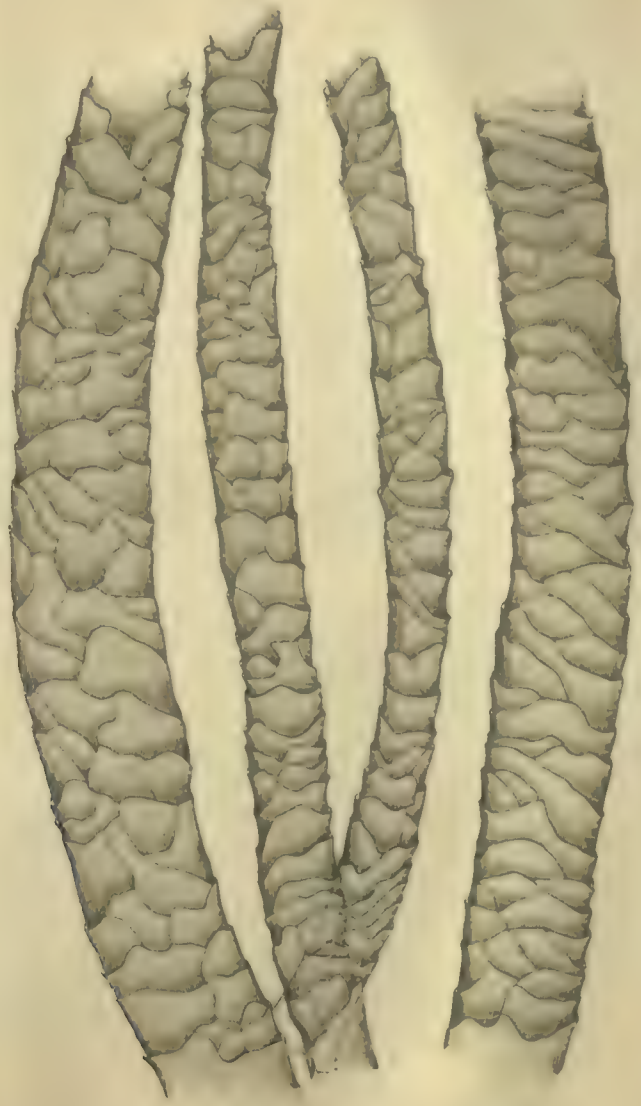


No 433 3-8 Merino, 4-8 Shropshire, 1-8 Southdown.

EWE, 1 YEAR OLD.



No 433. 3-8 Merino, 4-8 Shropshire, 1-8 Southdown.

EWE, 1 YEAR OLD.

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The following tables present the result of tests made upon crossbred wools and the data deduced from them:

TABLE IX.—*Measurements of fineness of thoroughbred Merino wools, crossbred series, from Bachtel Brothers, Willits, Mendocino County, California.*

	RAMS.																	
Catalogue number of sample....	439.			437.			438.			426.			425.			427.		
	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.	B'.	B''.	B'''.
Actual measurement in centimillimeters.	2.00	2.375	1.625	2.00	2.125	1.875	1.75	2.00	2.50	2.875	1.75	2.00	1.88	2.125	2.25	2.50	1.50	2.00
	1.75	2.00	3.50	2.625	1.75	1.625	2.375	2.125	2.00	1.50	2.00	2.00	2.00	2.375	1.50	3.00	1.50	1.50
	1.75	2.00	1.50	1.875	2.375	2.125	2.00	1.75	2.00	3.00	1.50	2.25	1.875	2.00	2.00	2.00	1.75	1.50
	3.00	2.25	1.50	3.625	2.00	1.75	2.00	2.00	2.00	1.625	1.50	2.00	1.50	1.625	1.75	3.00	1.625	2.00
	1.625	2.00	1.50	1.75	2.00	1.75	2.125	2.125	2.125	2.50	1.75	1.75	1.75	1.50	2.00	2.00	1.75	1.50
	2.00	1.625	3.00	2.00	1.50	2.00	2.375	1.75	2.50	2.625	2.00	2.00	2.375	1.625	1.75	2.25	2.00	1.50
	2.50	1.50	3.00	2.00	1.75	2.50	1.75	2.125	1.875	2.50	1.75	2.00	2.25	2.00	1.75	2.00	2.00	2.00
	2.00	2.00	2.375	2.00	1.50	2.00	2.125	1.50	1.50	2.50	1.75	1.75	2.125	1.875	1.75	2.00	1.50	1.50
	1.875	2.75	1.50	1.875	1.625	2.00	1.875	2.00	1.75	2.125	2.25	2.00	1.875	2.125	1.75	2.00	1.75	1.75
	2.00	1.75	3.00	1.625	1.50	1.625	2.00	2.00	1.50	2.00	1.50	2.50	1.75	1.875	1.75	2.00	2.00	1.75
	1.50	2.00	2.00	2.00	1.75	2.125	2.25	1.875	2.00	2.00	1.75	2.00	2.25	1.25	1.75	3.25	1.625	1.25
	3.125	2.25	2.00	2.50	1.625	1.625	1.50	1.75	2.50	2.125	2.00	2.00	2.25	1.625	1.75	2.00	1.50	1.125
	3.00	1.875	1.50	1.625	2.00	1.875	2.00	2.375	2.125	2.00	2.00	2.00	2.00	2.125	1.50	2.00	2.25	2.375
	2.00	1.875	1.75	2.375	1.50	1.625	2.00	2.50	2.125	1.875	1.75	1.50	2.375	2.00	1.75	2.00	2.00	1.375
	1.75	2.50	2.00	2.00	1.75	1.625	2.25	1.50	1.75	1.75	2.00	2.25	1.875	2.125	1.75	3.00	1.875	1.50
	2.00	2.125	1.75	2.375	1.75	2.50	2.375	2.00	2.25	1.50	2.00	1.50	1.875	2.875	1.75	2.25	1.875	1.50
	2.00	2.125	3.00	1.625	1.625	2.50	1.875	2.00	2.00	2.50	2.00	1.50	2.375	1.25	1.50	1.75	1.50	1.75
	1.75	1.50	2.00	2.00	2.00	2.00	2.375	2.50	1.375	1.75	2.00	2.00	1.25	2.125	1.50	2.75	1.75	2.00
	2.00	2.50	1.50	1.625	1.625	1.50	2.00	1.625	1.125	2.125	2.00	2.00	1.625	2.125	1.50	2.00	2.00	2.00
	2.00	2.00	2.00	2.50	1.50	2.00	1.875	2.50	1.50	2.375	1.75	2.00	2.875	1.875	2.00	1.75	2.50	2.50
	2.00	2.00	2.50	1.75	1.75	2.875	1.50	3.00	2.00	2.00	2.00	2.00	1.125	1.875	1.875	2.25	1.50	2.375
	1.875	2.25	2.00	3.00	2.00	2.00	1.50	2.25	1.75	1.75	1.50	1.50	2.125	1.875	1.625	2.25	1.875	1.50
	2.00	2.00	2.50	1.75	1.75	1.625	1.50	2.50	2.375	2.00	2.00	2.00	2.25	2.00	2.00	2.00	1.50	1.625
	1.50	2.00	2.125	1.875	2.00	2.00	1.875	2.25	2.00	2.00	2.00	1.625	2.00	1.625	2.00	2.00	2.00	2.00
	2.00	2.00	2.00	2.50	2.50	1.375	1.875	2.125	2.00	1.50	2.00	2.25	1.75	2.00	1.875	2.00	1.75	1.50
	2.00	2.00	1.625	2.00	1.625	2.00	1.50	1.875	2.00	2.00	2.00	2.00	2.125	1.50	1.625	1.75	1.625	2.00
	2.00	2.00	2.50	2.00	1.625	2.625	1.625	1.75	1.875	2.00	2.00	2.00	2.125	2.375	1.625	1.75	2.00	2.25
	2.00	2.00	2.00	1.75	2.25	1.75	2.00	2.50	2.00	2.50	2.00	2.00	0.875	2.25	1.625	2.00	1.50	1.50
	2.50	2.25	2.375	2.00	2.25	1.50	2.25	2.00	1.875	2.00	2.00	2.50	2.125	1.875	2.00	1.50	2.25	2.125
	1.50	2.25	1.875	2.00	2.00	1.375	1.75	2.00	1.50	2.00	1.75	1.50	2.375	1.50	1.625	2.25	1.50	2.00
	1.625	2.00	2.125	2.00	1.875	2.375	2.00	1.75	2.625	2.00	2.00	2.50	1.75	2.375	2.00	1.50	1.50	1.75
	1.625	2.00	1.625	2.625	3.00	1.50	1.75	2.00	2.00	1.875	2.00	2.375	2.00	1.625	1.625	2.50	2.50	3.50
	2.125	1.50	1.875	2.50	2.50	1.875	2.125	1.625	2.00	3.00	2.50	2.50	1.875	2.375	1.625	1.50	1.375	2.50
	2.00	2.00	2.125	2.375	2.375	2.00	2.00	1.75	2.125	2.25	1.50	2.00	2.125	2.25	2.00	2.00	1.50	3.00
	2.00	1.75	2.00	2.00	1.75	1.75	2.375	1.50	2.125	2.00	2.00	2.00	2.375	1.50	2.00	1.75	2.00	2.00
	2.25	2.00	2.00	2.25	2.375	2.00	3.50	2.00	2.25	1.50	2.00	2.00	1.75	1.875	2.00	2.00	1.625	1.50
	1.75	1.625	3.00	2.25	1.75	1.50	2.50	1.50	2.125	3.00	2.00	2.00	1.625	1.75	1.75	2.00	1.50	1.625
	1.875	2.125	1.50	2.50	1.875	1.875	2.625	2.00	1.50	3.00	2.00	1.75	1.625	1.875	1.50	2.00	2.00	2.00
	1.875	2.125	1.50	3.00	2.00	2.00	2.125	1.75	2.25	2.00	2.00	1.75	1.75	1.875	1.875	2.00	1.75	2.50
	1.625	1.625	1.625	1.75	2.00	2.875	2.00	2.25	2.00	1.75	2.50	2.50	1.875	2.00	1.50	2.00	1.625	2.00
	3.625	1.50	2.00	2.00	2.50	1.875	2.00	1.875	2.00	2.50	1.50	2.375	2.125	2.25	2.00	1.50	2.00	2.125
	1.75	2.00	2.25	2.00	1.875	2.00	2.75	2.50	1.875	2.00	2.50	3.00	2.375	2.375	1.50	2.50	1.625	2.50
	2.00	2.00	2.875	2.25	1.875	2.00	2.375	2.25	2.25	2.00	2.50	1.50	2.375	2.375	1.625	3.00	1.875	1.50
	1.875	2.00	1.50	2.00	2.375	1.875	3.00	2.25	2.125	2.125	2.00	1.50	1.125	1.75	1.50	2.00	1.50	1.875
	2.50	2.00	1.875	2.625	2.25	2.375	2.00	1.50	1.625	2.00	2.00	1.50	2.75	1.875	2.00	1.75	2.125	2.50
	2.00	1.625	2.00	2.00	2.00	1.50	2.375	2.00	1.875	1.75	2.00	1.50	1.75	1.75	1.75	2.00	1.75	1.75
	2.00	2.00	3.00	2.00	1.50	1.875	2.375	2.125	2.50	2.50	2.125	1.50	2.00	2.50	1.75	2.625	1.625	2.00
	1.75	1.75	2.00	2.00	1.50	2.50	2.00	2.25	1.875	1.50	2.00	2.00	1.50	1.875	1.50	2.50	2.125	2.00
	2.00	2.50	2.25	2.50	2.00	1.50	1.75	1.625	1.375	2.50	2.00	2.00	1.75	1.625	1.50	2.00	1.75	2.00
	2.125	2.375	1.25	2.125	2.00	1.75	2.375	1.75	1.625	2.50	2.00	2.00	2.875	1.50	1.50	3.00	1.75	1.50
Totals	101.50	101.125	104.875	100.50	98.375	95.50	106.25	103.375	98.00	109.125	96.25	99.50	99.375	97.75	87.375	106.375	89.25	96.375

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Highest	B'	3.625	1.4271	B'	3.625	1.4271	B'	3.50	1.3779	B'	3.00	1.1811	B'	2.875	1.1318	B'	3.25	1.2795
	B''	3.00	1.1811	B''	3.00	1.1811	B''	3.50	1.3779	B''	2.50	0.9842	B''	2.875	1.1318	B''	2.50	0.9842
	B'''	3.50	1.3779	B'''	2.875	1.1318	B'''	3.00	1.1811	B'''	3.00	1.1811	B'''	2.25	0.8858	B'''	3.50	1.3779
Highest		3.625	1.4271		3.625	1.4271		3.50	1.3779		3.00	1.1811		2.875	1.1318		3.50	1.3779
Lowest	B'	1.50	0.5905	B'	1.625	0.6397	B'	1.50	0.5905	B'	1.50	0.5905	B'	0.875	0.3447	B'	1.50	0.5905
	B''	1.50	0.5905	B''	1.50	0.5905	B''	1.50	0.5905	B''	1.50	0.5905	B''	1.25	0.4921	B''	1.375	0.5413
	B'''	1.25	0.4921	B'''	1.375	0.5413	B'''	1.125	0.4429	B'''	1.50	0.5905	B'''	1.50	0.5905	B'''	1.125	0.4429
Lowest		1.25	0.4921		1.375	0.5413		1.125	0.4429		1.50	0.5905		0.875	0.3447		1.125	0.4429
Average	B'	2.03	0.7992	B'	2.17	0.8543	B'	2.125	0.8366	B'	2.183	0.8594	B'	1.988	0.7826	B'	2.127	0.8373
	B''	2.035	0.7972	B''	1.962	0.7724	B''	2.062	0.8141	B''	1.925	0.7578	B''	1.956	0.7699	B''	1.785	0.7027
	B'''	2.098	0.8259	B'''	1.91	0.7519	B'''	1.86	0.7716	B'''	1.99	0.7834	B'''	1.748	0.6884	B'''	1.928	0.7590
Average		2.03	0.8070		2.016	0.7936		2.051	0.8074		2.033	0.8003		1.897	0.7468		1.95	0.7677
Measurements above average		46			43			63			42			63			82	
Measurements below average		104			107			87			108			87			68	

TABLE IX.—*Measurements of fineness of thoroughbred Merino wools, crossbred series, &c.*—Continued.

RAMS.

Catalogue number of sample	428.			429.			430.			828.			829.			830.		
	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.625	2.25	1.375	1.875	2.00	1.50	2.25	1.875	1.75	1.125	1.00	1.25	1.625	1.375	1.75	2.00	1.50	1.75
	2.50	2.25	1.375	2.125	1.875	1.875	2.25	1.875	2.00	1.125	1.50	1.25	1.00	2.00	2.00	1.75	1.25	1.125
	2.00	2.375	1.50	2.50	2.00	2.125	2.00	1.50	2.00	2.25	1.75	1.00	1.00	1.875	2.125	1.625	1.125	1.875
	1.75	1.875	1.50	2.50	2.00	2.00	2.00	2.00	1.50	1.50	2.25	1.75	1.125	2.00	2.50	2.25	2.00	1.50
	3.00	1.50	1.50	2.25	1.25	1.50	2.50	1.875	2.00	1.125	2.50	1.75	1.00	1.50	2.00	2.00	2.00	1.625
	2.50	1.75	1.50	2.125	1.625	1.375	2.25	2.00	2.00	2.125	2.25	2.125	1.50	2.00	1.50	2.375	2.125	1.625
	2.125	1.75	1.25	2.25	2.25	1.25	2.50	2.00	2.25	2.00	2.00	1.50	1.25	2.00	1.50	1.625	2.00	2.00
	2.50	1.625	1.375	2.00	1.75	2.00	3.25	1.875	1.50	1.50	1.875	1.50	1.00	2.125	1.375	2.00	1.375	1.75
	2.00	1.50	1.50	3.00	1.75	2.00	3.00	2.25	2.50	1.25	1.75	1.875	1.00	1.75	2.00	2.00	1.50	1.50
	2.00	2.00	1.50	2.00	2.00	2.25	3.00	2.375	2.00	1.375	1.50	1.50	1.50	2.50	1.50	2.00	1.00	2.00
	2.00	2.00	1.50	1.50	1.75	2.00	2.00	2.00	2.00	2.00	1.75	1.50	1.625	2.25	1.625	1.625	1.50	1.50
	2.00	2.375	1.375	1.75	2.00	1.50	2.00	1.75	2.25	1.50	1.625	1.50	1.50	2.00	1.625	1.50	2.00	1.75
	2.00	1.75	1.75	2.00	2.00	2.00	2.50	2.125	2.00	1.00	2.00	1.50	1.25	1.25	1.50	1.875	1.625	1.875
	2.50	1.75	1.50	2.875	2.125	1.75	2.00	1.625	2.00	1.25	2.50	1.25	1.125	1.75	1.50	1.625	1.50	1.625
	2.00	2.00	1.375	2.50	2.875	1.50	2.00	1.50	3.00	1.125	1.875	1.25	1.50	2.25	1.50	2.00	1.50	1.50
	2.00	2.00	1.50	2.50	2.00	1.50	2.00	2.75	2.00	1.50	2.75	1.50	1.75	2.125	2.00	2.50	1.25	1.625
	2.50	1.75	1.00	2.00	2.00	2.125	2.00	1.625	2.00	1.25	2.125	1.50	1.75	1.375	1.75	1.625	1.375	2.00
	2.00	2.125	1.50	2.50	2.50	1.50	1.75	2.00	2.00	1.75	1.50	1.50	1.25	1.00	1.50	1.75	1.50	1.50
	2.00	1.75	1.625	2.50	1.75	1.875	2.50	1.75	2.50	2.125	1.75	1.25	1.625	1.25	1.50	1.875	2.00	2.25
	2.00	2.00	1.25	2.125	2.50	1.25	2.00	3.50	2.00	2.00	2.00	1.25	1.50	2.00	1.50	1.375	1.00	1.875
	2.50	2.50	1.50	2.50	1.50	2.00	2.00	1.375	2.50	1.75	1.50	1.25	1.75	2.125	1.75	1.50	1.25	1.635
	1.75	2.00	1.50	2.00	2.00	1.75	2.00	1.875	2.00	1.50	2.125	1.50	1.50	2.25	1.00	1.50	2.25	2.00
	2.00	2.00	1.75	2.00	1.875	2.125	2.00	1.875	2.50	1.75	2.00	1.25	1.25	2.50	1.125	1.50	1.50	1.625
	2.00	2.00	1.375	2.00	2.50	1.50	2.50	1.875	2.375	2.625	1.50	2.00	1.625	2.125	1.25	2.25	1.75	1.875
	2.00	2.00	1.00	2.00	2.50	1.875	2.25	2.00	2.115	1.50	1.50	1.375	1.375	1.875	1.50	2.50	2.00	1.75
	2.00	2.375	1.25	2.00	2.00	1.625	2.50	3.50	2.00	1.875	1.375	1.50	1.375	1.50	1.50	1.875	2.00	1.50
	1.875	2.50	1.00	3.00	2.00	1.50	3.00	1.625	1.75	1.25	1.50	1.875	1.00	2.00	1.25	2.00	1.75	1.50
	2.00	2.00	1.00	3.00	1.75	2.00	2.00	2.25	2.00	1.25	1.25	1.625	1.625	2.00	1.375	2.00	2.00	1.25
	2.00	2.125	1.375	2.00	1.50	2.00	2.00	1.75	2.125	1.50	1.00	1.625	1.50	1.50	2.25	1.625	1.00	1.375
	2.00	1.75	1.50	2.50	1.75	2.00	2.00	2.00	2.00	2.00	1.625	1.375	1.125	1.875	1.75	1.375	1.75	1.50
	2.00	2.00	1.50	2.25	2.50	2.25	3.00	2.25	2.00	1.50	2.00	1.25	1.00	1.75	1.25	3.00	2.00	1.50
	2.00	2.00	1.50	1.875	1.875	1.75	3.00	1.75	2.50	2.375	1.75	1.75	1.00	2.00	1.50	2.375	1.50	1.875
	2.00	2.00	1.50	2.25	1.625	2.00	2.50	2.00	2.00	1.75	2.25	1.50	1.00	1.625	1.50	1.50	1.375	1.625
	2.00	2.00	1.25	2.50	3.00	1.50	2.00	2.00	2.50	1.50	2.125	1.75	1.00	1.625	2.125	1.50	1.375	1.875
	1.875	2.375	1.50	1.625	2.125	1.50	2.00	1.75	2.50	2.00	1.50	1.75	1.50	2.00	1.50	1.50	1.50	1.125
	2.00	1.50	1.25	2.50	1.875	1.50	2.00	1.75	2.25	1.50	1.50	1.375	1.50	1.50	1.50	2.375	1.625	1.50
	2.25	1.50	1.50	2.50	2.00	2.00	2.00	2.00	2.00	1.50	1.75	1.00	1.625	1.50	1.50	1.875	2.00	1.625
	2.00	2.00	1.50	1.875	2.25	1.625	3.00	2.125	2.50	1.50	2.00	1.00	1.75	2.00	2.00	1.50	1.75	2.00
	2.00	2.00	1.25	2.25	1.75	2.125	2.00	3.00	1.875	1.25	1.375	1.875	1.50	2.25	1.75	1.875	1.125	1.375
	2.00	2.00	1.375	2.50	1.875	1.75	2.00	2.25	2.00	1.00	2.375	2.00	2.00	1.375	1.50	1.50	1.50	1.50
	2.50	1.50	1.50	2.50	2.00	1.50	2.00	1.625	3.00	1.50	2.50	2.25	1.25	2.125	1.50	1.50	2.00	1.625
	2.00	2.00	1.125	2.00	1.875	2.00	2.50	1.625	2.00	2.00	1.875	1.50	1.75	2.50	1.50	1.625	1.50	2.00
	2.25	2.00	1.75	2.25	1.875	1.50	2.00	1.625	2.125	2.50	2.625	1.50	2.00	1.625	1.625	1.875	1.375	2.125
	2.00	1.625	1.50	2.125	2.00	1.75	2.50	2.375	2.00	1.125	2.25	1.50	1.875	2.00	2.00	2.125	1.25	1.875
	2.125	2.125	1.50	3.00	1.50	2.00	2.00	1.875	2.375	1.75	2.375	1.50	2.125	1.75	2.125	1.625	1.50	1.75
	1.75	1.50	1.50	2.125	2.00	2.00	2.00	1.625	1.625	1.75	1.50	2.00	2.00	1.75	1.50	1.625	1.375	1.50
	2.25	2.00	1.375	2.00	1.875	2.50	1.75	1.375	2.50	1.875	1.625	1.25	1.50	2.00	1.25	1.50	1.375	1.875
	2.25	2.00	1.375	1.75	2.25	2.00	2.25	2.00	2.00	1.50	1.375	1.25	1.25	2.25	1.75	2.375	1.50	1.625
	2.25	1.625	1.50	2.00	2.125	1.875	2.50	2.125	2.625	1.50	2.00	1.50	1.75	2.375	1.75	1.875	1.625	1.625
	1.875	2.50	1.50	1.75	2.00	1.875	3.00	2.00	2.00	1.50	2.00	1.50	2.25	1.50	2.00	2.00	1.50	1.50
Totals	105.50	97.875	70.75	111.00	100.25	90.250	114.00	99.50	107.00	80.75	92.375	75.875	72.125	94.625	82.125	93.625	79.125	83.675

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Highest	B′	3.00	1.1811	B′	3.00	1.1811	B′	3.25	1.2795	B′	2.625	1.0334	B′	2.25	0.8858	B′	3.00	1.1811
	B″	2.50	0.9842	B″	3.00	1.1811	B″	3.50	1.3779	B″	2.75	1.0826	B″	2.50	0.9842	B″	2.25	0.8858
	B‴	1.75	0.6889	B‴	2.50	0.9842	B‴	3.00	1.1811	B‴	2.25	0.8858	B‴	2.50	0.9842	B‴	2.25	0.8858
Highest		3.00	1.1811		3.00	1.1811		3.50	1.3779		2.75	1.0826		2.50	0.9842		3.00	1.1811
Lowest	B′	1.75	0.6889	B′	1.625	0.6397	B′	1.75	0.6889	B′	1.00	0.3937	B′	1.00	0.3937	B′	1.375	0.5413
	B″	1.50	0.5905	B″	1.25	0.4921	B″	1.375	0.5413	B″	1.00	0.3937	B″	1.00	0.3937	B″	1.00	0.3937
	B‴	1.00	0.3937	B‴	1.25	0.4921	B‴	1.50	0.5905	B‴	1.00	0.3937	B‴	1.00	0.3937	B‴	1.125	0.4429
Lowest		1.00	0.3937		1.25	0.4921		1.375	0.5413		1.00	0.3937		1.00	0.3937		1.00	0.3937
Average	B′	2.11	0.8307	B′	2.22	0.8740	B′	2.28	0.8976	B′	1.615	0.6358	B′	1.443	0.5681	B′	1.873	0.7374
	B″	1.958	0.7708	B″	2.005	0.7893	B″	1.99	0.7834	B″	1.847	0.7110	B″	1.892	0.7448	B″	1.582	0.6228
	B‴	1.415	0.5570	B‴	1.805	0.7106	B‴	2.14	0.8425	B‴	1.518	0.5976	B‴	1.643	0.6468	B‴	1.673	0.6594
Average		1.827	0.7192		2.01	0.7913		2.13	0.8385		1.66	0.6535		1.659	0.6531		1.709	0.6728
Measurements above average		81			19			50			63			65			54	
Measurements below average		25			101			100			87			85			96	

TABLE IX.—*Measurements of fineness of thoroughbred Merino wools, crossbred series, &c.*—Continued.

RAMS.

Catalogue number of sample	831.			832.			833.			834.			835.			836.		
	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.875	1.375	1.50	1.875	1.75	2.125	2.00	1.625	2.50	2.00	2.25	2.00	2.25	2.00	1.875	2.25	1.75	2.50
	1.75	1.25	2.00	1.875	2.00	2.00	1.625	1.75	2.75	2.00	2.00	2.25	1.625	1.75	1.50	1.875	1.875	2.00
	1.50	1.50	1.75	1.625	2.125	2.50	2.125	2.00	1.50	2.00	2.75	1.625	2.50	1.75	2.00	1.625	1.875	2.00
	1.50	1.50	2.25	2.00	2.00	2.00	1.50	2.00	1.875	1.75	2.00	2.50	2.00	2.25	2.00	2.25	1.50	1.75
	2.50	1.50	1.75	1.50	1.875	1.50	2.00	1.75	1.625	2.25	1.875	1.75	2.00	1.75	1.75	2.00	1.375	2.625
	1.50	1.50	1.75	2.125	1.75	1.50	2.25	2.50	1.875	1.875	2.00	2.00	1.625	1.50	2.625	1.50	1.375	2.00
	1.75	1.25	2.00	2.00	2.00	1.75	1.50	1.50	2.875	1.50	2.375	1.625	1.75	1.50	2.125	1.875	1.50	1.875
	1.75	1.625	1.50	3.00	2.00	1.50	1.875	1.625	2.25	1.875	2.00	2.50	1.50	2.125	1.25	1.625	2.00	2.00
	1.50	1.75	1.75	2.00	1.875	1.75	2.00	2.00	2.00	2.375	3.00	2.375	1.625	2.00	1.625	1.50	2.125	1.50
	2.00	1.50	1.00	2.50	1.75	1.50	1.875	2.125	1.625	2.00	2.00	2.125	1.75	2.25	1.875	1.375	2.00	2.00
	1.625	1.75	2.00	3.00	1.50	1.75	2.75	1.75	1.875	2.375	2.50	1.50	1.875	2.00	2.00	1.625	1.75	2.50
	1.875	1.00	2.25	2.125	1.75	1.375	2.125	2.00	1.875	1.75	2.375	2.00	1.75	2.00	2.25	2.375	1.75	2.625
	1.50	1.25	1.75	2.50	1.75	1.75	2.00	2.00	1.625	1.125	1.875	2.25	2.125	1.875	1.75	2.00	1.875	2.00
	1.50	1.50	2.25	1.875	1.50	1.50	1.875	2.50	1.50	1.625	2.00	2.25	1.875	1.75	2.125	2.50	2.125	2.50
	2.25	1.75	1.75	1.625	1.50	1.50	1.625	1.75	2.00	1.875	1.75	2.00	1.50	1.875	1.75	1.875	1.75	2.375
	1.875	1.50	1.375	1.875	1.375	1.875	2.625	1.50	1.875	1.00	2.50	1.625	1.75	1.625	1.50	1.625	1.75	1.875
	2.00	1.50	1.00	2.40	2.00	2.00	1.875	1.875	1.625	1.625	2.50	1.875	1.625	1.75	2.00	2.375	2.125	2.375
	1.875	2.00	2.25	1.875	2.125	1.625	2.50	2.75	1.875	1.875	1.875	2.50	1.625	1.75	1.75	1.50	2.25	2.00
	2.00	1.75	1.25	2.50	2.00	2.00	1.875	2.375	2.00	2.625	2.00	1.50	2.125	1.50	1.875	1.875	2.00	2.75
	1.50	1.625	1.375	2.50	1.75	2.375	2.625	1.50	1.75	1.875	1.50	2.00	2.125	1.50	1.50	2.125	1.50	2.375
	2.00	1.75	1.625	2.00	2.375	1.50	1.625	1.75	2.00	1.50	1.75	2.625	1.25	2.50	1.50	1.50	2.00	2.00
	2.00	2.00	1.875	2.00	2.25	2.00	1.75	2.00	1.625	2.00	1.75	2.25	1.875	2.00	1.50	2.00	1.875	1.875
	2.25	1.375	1.875	2.50	1.75	2.25	1.875	1.875	2.00	1.875	2.00	2.375	1.625	2.125	1.875	1.875	2.125	1.875
	1.75	1.25	1.875	1.875	1.875	1.875	2.125	1.50	1.875	2.00	2.00	2.00	1.875	2.25	1.875	2.125	2.25	2.00
	1.875	2.75	1.50	1.625	1.25	1.50	1.75	2.50	2.00	1.875	2.50	1.625	2.25	2.25	1.25	2.125	1.75	2.125
	2.00	1.50	1.625	1.875	1.75	1.50	1.875	2.00	2.00	1.625	2.25	2.00	2.375	1.75	1.625	1.875	1.875	2.50
	2.25	1.375	1.75	2.00	1.50	1.50	1.625	1.25	1.875	2.00	2.25	1.875	2.00	1.50	2.00	1.875	2.25	2.50
	1.875	1.25	1.50	2.75	1.75	2.375	1.50	1.625	1.50	2.00	2.50	2.25	1.875	2.00	1.75	1.625	2.00	1.875
	1.50	1.625	2.125	2.00	1.875	1.50	2.50	2.75	1.50	2.00	2.25	1.875	1.625	2.00	1.50	1.625	2.00	2.50
	2.00	1.375	1.75	2.125	2.50	1.875	2.50	1.375	1.75	1.50	2.50	2.00	1.50	2.00	1.50	1.75	2.125	2.75
	1.50	1.125	1.75	2.875	2.25	1.75	2.25	1.75	2.75	2.375	2.125	2.00	1.75	1.75	2.75	2.00	1.875	1.625
	1.75	1.00	1.375	2.00	2.125	1.75	1.875	1.50	1.625	2.125	2.00	2.00	1.875	2.00	2.25	2.50	2.50	2.75
	2.00	1.25	1.50	2.00	2.75	1.50	1.625	1.625	1.875	2.00	2.125	2.75	1.875	2.00	2.125	2.00	1.50	2.50
	2.00	2.00	1.625	2.00	1.375	1.375	1.50	1.375	1.75	2.00	1.00	1.875	1.75	2.25	1.50	1.625	1.50	1.50
	1.50	1.75	2.00	2.00	1.25	1.50	2.00	2.00	1.875	2.875	2.50	2.75	2.00	2.125	1.50	2.00	2.00	2.00
	1.875	1.625	2.00	1.625	1.50	1.625	2.375	2.00	1.625	1.625	2.50	1.50	2.875	1.875	2.00	1.875	2.50	2.00
	1.875	1.50	1.625	2.875	1.50	1.375	1.875	1.50	2.125	1.875	2.625	2.00	2.00	1.75	1.50	1.375	2.375	2.00
	2.375	1.50	2.00	2.50	1.75	1.50	1.50	1.75	2.75	1.50	2.75	2.625	1.875	1.50	2.50	1.625	1.75	2.00
	2.00	1.25	2.00	2.125	1.875	1.50	1.625	1.50	2.50	2.00	2.375	1.75	1.50	2.50	2.00	2.375	1.625	1.50
	2.50	1.875	1.625	2.00	2.00	2.375	3.00	1.50	2.25	2.50	2.25	2.125	1.625	2.00	1.625	2.50	1.75	2.125
	2.125	1.50	1.75	2.00	1.75	2.00	2.50	1.875	2.00	1.875	2.00	1.50	1.50	1.75	2.00	2.00	2.25	3.25
	1.625	1.625	2.00	2.00	2.125	1.125	2.00	1.50	2.125	2.375	2.25	1.50	2.125	1.50	1.875	2.625	2.375	1.875
	1.75	1.625	2.00	1.875	1.75	1.375	2.00	1.375	1.875	1.875	2.25	2.125	2.125	1.875	1.50	1.625	2.00	1.50
	1.50	1.50	1.625	2.50	1.50	1.75	1.875	1.25	1.75	1.875	2.00	1.50	1.875	2.00	2.125	2.00	2.00	2.00
	2.00	1.25	1.50	1.875	1.75	1.875	1.625	2.00	1.625	2.00	2.50	2.125	1.50	1.50	2.125	1.50	1.875	2.75
	2.125	1.25	1.75	2.50	1.875	1.50	1.875	1.625	1.75	2.125	2.50	2.00	2.125	2.25	1.875	2.00	1.625	3.50
	1.50	1.25	1.75	2.50	1.50	1.50	2.00	2.00	1.625	2.50	2.625	1.50	2.125	2.00	1.50	1.875	1.625	1.875
	1.875	1.75	1.625	2.125	1.50	1.875	3.00	2.00	1.50	1.625	2.50	1.625	1.875	1.75	1.375	1.50	2.00	2.00
	1.625	2.00	1.875	2.125	1.75	1.50	1.75	2.25	1.50	2.00	2.375	1.50	2.375	2.00	1.625	1.50	2.00	2.00
	1.875	1.50	2.125	1.875	1.375	1.625	2.125	1.75	2.125	2.125	1.75	2.50	2.00	1.875	2.25	2.00	2.25	1.875
Totals	92.625	76.125	88.500	107.00	91.50	86.125	100.125	91.625	96.000	97.00	109.125	100.375	95.25	93.625	91.50	93.125	96.625	108.750

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Highest	B′	2.50	0.9842	B′	3.00	1.1811	B′	3.00	1.1811	B′	2.625	1.0334	B′	2.875	1.1318	B′	2.625	1.0334
	B″	2.75	1.0826	B″	3.00	1.1811	B″	2.75	1.0826	B″	3.00	1.1811	B″	2.25	0.8858	B″	2.50	0.9842
	B‴	2.50	0.9842	B‴	2.50	0.9842	B‴	2.875	1.1318	B‴	2.75	1.0826	B‴	2.75	1.0826	B‴	3.50	1.3779
Highest		2.75	1.0826		3.00	1.1811		3.00	1.1811		3.00	1.1811		2.875	1.1318		3.50	1.3779
Lowest	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.00	0.3937	B′	1.50	0.5905	B′	1.375	0.5413
	B″	1.00	0.3937	B″	1.25	0.4921	B″	1.25	0.4921	B″	1.00	0.3937	B″	1.50	0.5905	B″	1.375	0.5413
	B‴	1.00	0.3937	B‴	1.125	0.4429	B‴	1.375	0.5413	B‴	1.50	0.5905	B‴	1.25	0.4921	B‴	1.00	0.5905
Lowest		1.00	0.3937		1.125	0.4429		1.25	0.4921		1.00	0.3937		1.25	0.4921		1.375	0.5413
Average	B′	1.853	0.7295	B′	2.14	0.8425	B′	2.003	0.7885	B′	1.94	0.7637	B′	1.905	0.7499	B′	1.903	0.7492
	B″	1.522	0.5992	B″	1.83	0.7204	B″	1.832	0.7212	B″	2.182	0.8590	B″	1.872	0.7370	B″	1.982	0.7606
	B‴	1.77	0.6968	B‴	1.723	0.6783	B‴	1.920	0.7559	B‴	2.008	0.7905	B‴	1.83	0.7204	B‴	2.175	0.8562
Average		1.715	0.6751		1.897	0.7468		1.918	0.7551		2.043	0.8043		1.869	0.7358		2.003	0.7885
Measurements above average		78			63			63			62			65			49	
Measurements below average		72			87			87			88			65			101	

TABLE IX.—*Measurements of fineness of thoroughbred Merino wools, crossbred series, &c.*—Continued.

RAMS.

Catalogue number of sample...	837.			838.			839.			840.			841.			842.		
	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters,	1.50	2.50	2.00	1.625	1.50	1.50	3.125	2.375	2.50	1.625	2.50	1.00	2.00	2.50	1.75	1.50	3.00	1.50
	2.00	2.00	2.125	1.75	1.625	1.50	3.00	2.00	2.50	1.625	2.375	1.50	2.25	2.375	0.875	2.00	1.50	1.50
	2.00	2.25	1.75	1.875	1.50	1.375	2.00	2.50	1.625	1.50	2.00	1.125	1.50	2.00	1.00	1.50	1.50	1.50
	1.75	1.875	1.75	1.50	1.50	1.625	2.125	2.375	2.00	1.50	1.625	1.25	1.625	2.25	1.375	2.00	1.75	2.00
	2.50	2.50	1.75	1.50	1.75	1.50	2.50	2.00	1.625	1.50	2.25	1.625	2.00	2.25	1.50	2.00	1.75	1.625
	2.00	2.25	1.625	2.00	1.625	1.625	2.50	2.50	1.875	2.00	1.875	1.00	2.50	2.00	1.125	2.00	1.375	2.00
	1.75	2.625	1.625	2.50	1.50	2.126	3.00	2.25	2.50	1.50	2.25	1.50	2.125	2.25	1.375	1.50	2.00	2.00
	2.50	2.625	1.625	1.50	1.75	1.75	3.00	2.375	2.50	1.50	1.75	1.75	2.25	2.50	1.50	2.125	2.00	2.00
	1.875	2.375	2.00	1.50	1.50	2.25	2.375	1.50	1.625	2.50	2.25	1.25	2.50	2.00	1.25	1.50	1.75	1.50
	2.25	2.50	1.625	1.50	1.375	1.50	2.00	2.25	2.50	1.625	2.125	1.875	2.25	2.00	2.00	1.375	1.375	2.00
	2.375	2.375	2.00	1.875	1.75	1.50	2.50	2.00	2.00	1.50	1.875	1.625	1.50	2.375	1.50	2.00	1.75	1.50
	2.00	1.75	2.00	1.75	1.50	2.25	3.00	1.50	1.625	2.00	3.00	1.50	2.625	2.25	2.00	1.625	2.50	1.50
	2.00	1.625	1.75	1.625	1.50	1.50	3.125	1.75	1.875	1.50	2.00	2.00	2.50	2.375	1.25	2.00	3.00	1.625
	1.625	2.50	1.875	2.00	1.50	1.50	2.00	2.25	2.00	1.50	2.50	1.50	1.50	2.50	1.375	2.00	2.00	1.875
	2.25	1.75	1.75	1.50	1.625	1.625	2.25	2.50	1.50	1.625	2.75	2.00	2.00	2.50	1.50	2.125	1.50	1.50
	1.50	2.75	2.625	1.50	2.125	1.50	2.50	2.00	2.125	1.75	2.50	1.50	1.50	2.00	2.00	2.00	1.50	1.625
	2.125	2.375	2.00	1.75	2.00	1.25	2.50	2.125	2.125	2.00	2.375	1.50	1.375	2.00	2.125	1.625	1.875	1.625
	2.125	2.50	2.00	1.75	1.75	1.75	2.375	2.50	2.50	2.00	1.75	1.875	1.625	1.75	2.25	2.125	1.50	1.50
	1.875	1.875	1.50	1.75	1.625	2.00	2.625	2.50	2.50	1.50	1.625	2.00	1.50	1.875	1.50	1.875	2.00	1.75
	2.00	2.00	1.625	2.00	1.50	1.25	3.00	2.25	1.625	1.75	2.00	1.75	2.00	2.00	1.625	2.50	2.00	1.75
	2.375	3.25	2.125	2.50	1.50	1.75	3.50	2.375	2.00	1.50	1.875	1.125	2.50	3.00	2.00	1.50	1.50	2.00
	2.00	2.375	1.75	2.625	1.50	1.50	2.00	2.25	2.00	2.00	2.50	1.875	2.50	2.00	1.50	1.625	1.50	1.50
	1.50	3.00	1.125	2.625	1.375	1.625	2.125	2.50	2.75	2.125	1.75	1.875	2.625	2.25	2.00	2.50	1.625	2.00
	2.75	2.00	2.00	2.00	1.50	2.00	2.50	2.50	1.25	1.50	1.75	1.50	1.50	2.375	2.00	2.00	2.25	1.75
	1.875	2.125	2.00	1.50	1.75	2.00	2.50	2.375	1.75	1.75	2.00	1.25	3.00	2.00	2.625	2.00	2.00	1.875
	1.875	2.50	2.25	1.50	1.50	2.00	2.00	2.25	2.00	1.50	1.875	1.625	2.00	2.00	2.00	1.25	1.75	1.50
	2.50	2.375	2.00	2.75	2.00	1.50	3.00	2.00	2.125	2.00	2.125	1.50	3.00	1.875	1.25	2.00	1.875	2.00
	1.625	2.25	2.25	2.875	2.25	2.00	2.50	2.25	2.125	1.50	2.00	1.625	2.50	3.00	1.50	1.75	2.50	1.50
	2.375	2.125	1.75	2.375	1.75	2.125	1.50	2.00	2.25	1.50	2.50	1.375	2.375	2.375	1.375	2.00	2.25	2.00
	3.125	2.75	2.00	2.00	2.00	2.125	2.00	2.50	1.625	1.375	2.50	1.25	2.50	2.00	1.50	2.25	2.00	1.50
	2.25	2.25	1.75	2.125	1.50	2.125	2.00	2.50	1.75	1.625	2.125	1.50	2.125	2.125	1.75	2.50	1.75	1.50
	2.25	1.75	2.00	2.25	2.00	1.50	2.50	2.125	2.00	1.875	2.25	1.625	2.375	2.75	1.00	3.00	2.00	1.50
	2.00	1.875	1.75	1.625	1.625	1.50	2.00	2.25	1.50	2.00	2.25	1.50	2.50	1.75	2.625	1.75	1.875	1.375
	2.50	1.75	2.00	2.25	1.375	1.625	2.00	2.00	1.50	1.25	2.375	1.875	2.625	2.00	2.00	1.50	1.75	1.75
	2.00	2.00	2.50	2.00	1.25	1.50	1.625	2.00	1.75	1.50	2.625	1.50	2.00	1.00	1.50	2.00	2.00	1.75
	2.375	2.50	2.00	2.00	1.75	1.50	3.00	2.125	2.00	1.75	2.00	1.875	2.00	1.50	1.50	2.00	1.75	1.625
	2.125	2.75	2.00	1.625	2.125	1.50	3.00	1.875	2.00	1.875	2.50	1.375	2.00	1.50	1.00	2.00	1.625	1.875
	2.25	2.375	1.875	2.625	2.25	1.625	1.50	2.00	2.50	1.00	1.875	1.50	2.00	1.50	1.50	3.00	2.00	1.50
	2.75	3.50	2.00	2.625	1.875	1.75	3.00	2.25	2.00	1.50	2.00	1.50	2.25	2.00	1.50	2.50	2.00	1.375
	2.00	3.00	1.50	3.125	1.50	1.50	1.50	2.00	1.50	2.00	1.875	1.375	2.375	2.375	1.00	2.00	1.75	1.50
	2.00	2.50	2.00	3.00	1.50	1.875	2.50	2.00	2.125	2.25	2.125	1.25	2.375	2.00	1.625	2.75	2.00	1.50
	2.00	2.00	1.875	2.50	1.75	1.75	2.50	2.25	2.25	1.875	2.25	1.50	1.625	1.75	1.75	2.50	1.75	1.375
	1.375	2.00	1.50	1.50	1.875	2.00	2.00	2.375	1.625	1.75	2.50	1.50	1.375	2.00	1.50	2.00	1.75	1.50
	1.375	2.25	1.375	1.50	1.50	1.50	2.00	2.25	2.50	2.125	2.25	1.50	2.00	2.125	1.50	2.50	2.25	3.00
	2.00	1.75	2.00	1.625	1.50	2.00	2.50	2.375	2.125	1.375	2.00	1.50	1.875	2.50	2.25	3.00	1.50	2.00
	1.625	1.875	1.50	1.50	1.375	1.50	2.00	2.25	1.75	1.50	2.375	1.75	2.00	2.25	1.25	2.00	2.25	1.75
	1.875	2.50	1.50	2.125	1.375	1.50	3.00	2.00	2.125	1.50	2.50	1.375	2.375	2.00	2.00	2.00	2.125	2.00
	2.00	2.875	1.50	2.00	2.25	1.25	3.125	1.625	1.50	1.625	2.375	1.625	2.125	1.50	1.50	1.875	2.00	1.625
	1.875	3.00	2.00	2.125	1.50	1.375	2.00	1.75	1.00	1.625	2.00	1.50	2.00	2.50	1.375	1.625	1.625	2.00
	2.00	2.75	1.625	2.50	1.75	1.125	2.50	2.50	1.375	1.50	1.75	1.25	2.00	2.00	1.50	1.50	1.50	1.75
Totals	102.625	117.00	92.500	100.125	83.25	84.50	121.375	107.00	97.875	84.25	109.75	76.50	105.625	107.25	80.25	100.25	94.125	86.25

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Highest	B′	3.125	1.2303	B′	3.125	1.2303	B′	3.50	1.3779	B′	2.50	0.9842	B′	3.00	1.1811	B′	3.00	1.1811
	B″	3.50	1.3779	B″	2.25	0.8858	B″	2.50	0.9842	B″	3.00	1.1811	B″	3.00	1.1811	B″	3.00	1.1811
	B‴	2.625	1.0334	B‴	2.25	0.8858	B‴	2.75	1.0826	B‴	2.00	0.7874	B‴	2.625	1.0334	B‴	3.00	1.1811
Highest	.....	3.50	1.3779	.....	3.125	1.2303	.....	3.50	1.3779	.....	3.00	1.1811	.....	3.00	1.1811	.....	3.00	1.1811
Lowest	B′	1.375	0.5413	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.00	0.3937	B′	1.375	0.5413	B′	1.25	0.4921
	B″	1.625	0.6397	B″	1.25	0.4921	B″	1.50	0.5905	B″	1.625	0.6397	B″	1.00	0.3937	B″	1.375	0.5413
	B‴	1.125	0.4429	B‴	1.125	0.4429	B‴	1.00	0.3937	B‴	1.00	0.3937	B‴	0.875	0.3445	B‴	1.375	0.5413
Lowest	.....	1.125	0.4429	.....	1.125	0.4429	.....	1.00	0.3937	.....	1.00	0.3937	.....	0.875	0.3445	.....	1.25	0.4921
Average	B′	2.053	0.8082	B′	2.003	0.7885	B′	2.428	0.9559	B′	1.685	0.6333	B′	2.113	0.8318	B′	2.005	0.7893
	B″	2.34	0.9212	B″	1.665	0.6555	B″	2.140	0.8425	B″	2.19	0.8622	B″	2.145	0.8429	B″	1.882	0.7409
	B‴	1.85	0.7283	B‴	1.690	0.6653	B‴	1.958	0.7708	B‴	1.53	0.6023	B‴	1.605	0.6318	B‴	1.725	0.6791
Average	.....	2.081	0.8192	.....	1.786	0.7031	.....	2.175	0.8562	.....	1.801	0.7090	.....	1.954	0.7692	.....	1.870	0.7362
Measurements above average	.....	59		.....	53		.....	72		.....	67		.....	92		.....	76	
Measurements below average	.....	91		.....	97		.....	78		.....	83		.....	58		.....	74	

TABLE IX.—*Measurements of fineness of thoroughbred Merino wools, crossbred series, &c.*—Continued.

	RAMS.															EWES.		
Catalogue number of sample...	843.			844.			845.			846.			847.			431.		
	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.00	2.125	2.00	1.50	1.50	2.00	2.25	1.875	1.50	1.50	2.00	1.25	2.00	2.00	1.75	2.50	2.00	2.50
	1.50	1.875	1.875	2.125	2.00	1.50	2.375	2.00	2.25	1.125	2.00	1.25	2.125	1.75	1.50	2.75	2.00	3.00
	1.75	2.00	2.00	2.125	1.625	1.50	1.75	2.125	2.375	1.25	1.875	1.50	2.25	1.875	1.625	3.00	1.875	2.00
	1.50	1.625	1.375	1.875	1.75	2.00	1.625	2.25	2.125	1.875	2.00	1.625	1.875	1.75	2.125	2.75	3.625	2.625
	1.875	2.00	1.75	2.00	2.00	2.00	2.25	1.50	1.75	2.00	1.375	1.50	2.25	1.50	2.00	3.00	3.375	2.00
	1.50	1.50	2.125	1.875	2.25	2.00	2.375	1.625	1.875	1.375	2.25	1.25	2.50	1.50	2.00	3.00	3.50	2.00
	1.625	1.50	1.625	2.375	1.625	1.875	2.00	2.00	1.75	2.125	2.00	1.625	2.375	1.625	2.25	2.75	3.00	1.625
	1.375	1.50	1.625	1.875	1.75	1.75	2.125	1.875	2.00	2.25	2.00	1.25	1.75	2.00	1.875	3.50	2.375	2.25
	1.375	1.25	1.875	2.00	2.25	2.00	1.75	2.25	1.50	2.50	2.00	1.625	1.875	1.75	1.50	2.625	3.00	2.50
	2.25	1.375	1.625	2.125	1.50	1.625	2.50	1.50	1.625	2.125	1.50	2.50	2.25	2.00	2.25	3.00	2.50	2.75
	1.875	1.50	1.50	1.50	2.375	1.75	2.625	1.50	2.25	1.50	1.625	1.50	2.50	1.25	2.375	3.00	2.50	1.875
	2.50	1.625	1.375	2.00	1.75	1.625	2.00	1.375	2.375	1.625	1.75	1.375	2.625	1.375	2.25	3.50	3.00	1.875
	2.75	1.75	1.625	2.125	2.00	2.75	2.375	1.625	1.75	1.50	1.50	1.875	2.25	1.50	2.50	2.50	2.50	1.625
	1.875	1.50	1.875	2.50	1.75	2.375	2.125	2.00	1.50	1.50	2.25	1.25	1.75	1.50	1.75	2.00	2.00	1.50
	1.375	1.75	1.625	1.375	1.50	1.50	1.625	2.00	1.50	1.625	1.75	1.00	2.375	1.625	2.00	2.125	3.25	2.25
	1.625	1.375	1.375	2.50	2.125	1.375	1.75	2.125	1.625	1.75	2.00	1.25	2.25	1.75	2.375	2.50	3.00	2.00
	1.50	1.50	1.50	2.50	2.00	1.25	2.375	2.00	1.75	2.25	1.50	2.25	2.00	1.375	1.75	2.00	2.00	2.375
	1.75	1.375	1.625	2.00	1.625	2.25	1.75	1.75	1.50	2.25	1.50	2.375	2.125	1.25	2.00	3.00	2.00	2.25
	2.125	1.25	1.75	2.00	1.75	2.375	2.125	1.875	2.25	1.50	2.375	1.50	2.125	2.00	1.875	2.25	2.875	2.25
	2.00	1.25	1.375	1.875	1.50	1.625	2.25	1.50	2.375	1.625	1.50	1.375	2.25	2.00	2.00	2.50	2.50	2.375
	2.25	1.375	1.625	2.00	2.00	1.375	2.375	1.75	2.00	1.50	2.00	1.75	1.875	2.25	2.25	2.50	2.375	2.00
	1.625	1.375	2.125	2.00	2.25	1.25	2.25	2.25	1.50	2.00	1.875	2.00	2.25	2.375	2.375	2.75	2.00	1.875
	2.125	1.25	2.125	1.875	1.75	1.625	2.00	2.50	1.75	1.50	1.50	2.25	2.00	1.50	2.25	2.25	2.25	1.75
	2.00	1.50	1.625	2.00	1.50	2.00	2.625	1.50	1.875	1.625	1.50	1.75	1.625	1.50	2.125	2.25	2.25	1.875
	2.00	1.375	2.00	1.75	1.50	1.75	2.25	2.125	1.75	1.875	2.25	1.50	1.75	1.625	2.00	2.25	2.25	2.375
	2.125	2.00	1.875	2.125	1.375	2.00	1.875	2.00	1.625	2.00	2.00	2.25	1.625	2.00	1.875	2.50	2.00	2.75
	2.625	1.50	1.375	2.375	2.25	1.375	1.75	2.125	2.00	1.50	1.50	2.125	2.25	1.50	2.00	3.50	2.50	2.875
	2.125	2.375	1.50	2.00	2.00	2.25	2.50	2.50	1.50	1.625	1.75	2.00	2.375	1.625	2.25	3.00	2.25	2.125
	1.625	1.50	1.375	1.875	1.75	2.125	2.00	2.00	1.25	1.75	2.25	1.625	2.25	2.00	2.125	3.00	2.25	1.625
	1.875	1.50	2.25	2.50	1.625	1.75	1.75	1.75	1.625	2.00	1.50	2.25	2.00	1.375	1.75	2.25	2.25	2.00
	1.75	1.75	1.75	2.125	2.00	1.875	2.00	1.75	1.75	2.125	2.00	2.00	2.375	2.00	1.875	2.50	2.50	1.625
	1.625	1.625	2.375	2.50	1.75	1.375	2.00	1.625	1.875	1.875	1.50	2.125	2.375	2.125	2.00	2.75	2.75	2.00
	2.125	2.00	2.50	2.00	1.625	3.00	2.125	1.50	2.125	2.00	1.75	1.875	1.875	2.00	2.125	3.375	2.00	1.875
	1.125	1.50	1.50	2.50	2.50	1.125	1.875	2.00	1.50	2.375	2.00	2.50	1.50	2.50	2.00	2.50	3.00	1.875
	1.625	1.375	1.625	1.875	1.50	1.50	2.00	1.50	2.125	1.875	1.75	1.75	2.25	1.75	2.50	3.00	2.50	1.75
	1.875	1.375	1.125	2.50	1.625	2.00	2.25	1.625	1.75	1.75	2.25	2.25	1.50	2.00	1.875	2.625	2.375	2.00
	1.875	1.75	1.375	2.125	1.50	2.00	2.625	1.75	1.875	1.75	1.875	2.50	2.25	1.75	1.75	2.50	2.00	2.375
	2.00	1.25	2.00	2.50	1.75	2.25	2.50	1.75	1.50	1.25	2.00	2.25	1.625	1.625	2.75	2.00	2.00	2.50
	1.75	1.50	2.50	2.125	1.75	2.00	2.25	2.00	1.375	2.00	2.50	1.75	1.75	2.00	2.00	3.00	3.00	2.75
	2.25	1.50	1.375	1.50	1.75	1.625	2.00	1.50	1.625	2.125	1.75	1.375	1.875	2.00	1.625	3.00	2.25	1.75
	2.125	2.375	2.875	1.875	1.50	1.75	2.00	1.75	1.75	2.00	1.75	1.625	2.00	1.625	2.25	2.625	3.00	1.50
	1.50	1.625	2.50	1.625	2.25	2.00	1.75	1.625	1.875	1.75	2.00	1.50	2.125	3.00	2.375	2.50	2.50	2.00
	1.625	2.125	1.625	2.00	2.375	1.375	1.875	1.625	2.00	2.125	2.50	1.50	1.75	2.50	2.00	2.375	3.00	2.00
	1.875	1.50	1.375	2.00	2.50	1.75	1.75	1.50	1.50	2.00	2.50	3.00	1.625	1.875	2.25	3.00	2.625	1.625
	2.00	1.50	1.375	1.875	2.50	2.25	2.625	2.00	1.625	1.625	2.25	1.25	2.50	2.125	2.125	2.50	2.00	1.50
	1.75	1.375	1.75	2.00	2.375	2.75	2.375	1.50	2.00	1.75	1.875	1.50	2.25	1.50	2.25	2.125	2.00	2.00
	1.50	2.00	2.25	1.50	1.75	1.50	3.00	1.75	1.75	2.00	2.00	1.625	2.375	1.50	2.375	2.00	3.25	2.25
	1.625	2.00	2.00	2.125	1.50	1.25	2.25	2.25	1.50	2.25	1.875	2.00	1.50	1.375	1.50	2.50	2.25	2.00
	1.75	1.75	2.375	2.50	2.00	1.375	2.00	2.00	2.00	1.50	2.25	2.125	2.375	1.50	1.75	3.125	2.75	2.75
Totals	1.625	1.50	2.00	2.00	1.75	2.00	1.875	2.00	1.875	1.625	1.50	1.75	2.25	1.50	1.625	3.775	2.00	2.125
	92.875	85.125	89.375	101.500	91.875	91.375	106.250	94.250	89.750	88.125	95.375	89.125	101.625	87.875	101.75	130.875	119.750	106.375

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Highest	B′	2.75	1.0826	B′	2.50	0.9842	B′	3.00	1.1811	B′	2.50	0.9842	B′	2.625	1.0334	B′	3.50	1.3779
	B″	2.375	0.9350	B″	2.50	0.9842	B″	2.50	0.9842	B″	3.25	1.2795	B″	3.00	1.1811	B″	3.625	1.4271
	B‴	2.875	1.1318	B‴	3.00	1.1811	B‴	2.375	0.9350	B‴	3.00	1.1811	B‴	2.75	1.0826	B‴	3.00	1.1811
Highest		2.875	1.1318		3.00	1.1811		3.00	1.1811		3.25	1.2795		3.00	1.1811		3.625	1.4271
Lowest	B′	1.125	0.4429	B′	1.50	0.5905	B′	1.625	0.6397	B′	1.125	0.4429	B′	1.50	0.5905	B′	2.00	0.7874
	B″	1.25	0.4921	B″	1.375	0.5413	B″	1.375	0.5413	B″	1.375	0.5413	B″	1.25	0.4921	B″	1.875	0.7380
	B‴	1.125	0.4429	B‴	1.125	0.4429	B‴	1.25	0.4921	B‴	1.00	0.3937	B‴	1.50	0.5905	B‴	1.50	0.5905
Lowest		1.125	0.4429		1.125	0.4429		1.25	0.4921		1.00	0.3937		1.25	0.4921		1.50	0.5905
Average	B′	1.858	0.7314	B′	2.060	0.8110	B′	2.130	0.8385	B′	1.804	0.7098	B′	2.033	0.8004	B′	2.618	1.0307
	B″	1.602	0.6307	B″	1.837	0.7232	B″	1.845	0.7263	B″	1.917	0.7547	B″	1.767	0.6917	B″	2.369	0.9409
	B‴	1.788	0.7039	B‴	1.828	0.7126	B‴	1.810	0.7125	B‴	1.803	0.7098	B‴	2.035	0.8011	B‴	2.128	0.8377
Average		1.755	0.6909		1.908	0.7511		1.929	0.7594		1.841	0.7248		1.941	0.7641		2.378	0.9362
Measurements above average			65			76			75			76			69			65
Measurements below average			94			74			75			74			80			85

TABLE IX.—*Measurements of fineness of thoroughbred Merino wools, crossbred series, &c.*—Continued.

EWES.

Catalogue number of sample...	435.			868.			869.			870.			871.			872.		
	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.00	2.00	2.00	2.375	1.75	1.875	1.625	1.625	1.75	1.50	1.25	1.25	1.75	1.50	2.125	2.00	1.50	2.00
	2.50	2.00	2.00	2.125	1.50	1.625	1.875	2.00	2.00	1.125	1.375	1.625	2.00	1.75	1.50	1.50	2.00	1.375
	2.25	1.75	1.75	1.875	1.625	1.50	1.75	1.50	1.375	1.50	2.00	1.875	2.25	1.375	2.125	2.00	1.50	2.125
	2.50	2.25	1.75	2.50	2.00	1.75	1.50	2.00	1.875	1.50	1.625	1.625	2.50	1.50	1.50	1.50	2.50	2.125
	2.25	2.50	1.625	1.875	1.625	1.625	2.00	2.00	1.50	1.875	2.00	1.50	2.50	1.875	2.00	2.125	1.625	1.50
	2.00	1.875	2.00	2.00	2.25	1.875	1.875	1.875	1.875	1.50	1.00	1.375	2.00	2.125	1.875	1.875	2.00	1.375
	2.50	2.00	1.875	1.875	1.75	2.00	2.875	2.25	2.125	2.00	1.50	1.375	2.25	2.125	1.625	1.75	1.75	1.125
	2.00	1.875	2.00	1.875	1.25	1.75	2.375	2.00	1.875	1.75	1.50	1.375	2.75	2.00	1.875	1.50	1.625	2.00
	2.00	2.00	2.00	2.375	1.625	1.875	2.125	1.625	1.875	1.50	1.625	1.625	2.00	1.25	1.375	1.375	1.75	1.625
	1.50	2.00	3.00	2.00	1.50	1.50	2.625	2.75	1.50	1.50	1.50	1.375	2.50	2.00	2.50	1.75	1.75	1.375
	2.00	1.875	1.75	2.125	1.625	1.625	1.50	2.375	2.00	2.50	2.00	1.125	2.50	1.50	2.25	1.75	1.75	1.375
	2.50	2.00	2.00	1.75	2.00	1.375	2.875	2.25	2.125	1.50	1.25	1.375	3.00	2.00	2.25	2.00	2.125	1.50
	2.00	1.50	2.00	2.00	1.50	1.625	2.00	2.125	1.875	1.875	1.375	1.25	2.25	2.00	2.50	2.00	1.625	2.00
	2.00	2.00	2.125	1.875	2.50	1.375	1.625	1.875	1.875	1.50	2.00	1.25	2.00	1.50	2.125	1.75	2.125	1.50
	2.00	2.00	1.75	2.375	2.00	2.00	1.375	2.00	1.75	1.50	1.50	1.25	2.50	1.75	1.375	2.25	1.375	2.00
	2.00	2.50	1.875	2.25	2.25	1.375	2.00	1.50	2.00	1.625	2.25	1.50	2.00	1.875	2.00	2.00	1.50	1.75
	2.00	2.00	1.75	2.00	1.875	1.50	2.125	2.00	1.50	1.50	2.00	1.75	2.00	2.50	1.50	1.375	1.875	2.125
	2.00	2.00	2.00	2.00	1.875	2.00	2.50	2.00	2.00	1.625	2.00	2.00	2.00	1.75	1.75	1.50	2.125	2.00
	2.25	2.00	2.00	2.00	2.00	1.50	2.00	1.50	1.75	1.50	1.00	1.25	1.75	1.625	1.875	2.00	2.50	1.125
	2.00	2.25	1.875	2.00	1.75	1.25	1.875	1.625	1.375	1.75	1.25	1.25	2.00	1.50	1.50	1.875	1.50	1.875
	2.00	2.00	4.00	2.00	1.75	1.625	2.50	1.75	2.00	2.125	1.125	1.00	2.125	1.75	2.00	1.875	1.625	1.50
	2.00	1.75	2.50	2.375	2.00	1.375	2.50	2.50	1.75	2.00	2.00	1.50	2.00	2.00	1.50	2.00	2.125	2.125
	2.00	2.00	2.00	2.375	2.625	1.875	2.00	2.00	2.00	1.50	1.50	2.00	2.00	1.50	2.50	1.75	1.50	1.875
	2.00	1.875	2.00	2.00	1.50	1.50	2.25	2.00	1.875	2.125	1.375	1.125	2.00	2.75	2.00	1.875	1.875	2.125
	2.50	2.00	1.75	2.00	2.00	1.75	2.00	2.00	1.625	1.625	1.50	1.50	2.00	1.625	1.50	2.00	2.125	1.50
	2.25	2.375	1.75	1.625	2.00	1.375	2.375	1.75	1.625	1.50	1.00	1.125	1.875	1.50	1.625	1.50	1.375	1.50
	1.875	2.00	2.00	2.125	1.875	1.625	2.375	1.875	1.50	2.00	1.50	1.50	1.75	2.125	1.50	2.00	2.00	1.50
	2.00	1.75	2.00	2.00	2.00	1.625	3.00	2.00	1.50	1.875	1.125	1.75	2.50	1.875	1.50	1.50	2.00	1.625
	2.50	1.50	2.00	2.125	1.625	1.375	2.50	1.75	1.875	1.625	1.375	1.375	2.625	2.00	1.25	1.50	2.00	1.375
	2.50	1.50	2.00	1.875	1.50	1.625	2.75	1.625	1.875	1.875	2.25	2.00	2.00	1.375	1.875	2.25	1.50	1.50
	2.00	1.75	1.875	2.125	1.75	1.25	2.375	1.875	1.875	1.50	2.00	1.625	2.25	2.00	2.00	2.00	1.875	2.00
	2.375	1.50	2.375	2.00	1.875	1.50	2.00	2.125	1.50	1.875	1.25	1.125	2.00	1.50	1.50	1.625	1.625	1.50
	2.00	1.875	2.00	2.00	1.625	1.875	2.50	1.50	1.75	1.625	2.00	2.00	1.875	1.875	1.625	1.875	2.00	1.50
	2.00	1.50	1.50	2.125	1.625	1.375	2.625	1.50	1.375	1.625	2.00	1.875	2.00	1.50	1.25	2.00	2.50	1.875
	2.00	1.875	2.00	2.00	1.50	1.50	2.75	2.00	1.625	1.625	1.125	1.75	2.25	1.375	1.625	1.00	2.625	2.00
	2.375	1.75	1.875	2.00	2.00	1.50	1.875	1.875	2.00	1.50	1.375	2.00	1.875	2.125	1.50	1.50	1.50	2.25
	2.00	1.50	1.75	1.875	1.75	1.375	2.00	2.25	1.50	1.75	1.50	1.25	2.25	2.00	1.50	1.625	1.625	2.00
	2.25	1.50	1.50	2.125	1.50	1.625	2.25	2.50	1.875	1.75	1.25	1.50	1.875	1.75	1.50	1.50	1.75	2.125
	2.25	2.125	2.25	2.25	1.75	1.50	1.875	2.75	2.50	2.50	1.50	1.00	1.625	2.00	1.75	1.00	1.50	3.00
	1.75	1.50	2.00	2.625	1.625	1.50	2.00	1.875	1.625	1.375	1.50	1.875	2.375	1.875	1.50	1.375	2.50	2.125
	2.50	2.00	2.00	2.00	2.125	1.375	3.00	1.625	1.875	1.625	1.125	2.125	2.125	1.625	2.125	1.625	1.625	3.355
	2.25	1.75	2.00	1.875	1.50	1.625	2.125	1.875	1.50	1.875	1.75	1.50	2.00	1.875	2.125	2.125	2.00	1.50
	2.00	1.75	1.875	2.25	1.75	1.375	1.75	1.75	1.375	1.75	1.625	2.00	1.625	1.75	1.50	2.375	2.50	2.00
	2.50	1.75	1.625	1.875	2.00	1.375	2.00	2.00	1.50	2.00	2.00	1.625	2.00	2.625	2.00	3.125	1.75	1.50
	2.25	1.75	2.00	2.50	2.125	1.50	2.125	2.125	2.375	1.50	1.50	2.125	3.00	1.875	2.00	1.625	2.00	2.50
	2.00	2.00	2.00	1.25	1.50	1.375	2.125	1.875	1.625	1.75	2.00	1.75	2.375	1.625	1.50	1.75	1.75	2.00
	3.00	2.00	1.50	2.375	1.875	2.125	2.375	2.375	2.50	1.625	1.50	1.50	2.00	2.00	2.50	1.50	1.375	2.375
	2.375	1.75	2.125	1.50	1.50	1.625	1.50	1.75	2.00	2.125	1.125	2.00	1.75	1.625	2.00	1.50	2.50	1.50
	1.75	2.50	2.00	2.375	1.50	2.00	2.375	2.125	1.125	1.625	1.75	1.625	2.50	1.375	1.50	1.50	1.50	2.00
	2.00	1.875	1.75	2.625	1.50	1.75	2.625	2.00	1.625	1.375	1.50	1.50	2.75	1.75	1.50	2.375	2.00	1.75
Totals	107.50	95.125	99.125	103.50	89.50	79.875	109.00	98.125	88.750	85.25	78.125	77.625	107.875	91.125	89.375	89.125	92.625	91.375

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Highest	B′	3.00	1.1811	B′	2.625	1.0334	B′	3.00	1.1811	B′	2.50	0.9842	B′	3.00	1.1811	B′	3.125	1.2303
	B″	2.50	0.9842	B″	2.625	1.0334	B″	2.75	1.0826	B″	2.25	0.8858	B″	2.75	1.0826	B″	2.625	1.0334
	B‴	4.00	1.5748	B‴	2.125	0.8366	B‴	2.50	0.9842	B‴	2.125	0.8366	B‴	2.50	0.9842	B‴	3.375	1.3287
Highest		4.00	1.5748		2.625	1.0334		3.00	1.1811		2.50	0.9842		3.00	1.1811		3.375	1.3287
Lowest	B′	1.50	0.5905	B′	1.25	0.4921	B′	1.375	0.5413	B′	1.125	0.4429	B′	1.625	0.6397	B′	1.00	0.3937
	B″	1.50	0.5905	B″	1.25	0.4921	B″	1.50	0.5905	B″	1.00	0.3937	B″	1.25	0.4921	B″	1.375	0.5413
	B‴	1.50	0.5905	B‴	1.25	0.4921	B‴	1.125	0.4429	B‴	1.00	0.3937	B‴	1.25	0.4921	B‴	1.125	0.4429
Lowest		1.50	0.5905		1.25	0.4921		1.125	0.4429		1.00	0.3937		1.25	0.4921		1.00	0.3937
Average	B′	2.150	0.8464	B′	2.07	0.8149	B′	2.180	0.8582	B′	1.705	0.6712	B′	2.158	0.8496	B′	1.783	0.7019
	B″	1.903	0.7492	B″	1.79	0.6964	B″	1.963	0.7728	B″	1.563	0.6153	B″	1.823	0.7177	B″	1.853	0.7295
	B‴	1.983	0.7807	B‴	1.597	0.6287	B‴	1.775	0.6988	B‴	1.553	0.6114	B‴	1.788	0.7039	B‴	1.828	0.7196
Average		2.012	0.7921		1.819	0.7051		1.973	0.7767		1.607	0.6326		1.923	0.7570		1.821	0.7169
Measurements above average		35			77			77			72			76			73	
Measurements below average		115			73			73			78			74			77	

TABLE IX.—*Measurements of fineness of thoroughbred Merino wools, crossbred series, &c.*—Continued.

EWES.

Catalogue number of sample...	873.			874.			875.			876.			877.			432.		
	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.875	1.50	2.00	2.00	2.00	2.00	2.00	1.50	1.875	2.50	1.75	2.50	2.75	2.25	2.00	2.50	2.875	2.00
	2.00	2.00	2.00	2.00	1.75	1.375	2.00	1.75	2.25	2.00	1.75	2.50	3.00	2.375	2.00	3.50	2.625	2.00
	1.875	2.50	2.00	1.625	2.00	1.875	2.25	1.375	1.625	2.50	2.75	2.50	2.25	2.00	1.75	3.00	2.50	2.75
	1.75	2.00	2.00	1.50	1.875	1.625	2.125	2.50	1.625	2.00	1.625	2.50	2.50	1.75	2.25	3.50	2.50	2.75
	2.00	1.75	2.00	2.00	1.75	2.00	2.125	1.375	1.625	1.875	1.75	2.375	2.50	2.00	1.875	3.50	2.75	3.50
	2.00	1.875	1.50	1.25	2.125	2.00	2.50	2.125	2.00	2.50	2.00	2.125	1.875	2.00	1.75	3.50	3.50	2.75
	2.125	2.625	1.50	1.625	2.125	1.625	2.50	2.50	1.75	2.125	1.75	2.50	2.25	1.50	1.50	3.00	3.00	3.00
	1.875	1.75	1.375	1.875	1.375	1.625	2.00	2.125	2.00	2.25	2.00	2.125	2.375	2.00	1.625	3.00	2.00	3.00
	1.50	1.625	1.875	2.00	2.25	1.75	2.00	1.50	1.50	2.75	1.50	2.25	2.375	2.00	1.875	3.00	2.00	3.00
	2.625	2.00	2.125	3.00	1.625	1.50	2.75	2.00	1.625	2.375	1.50	2.00	1.875	1.50	1.875	2.00	3.00	3.00
	2.25	1.75	2.375	2.00	1.50	2.125	2.00	1.50	1.875	2.25	2.00	2.625	2.50	1.875	2.375	2.00	3.00	2.50
	2.125	2.00	2.00	1.875	2.125	1.625	2.00	1.625	2.25	1.625	1.875	2.375	2.00	1.375	1.75	3.00	2.00	3.00
	2.375	2.25	2.50	1.50	1.50	1.875	2.50	1.375	2.50	2.50	2.625	2.50	2.50	2.00	2.00	2.25	2.50	2.50
	2.375	1.625	2.00	2.00	1.50	1.75	2.75	1.50	2.00	1.50	2.00	1.625	2.75	2.125	1.50	2.50	2.50	2.25
	2.50	1.875	1.875	2.50	2.625	2.00	2.50	1.50	1.375	2.00	1.75	3.00	2.50	1.875	2.00	2.00	3.00	3.00
	2.375	2.00	2.00	1.375	1.50	1.875	2.125	1.75	1.50	2.375	1.875	1.50	3.00	1.625	2.50	2.50	3.50	2.00
	2.25	2.375	1.75	2.25	2.50	1.625	2.00	1.50	1.50	3.00	1.50	2.125	2.00	2.00	2.50	2.375	2.00	2.50
	2.50	1.625	1.875	2.75	2.00	2.00	1.875	1.75	1.875	2.50	2.00	2.00	2.50	1.75	1.875	2.00	1.25	2.50
	2.375	2.00	3.00	1.625	1.625	1.625	2.00	1.50	1.50	3.00	2.00	3.00	3.00	1.75	2.00	2.50	3.00	3.125
	1.875	2.25	2.125	1.625	1.75	2.00	2.50	1.875	1.50	2.125	2.00	2.00	2.00	2.00	1.625	2.25	2.00	3.00
	2.125	1.875	2.00	2.125	2.125	1.625	2.00	2.00	1.50	2.25	2.00	1.75	2.00	2.25	1.50	3.00	3.00	2.25
	2.00	2.125	1.50	1.875	1.75	1.625	2.625	1.50	1.50	2.75	1.625	1.875	2.00	2.125	1.875	2.50	2.25	2.50
	1.50	2.00	2.125	2.00	2.00	1.75	1.50	2.00	1.25	2.50	1.50	2.375	2.50	1.875	2.50	2.50	3.00	2.00
	2.00	2.50	2.25	2.375	1.50	2.125	2.625	1.50	1.625	2.375	1.50	2.125	2.50	2.25	1.50	3.00	2.25	2.00
	1.625	2.00	3.00	1.625	1.375	1.50	2.00	1.375	2.00	2.375	2.00	2.00	2.00	2.00	2.25	3.00	3.00	3.00
	2.00	2.00	2.125	2.125	1.75	2.00	2.50	1.75	1.25	1.75	2.50	2.00	2.00	2.00	2.00	2.50	3.00	2.50
	2.75	2.125	1.50	1.50	1.50	1.625	1.875	1.75	1.625	2.125	2.25	2.50	2.00	2.50	2.375	2.00	3.00	2.00
	2.375	1.50	2.375	1.625	1.625	1.75	1.875	1.50	1.875	2.125	2.50	2.50	2.00	2.625	1.625	3.00	2.50	2.50
	2.25	2.00	3.00	2.75	1.625	2.00	2.00	2.00	1.50	1.875	1.625	2.00	2.50	1.875	2.00	2.00	2.50	2.00
	1.875	2.25	2.00	2.125	1.50	2.00	1.625	1.25	1.50	1.75	2.375	2.50	2.50	2.75	1.50	2.00	2.50	2.00
	2.375	1.75	2.25	2.00	1.50	2.00	2.50	1.75	2.00	2.00	2.25	2.00	2.50	1.875	2.125	1.75	2.75	2.00
	2.50	1.625	2.125	2.00	1.375	1.875	2.00	1.75	1.75	1.625	2.125	2.125	2.375	2.00	2.00	2.50	2.00	2.00
	1.50	2.375	2.00	2.50	2.00	2.00	2.50	2.00	1.75	2.75	1.875	1.875	2.50	2.50	1.50	2.00	2.375	2.50
	2.125	1.625	2.00	1.75	1.50	1.625	2.00	1.50	1.625	2.25	1.75	2.00	2.00	2.00	1.875	3.00	2.50	3.00
	2.00	1.75	1.75	2.00	1.50	2.00	2.50	1.75	1.50	1.50	1.75	1.875	3.00	1.50	1.75	1.75	2.00	2.50
	2.50	1.50	2.375	1.75	1.75	1.625	2.125	1.75	1.75	2.00	2.50	2.50	1.625	2.25	1.50	2.00	3.25	2.75
	2.50	2.00	2.50	2.00	1.625	1.75	1.875	1.75	2.00	2.00	1.75	2.50	2.50	1.875	2.125	2.375	2.00	3.00
	2.50	1.75	1.50	1.625	1.375	1.75	2.50	1.50	1.375	2.00	2.00	2.00	2.625	2.50	1.75	2.875	2.00	1.75
	2.00	2.125	1.625	1.75	1.75	1.50	1.75	2.00	1.375	2.00	2.25	1.625	2.375	2.50	2.00	3.00	2.00	2.50
	2.00	2.00	1.875	2.00	1.00	1.75	2.00	2.00	1.50	2.125	1.375	3.00	2.125	2.00	2.75	3.00	2.50	1.75
	2.00	2.25	1.75	2.50	1.50	2.00	2.75	1.50	2.00	1.50	1.625	1.875	2.00	1.875	1.50	3.25	2.00	2.75
	2.50	1.625	1.625	1.875	1.625	1.50	2.125	1.50	1.50	2.25	1.625	2.25	2.50	1.875	1.625	2.375	3.00	2.75
	1.50	2.00	1.50	1.875	1.875	1.75	1.875	1.625	1.50	2.00	1.375	2.00	2.375	2.50	1.875	3.00	3.00	2.125
	2.00	1.625	2.125	1.625	2.00	2.00	1.75	2.00	1.75	1.625	2.00	2.25	2.00	2.50	2.25	3.625	2.50	1.75
	2.75	2.50	2.125	2.00	1.50	1.625	1.75	1.75	1.625	1.875	1.50	1.875	1.75	2.00	1.50	2.00	2.25	2.00
	2.125	2.00	1.625	1.875	1.875	2.00	2.00	2.00	1.875	2.25	2.00	2.75	1.625	2.125	1.875	2.50	2.50	2.125
	1.875	1.75	1.50	1.375	2.00	1.50	1.625	2.00	1.50	2.00	2.125	2.25	1.50	1.875	2.00	3.25	2.50	2.50
	1.625	2.25	2.50	2.00	1.875	1.50	2.00	1.75	1.50	2.125	1.50	2.25	3.50	1.75	1.75	3.625	2.00	2.50
	2.375	1.625	1.875	1.625	2.00	1.75	2.00	1.50	1.75	2.00	2.00	2.00	2.00	2.125	2.00	2.50	2.75	2.50
	3.00	2.125	1.75	2.375	1.625	2.00	1.875	1.375	2.00	2.00	2.375	2.50	2.00	1.75	1.375	2.75	3.00	3.50
Totals	106.375	99.00	100.625	98.00	88.00	89.375	107.625	85.50	85.00	107.00	98.125	111.625	119.625	101.375	95.00	128.50	110.125	123.125

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Highest	B′	3.00	1.1811	B′	3.00	1.1811	B′	2.75	1.0826	B′	3.00	1.1811	B′	3.50	1.3779	B′	3.625	1.4271
	B″	2.625	1.0333	B″	2.625	1.0334	B″	2.50	0.9842	B″	2.75	1.0826	B″	2.75	1.0826	B″	3.50	1.3779
	B‴	3.00	1.1811	B‴	2.125	0.8366	B‴	2.50	0.9842	B‴	3.00	1.1811	B‴	2.75	1.0826	B‴	3.50	1.3779
Highest		3.00	1.1811		3.00	1.1811		2.75	1.0826		3.00	1.1211		3.50	1.3779		3.625	1.4271
Lowest	B′	1.50	0.5905	B′	1.25	0.4921	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.75	0.6889
	B″	1.50	0.5905	B″	1.00	0.3937	B″	1.25	0.4921	B″	1.375	0.5413	B″	1.375	0.5413	B″	1.25	0.4921
	B‴	1.375	0.5413	B‴	1.375	0.5413	B‴	1.25	0.4921	B‴	1.50	0.5905	B‴	1.375	0.5413	B‴	1.75	0.6889
Lowest		1.375	0.5413		1.00	0.3937		1.25	0.4921		1.375	0.5413		1.375	0.5413		1.25	0.4921
Average	B′	2.128	0.8377	B′	1.96	0.7716	B′	2.153	0.8476	B′	2.14	0.8425	B′	2.391	0.9421	B′	2.57	1.0118
	B″	1.98	0.7795	B″	1.76	0.6929	B″	1.71	0.6732	B″	1.963	0.7728	B″	2.028	0.7984	B″	2.263	0.8873
	B‴	2.013	0.7925	B‴	1.788	0.7039	B‴	1.700	0.6692	B‴	2.233	0.8791	B‴	1.888	0.7480	B‴	2.463	0.9696
Average		2.049	0.8031		1.836	0.7228		1.854	0.7299		2.112	0.8314		2.107	0.8295		2.412	0.9496
Measurements above average			59			73			75			69			58			99
Measurements below average			91			77			75			81			95			51

TABLE IX.—*Measurements of fineness of thoroughbred Merino wools, crossbred series, &c.*—Continued.

EWES.

Catalogue number of sample...	858.			859.			860.			861.			862.			863.		
	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.50	2.75	2.50	3.50	3.75	3.25	1.625	1.75	2.50	2.50	2.125	2.50	2.00	2.25	3.375	2.875	2.75	2.875
	2.25	2.125	2.125	2.25	1.875	2.125	2.125	2.00	2.00	3.50	2.25	2.00	1.875	3.00	2.00	1.50	2.875	3.50
	3.125	3.125	2.50	2.50	2.00	2.875	2.00	1.75	2.375	2.50	2.625	2.875	2.125	3.00	2.375	2.50	2.50	3.125
	1.625	1.875	2.625	2.375	2.25	2.625	2.125	2.00	1.625	3.00	1.875	1.875	3.50	3.00	2.50	2.625	3.125	2.50
	2.50	3.00	1.875	4.00	2.25	2.50	1.875	1.625	2.00	2.375	1.50	2.00	3.00	2.50	2.375	3.50	2.875	2.00
	1.75	2.00	2.50	3.75	3.125	2.375	3.00	2.50	1.875	2.00	2.00	2.50	2.50	3.00	2.375	2.50	2.50	2.125
	2.25	2.50	2.50	1.875	2.375	2.50	2.50	1.50	2.125	2.375	1.75	2.25	2.375	2.25	2.625	3.75	3.00	2.00
	3.625	2.50	2.875	2.50	3.75	2.375	2.00	1.75	1.875	1.50	2.00	2.50	2.75	2.00	2.00	2.375	3.50	2.50
	2.50	2.50	1.875	2.625	1.625	2.625	2.125	2.00	2.00	2.625	2.25	2.375	3.50	2.50	2.50	2.625	2.00	3.25
	2.50	2.125	2.50	3.00	1.625	2.00	1.875	2.50	2.375	2.00	2.125	2.625	2.50	2.50	2.125	2.375	4.00	3.00
	2.75	2.50	2.75	2.00	2.50	2.625	2.50	1.50	2.50	2.50	2.50	2.50	3.00	2.625	2.00	2.50	2.50	2.50
	2.875	2.25	2.75	3.75	1.875	2.125	2.625	1.875	2.125	2.625	2.375	2.50	2.25	2.00	2.375	2.50	2.50	2.50
	2.50	3.125	3.125	2.375	2.25	2.375	2.375	2.00	2.50	2.125	3.00	2.375	2.875	2.375	2.00	2.625	2.375	2.625
	2.375	2.375	2.875	2.25	2.25	2.50	2.375	1.75	2.625	3.50	2.25	2.375	2.375	2.50	2.875	3.125	3.875	2.375
	1.875	2.00	2.375	3.375	3.25	2.00	2.00	2.00	1.875	2.50	2.25	2.125	2.50	3.00	2.50	3.25	2.125	2.00
	2.25	2.375	2.50	3.625	2.125	1.875	1.875	1.75	1.875	2.875	2.375	2.375	3.375	2.50	2.50	3.00	2.50	1.875
	2.50	2.375	1.875	1.875	2.75	2.50	1.875	1.50	1.50	3.75	2.50	3.00	2.50	2.75	2.375	2.50	3.00	2.00
	2.00	2.125	2.875	2.00	2.125	2.00	2.00	2.125	2.00	3.75	1.75	2.50	2.875	2.50	1.875	2.125	2.375	2.75
	3.00	3.25	2.50	2.125	3.00	2.25	1.875	2.25	2.875	2.50	2.625	2.375	3.00	2.125	2.00	2.875	2.50	2.375
	2.50	3.00	1.875	2.625	2.375	2.25	1.875	2.25	2.375	3.00	2.375	2.375	2.625	3.00	3.00	2.00	3.50	2.375
	2.50	2.00	2.50	2.375	2.75	2.25	1.625	2.00	2.50	3.00	2.50	2.625	1.875	2.50	2.00	2.375	2.25	2.125
	2.875	3.375	2.50	2.50	1.875	2.00	1.875	2.00	2.50	3.25	2.375	1.875	2.875	3.375	2.50	2.00	2.00	2.875
	3.00	2.50	2.50	2.125	2.375	2.00	1.875	1.625	2.00	2.125	1.50	2.375	2.75	2.625	2.375	3.375	2.50	2.125
	2.375	2.625	2.125	2.25	3.00	3.50	2.50	1.75	1.875	2.50	1.75	2.375	1.375	2.00	2.875	2.625	3.00	2.50
	2.75	3.50	2.375	2.50	3.00	2.25	1.50	2.00	2.125	3.75	2.875	2.50	2.75	1.875	2.50	3.50	3.25	2.125
	2.50	3.00	2.375	2.75	2.50	2.00	2.375	1.75	2.125	2.375	2.625	2.50	1.875	2.00	2.625	2.125	2.25	1.875
	3.125	3.00	2.125	2.75	2.25	3.00	2.50	1.625	2.375	3.25	1.75	2.675	2.25	2.00	2.375	2.50	2.75	2.875
	2.25	2.50	2.50	2.50	3.625	3.00	1.625	2.00	2.375	2.50	1.625	2.375	2.00	2.50	2.50	2.50	2.375	2.375
	2.875	3.25	2.50	2.375	2.00	2.00	1.625	2.00	2.375	3.125	1.25	2.50	2.50	1.75	2.375	2.75	2.00	3.00
	2.375	1.625	2.25	2.00	2.875	2.25	1.75	1.75	1.875	2.50	1.875	2.50	3.00	2.50	1.875	3.50	4.375	2.125
	3.00	2.375	3.09	2.125	3.50	2.125	2.00	2.125	2.125	2.50	2.125	2.875	2.375	2.375	3.50	2.25	2.50	2.375
	3.625	3.00	2.375	3.00	2.25	3.00	2.125	1.875	2.125	2.375	2.50	2.75	2.375	2.75	2.375	2.875	2.125	2.50
	3.50	2.50	2.125	3.625	3.625	3.75	2.375	2.50	2.00	2.50	2.00	2.625	2.00	1.50	3.00	2.75	2.375	2.125
	2.875	2.50	2.625	3.25	2.25	2.50	2.50	1.75	2.125	2.375	2.625	2.50	2.125	2.75	2.50	2.875	2.00	1.625
	2.50	2.00	3.00	2.25	2.50	2.50	1.75	1.75	1.875	2.50	1.875	2.375	2.25	2.125	2.375	2.25	2.25	2.625
	2.50	2.75	3.00	2.375	2.625	3.00	2.00	2.00	2.00	2.875	1.625	2.25	2.00	2.50	2.00	3.00	3.00	2.125
	3.00	2.625	3.625	2.625	3.125	2.25	2.25	1.875	1.625	2.75	2.125	1.50	2.00	1.625	2.125	3.50	3.50	3.00
	2.50	2.125	2.875	2.50	2.75	2.25	1.75	2.00	2.75	2.375	2.00	2.00	3.50	2.50	1.875	3.75	2.625	1.875
	3.00	2.50	2.125	2.25	2.00	2.50	1.875	1.375	2.25	3.25	2.125	2.125	3.50	2.375	1.75	2.875	2.75	3.75
	1.625	3.00	2.125	2.75	2.50	2.75	1.875	2.00	2.00	2.50	1.75	2.375	2.50	2.50	2.75	3.50	3.125	2.25
	3.00	2.50	2.375	2.875	2.50	2.00	2.00	1.75	1.75	2.625	1.625	2.00	1.50	2.375	1.875	3.25	2.625	2.875
	2.50	2.50	2.50	2.25	1.875	2.25	2.50	2.125	1.50	3.50	2.125	2.00	2.50	1.50	2.875	3.50	2.50	2.375
	3.625	1.50	2.00	2.50	1.625	2.75	1.75	1.50	2.00	3.00	1.75	2.875	3.50	2.375	2.375	3.125	3.00	2.50
	2.50	2.50	2.50	2.75	3.00	2.50	1.125	1.625	1.625	2.50	2.25	2.875	3.375	2.00	2.50	2.375	2.125	2.00
	3.00	2.50	2.50	2.625	3.25	3.00	2.00	1.50	2.00	2.875	2.50	2.375	2.875	3.00	2.50	3.50	3.00	2.25
	2.50	2.50	2.50	2.125	2.50	2.75	2.125	1.375	1.50	2.125	2.00	2.75	2.375	2.75	1.875	4.00	3.50	2.375
	3.25	3.50	2.875	2.375	2.75	2.50	3.00	2.00	1.50	2.375	2.375	2.375	2.50	2.50	1.875	3.25	3.125	2.875
	2.375	3.00	3.50	2.375	3.00	1.875	2.50	1.50	1.875	2.75	3.00	2.375	2.875	2.50	2.625	2.125	3.25	2.50
	2.75	3.125	2.50	2.00	2.125	2.50	2.625	1.75	1.50	2.125	1.75	3.375	2.75	2.625	2.50	3.00	2.00	2.875
	3.00	3.00	2.375	1.875	2.50	3.50	2.375	2.00	1.75	2.25	2.125	2.125	2.00	2.50	1.125	2.875	3.50	3.00
Totals	131.50	130.250	125.625	129.00	126.625	124.25	104.375	94.25	102.50	133.00	107.375	120.75	127.625	121.625	117.125	141.00	138.00	124.125

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Highest	B′	3.625	1.4271	B′	4.00	1.5748	B′	3.00	1.1811	B′	3.75	1.4763	B′	3.50	1.3779	B′	4.00	1.5748
	B″	3.50	1.3779	B″	3.75	1.4763	B″	2.50	0.9842	B″	3.00	1.1811	B″	3.375	1.3287	B″	4.375	1.7224
	B‴	3.625	1.4271	B‴	3.75	1.4763	B‴	2.875	1.1318	B‴	3.375	1.3287	B‴	3.50	1.3779	B‴	3.75	1.4763
Highest		3.625	1.4271		4.00	1.5748		3.00	1.1811		3.75	1.4763		3.50	1.3779		4.375	1.7224
Lowest	B′	1.50	0.5905	B′	1.875	0.7380	B′	1.125	0.4429	B′	1.50	0.5905	B′	1.375	0.5413	B′	1.50	0.5905
	B″	1.50	0.5905	B″	1.625	0.6397	B″	1.375	0.5413	B″	1.25	0.4921	B″	1.50	0.5905	B″	2.00	0.7874
	B‴	1.875	0.7380	B‴	1.875	0.7380	B‴	1.50	0.5905	B‴	1.50	0.5905	B‴	1.125	0.4429	B‴	1.625	0.6397
Lowest		1.50	0.5905		1.625	0.6397		1.125	0.4429		1.25	0.4921		1.125	0.4429		1.50	0.5905
Average	B′	2.630	1.0354	B′	2.58	1.0157	B′	2.088	0.8220	B′	2.660	1.0472	B′	2.553	1.0051	B′	2.820	1.1102
	B″	2.605	1.0255	B″	2.533	0.9972	B″	1.885	0.7421	B″	2.148	0.8456	B″	2.433	0.9578	B″	2.760	1.0866
	B‴	2.513	0.9893	B‴	2.485	0.9783	B‴	2.05	0.8070	B‴	2.415	0.9507	B‴	2.342	0.9220	B‴	2.482	0.8984
Average		2.582	1.0165		2.532	0.9963		2.007	0.7901		2.407	0.9476		2.44	0.9606		2.687	1.0578
Measurements above average		53			56			52			70			81			74	
Measurements below average		92			94			98			80			69			76	

TABLE IX.—*Measurements of fineness of thoroughbred Merino wools, crossbred series, &c.*—Continued.

	EWES.									RAMS.					
Catalogue number of sample ..	864.			865.			866.			867.			436.			818.		
	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.625	1.875	2.75	1.875	1.875	2.00	3.00	2.25	1.75	1.875	3.25	2.50	3.00	3.25	4.00	2.25	1.75	2.125
	2.50	3.00	1.875	2.75	3.00	2.125	2.50	3.50	3.00	2.00	3.00	3.00	2.50	4.50	3.625	2.125	1.625	2.25
	2.00	3.00	2.125	1.875	2.00	1.625	2.75	1.625	3.50	2.125	4.00	2.00	3.50	4.375	4.00	1.875	1.50	2.375
	2.625	2.875	3.25	1.875	1.875	1.875	2.625	2.125	2.00	2.25	2.00	3.00	3.50	4.00	4.00	2.125	2.00	1.875
	2.375	2.375	1.875	2.00	2.00	1.50	1.875	2.00	3.375	2.50	2.00	3.25	4.00	4.125	3.25	2.25	1.875	2.00
	1.625	3.125	2.25	2.375	2.375	1.875	2.00	1.50	2.50	2.875	2.50	2.125	3.50	3.50	3.875	1.625	1.50	1.75
	2.50	2.875	2.00	2.00	2.25	1.875	1.625	1.875	2.75	2.375	3.00	2.50	3.50	4.00	4.00	1.875	2.25	1.625
	2.00	2.00	2.00	1.875	1.875	2.25	2.50	3.25	2.375	2.00	2.00	2.50	3.50	3.625	3.25	2.25	2.00	2.125
	1.625	2.50	2.625	2.00	1.625	2.50	1.875	2.00	2.50	2.125	2.25	2.375	3.50	3.50	2.00	2.00	2.375	2.00
	2.50	2.00	2.625	1.875	1.875	1.75	2.125	3.25	3.00	4.00	2.50	2.25	3.25	3.25	4.00	2.125	1.875	1.75
	2.00	2.625	1.875	2.00	1.50	1.625	2.375	3.00	2.875	2.625	3.00	3.125	3.50	3.875	3.00	2.50	1.75	1.375
	2.375	3.875	2.375	1.875	1.625	1.625	2.50	2.00	3.25	3.00	2.25	1.875	4.00	3.875	4.00	2.25	2.00	2.00
	2.50	2.125	1.50	1.875	1.50	1.75	2.00	3.25	2.125	2.375	2.50	2.875	5.00	3.50	3.50	2.375	2.125	1.875
	2.00	2.50	3.00	1.625	2.00	2.375	1.50	2.50	2.00	2.00	2.50	2.625	3.00	3.75	4.375	1.75	2.25	2.125
	1.875	2.50	2.125	2.00	2.25	1.75	2.625	2.50	2.375	1.625	2.50	1.875	2.75	3.25	4.00	1.875	2.50	2.00
	2.375	1.625	2.375	2.00	2.125	1.75	2.00	1.875	3.00	1.875	3.50	3.25	3.50	3.00	3.00	2.00	2.00	1.75
	2.625	2.125	2.375	2.50	1.875	1.875	3.00	2.50	2.00	2.875	2.00	2.75	4.00	4.00	4.00	2.125	2.00	1.875
	2.125	1.875	1.875	2.125	2.00	2.00	4.125	2.50	2.00	2.375	3.00	3.00	3.50	4.50	3.125	2.125	2.00	2.25
	3.00	2.125	2.375	1.625	1.75	1.875	3.00	2.125	2.25	2.375	1.75	2.50	3.75	4.50	3.50	2.125	1.75	2.00
	1.875	2.375	2.00	1.875	1.875	2.50	2.125	2.75	2.25	2.25	2.00	1.875	4.00	3.75	3.50	1.75	1.50	1.50
	3.50	2.25	3.625	2.50	1.50	2.125	2.125	3.25	2.00	2.875	2.125	2.50	4.25	4.00	3.25	1.875	1.50	1.75
	2.00	2.125	3.25	2.00	1.50	2.25	3.00	2.50	2.375	3.25	2.50	1.875	4.50	1.75	3.375	2.25	2.00	2.00
	2.625	1.50	2.125	2.375	1.625	1.50	2.25	2.625	2.75	2.50	3.00	2.375	3.50	4.00	4.00	2.25	1.875	2.125
	2.50	2.50	2.00	1.875	2.00	1.875	2.625	2.00	4.00	1.875	2.50	2.50	4.00	4.00	5.00	2.125	1.875	2.25
	2.125	2.125	2.875	2.00	2.00	1.875	2.75	2.75	2.00	2.50	3.50	2.125	3.75	4.75	4.125	2.00	2.00	1.50
	2.00	1.625	2.125	1.875	1.625	1.875	3.25	3.75	3.00	3.00	2.25	2.00	3.50	3.50	3.375	1.75	1.50	1.25
	2.125	2.25	2.875	1.875	1.75	1.50	2.00	2.00	3.00	3.00	3.00	2.75	3.00	3.00	4.125	1.875	1.50	2.50
	3.00	2.00	2.50	2.50	1.875	1.75	2.25	2.375	2.50	2.375	3.50	2.125	4.75	3.50	4.25	2.25	1.625	1.375
	3.50	2.375	2.75	1.875	1.75	1.50	3.625	2.00	2.875	2.50	2.875	2.75	3.50	3.25	5.00	2.125	2.00	2.00
	2.625	2.00	1.875	1.875	2.00	1.625	2.00	2.625	2.125	2.125	2.50	1.875	3.75	3.25	3.375	2.25	2.50	2.25
	2.50	2.625	2.625	2.00	1.75	2.50	2.50	3.00	2.375	2.50	2.125	2.125	3.50	3.00	4.00	1.875	1.875	1.875
	2.50	1.875	1.875	1.875	1.50	1.50	2.50	2.50	3.375	2.50	2.625	2.00	2.50	3.50	4.00	1.625	2.00	1.75
	3.50	3.375	2.75	1.875	1.625	1.875	3.125	2.00	2.25	1.875	2.00	1.875	3.50	3.25	3.00	1.75	1.75	1.375
	2.125	3.00	2.50	1.875	1.625	2.00	2.75	3.125	2.125	2.25	3.50	2.375	2.00	4.00	3.50	1.75	1.75	1.25
	3.50	2.125	2.125	1.50	2.75	2.375	3.75	2.875	2.125	2.50	2.00	2.125	3.00	4.50	3.75	1.875	2.00	2.00
	2.375	2.375	2.375	1.625	2.00	2.00	2.375	3.00	2.50	2.375	2.75	3.00	4.50	4.00	2.50	2.00	2.125	1.75
	1.25	3.50	2.625	1.625	2.125	2.00	2.625	3.00	2.875	3.00	2.50	2.75	4.375	3.75	2.50	2.25	1.875	1.375
	2.625	3.625	1.875	1.75	1.75	1.875	2.50	2.75	2.625	2.50	2.125	2.875	3.875	3.75	4.00	2.375	1.625	2.00
	2.50	2.75	2.375	1.75	2.00	1.625	1.875	2.50	2.125	3.25	2.50	3.00	5.00	4.375	2.00	2.00	1.50	2.125
	1.875	2.25	1.875	1.875	2.00	1.625	1.875	3.00	2.25	3.00	2.50	2.125	4.50	3.625	3.625	1.875	2.00	1.75
	2.375	2.125	2.875	2.00	1.875	1.75	1.875	2.00	1.875	2.75	1.75	2.875	3.75	4.00	2.50	2.25	1.375	2.25
	2.875	2.25	2.00	1.875	1.75	2.125	2.375	3.00	2.625	3.00	3.25	2.75	3.50	4.00	2.50	2.25	1.625	1.50
	2.875	2.25	2.00	2.125	1.75	2.125	2.875	2.25	2.625	2.625	2.375	3.00	3.25	3.75	4.00	2.75	1.625	1.625
	2.375	2.00	1.75	1.50	2.00	2.375	3.50	1.625	2.75	2.625	3.25	3.75	4.00	3.50	2.00	2.00	1.50	1.50
	2.00	2.00	2.25	2.125	3.00	1.625	1.625	2.875	2.00	3.00	2.25	2.375	4.00	3.00	3.125	1.75	1.50	2.00
	2.125	2.625	2.50	1.875	1.625	1.875	1.75	1.75	2.375	3.50	3.50	2.00	3.50	3.50	3.375	2.125	1.375	2.00
	2.375	3.00	2.50	1.50	2.125	1.625	2.00	2.375	2.875	2.75	1.75	2.375	3.625	4.50	2.025	2.00	2.00	1.875
	2.125	1.875	3.00	2.375	1.875	2.00	2.125	2.375	2.375	2.625	2.00	2.50	4.00	4.00	3.50	1.75	1.875	1.75
	2.00	2.25	2.125	1.875	1.625	1.875	2.50	1.625	1.875	2.50	2.50	3.00	3.875	4.50	3.50	1.875	1.50	2.75
	2.375	1.50	2.50	1.625	1.875	2.125	2.375	1.75	3.375	3.00	2.50	2.625	2.50	3.50	4.50	1.375	1.625	2.00
Totals	118.375	119.25	118.375	96.125	95.125	94.875	119.500	120.50	126.500	127.750	124.875	122.875	178.375	185.625	176.875	101.50	92.00	94.125

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Highest	B′	3.50	1.3779	B′	2.50	0.9842	B′	4.125	1.6240	B′	4.00	1.5748	B′	5.00	1.9685	B′	2.75	1.0826
	B″	3.875	1.5255	B″	3.00	1.1811	B″	3.50	1.3779	B″	4.00	1.5748	B″	4.75	1.8700	B″	2.50	0.9842
	B‴	3.625	1.4271	B‴	2.50	0.9842	B‴	4.00	1.5748	B‴	3.25	1.2795	B‴	5.00	1.9685	B‴	2.75	1.0826
Highest		3.875	1.5255		3.00	1.1811		4.125	1.6240		4.00	1.5748		5.00	1.9685		2.75	1.0826
Lowest	B′	1.25	0.4921	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.625	0.6397	B′	2.00	0.7874	B′	1.375	0.5413
	B″	1.50	0.5905	B″	1.50	0.5905	B″	1.50	0.5905	B″	1.75	0.6890	B″	1.75	0.6890	B″	1.375	0.5413
	B‴	1.50	0.5905	B‴	1.50	0.5905	B‴	1.625	0.6397	B‴	1.875	0.7380	B‴	2.00	0.7874	B‴	1.25	0.4921
Lowest		1.25	0.4921		1.50	0.5905		1.50	0.5905		1.625	0.6397		1.75	0.6890		1.25	0.4921
Average	B′	2.367	0.9318	B′	1.922	0.7566	B′	2.390	0.9409	B′	2.553	1.0050	B′	3.568	1.4047	B′	2.03	0.7992
	B″	2.388	0.9389	B″	1.903	0.7492	B″	2.53	0.9960	B″	2.498	0.9834	B″	3.713	1.4618	B″	1.84	0.7244
	B‴	2.367	0.9318	B‴	1.897	0.7468	B‴	2.53	0.9960	B‴	2.458	0.9677	B‴	3.537	1.3925	B‴	1.883	0.7413
Average		2.373	0.9342		1.907	0.7507		2.48	0.9763		2.503	0.9854		3.60	1.4015		1.905	0.7499
Measurements above average..			80			58			74			54			77			77
Measurements below average..			70			92			76			96			73			73

TABLE IX.—*Measurements of fineness of thoroughbred Merino wools, crossbred series, &c.*—Continued.

RAMS.

Catalogue number of sample...	819.			820.			821.			822.			823.			824.		
	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.375	3.00	1.625	2.50	1.50	1.875	2.50	4.00	4.00	2.00	2.875	2.00	2.75	1.75	2.00	1.875	2.25	1.875
	2.75	2.00	1.375	2.75	2.875	1.50	2.75	2.50	2.25	2.25	2.50	2.50	1.875	2.50	2.00	2.00	1.75	2.125
	1.75	1.875	1.50	3.75	2.25	1.625	2.50	2.00	1.375	3.50	2.25	2.25	3.00	2.00	2.00	2.125	1.875	2.625
	1.625	2.00	1.50	2.50	2.125	1.75	3.00	2.00	2.50	1.875	2.00	1.875	2.50	2.25	2.25	2.00	2.00	1.625
	1.625	1.75	1.625	2.25	2.00	1.50	3.125	1.625	3.50	2.00	2.25	2.375	2.25	2.375	1.375	1.875	1.375	2.50
	2.00	1.875	1.75	2.875	1.875	3.50	3.25	3.75	2.00	1.875	2.50	1.625	1.375	1.875	2.125	1.75	2.00	1.625
	2.125	2.125	2.00	1.875	2.25	3.50	3.875	2.50	2.00	2.50	2.375	2.50	2.50	1.50	2.50	1.75	1.50	1.50
	2.25	2.25	1.875	3.25	2.125	1.50	3.75	2.00	2.25	3.125	2.375	1.50	3.125	1.625	1.875	3.00	2.00	1.875
	2.625	2.00	1.50	2.00	2.50	1.50	2.875	1.50	1.375	3.25	2.00	1.625	2.50	1.75	2.125	2.75	2.25	1.375
	2.00	1.75	1.50	1.875	2.50	1.875	2.50	1.625	2.00	4.25	2.50	2.125	2.25	2.00	2.25	1.875	2.50	2.00
	1.75	2.25	1.50	3.75	2.375	2.50	3.75	2.00	1.625	3.625	2.50	2.125	2.50	2.125	2.00	1.625	2.375	2.50
	1.875	2.25	1.50	2.25	1.50	1.75	4.125	1.875	4.50	3.25	2.25	2.125	3.50	2.125	2.125	2.00	1.75	1.875
	1.50	2.00	2.50	2.25	1.75	1.875	2.25	2.00	3.00	3.375	2.375	1.875	2.25	2.00	1.75	3.00	2.375	1.625
	2.00	2.00	2.125	2.00	1.875	2.00	3.50	1.75	2.00	3.25	2.50	2.375	3.00	2.00	2.00	2.25	2.125	1.50
	2.25	1.75	2.00	2.50	2.00	1.875	3.75	2.25	3.00	3.50	2.625	2.00	2.375	2.00	1.875	2.375	2.00	2.00
	2.625	2.125	2.125	2.25	2.00	2.00	2.75	2.00	2.00	3.00	2.375	2.00	2.00	2.25	2.00	2.00	2.00	1.875
	2.625	1.875	1.75	1.875	2.00	2.75	2.875	2.00	2.00	3.00	2.25	2.75	2.00	1.125	2.50	2.125	2.25	2.75
	2.00	2.50	1.875	2.25	1.875	1.75	2.125	2.25	2.50	3.125	2.50	1.50	1.875	2.00	3.00	3.00	1.875	1.625
	1.875	2.00	1.625	2.375	2.50	2.00	4.00	1.75	2.75	2.50	2.50	1.875	2.50	2.00	2.00	2.00	2.00	1.50
	2.00	2.00	2.25	2.00	2.00	1.875	2.50	1.875	2.375	2.125	2.50	3.375	2.00	1.875	2.00	2.125	1.75	2.625
	2.50	2.375	2.125	2.25	2.50	1.75	2.125	2.00	2.50	2.50	2.375	2.375	1.75	2.125	2.50	1.875	2.00	2.50
	2.50	2.00	2.00	2.125	1.875	2.375	3.625	2.50	2.50	2.50	2.375	2.00	3.25	2.25	2.00	2.50	2.00	2.75
	2.00	1.75	1.75	2.25	1.875	1.875	2.625	1.75	3.00	2.50	2.25	1.875	1.50	2.00	2.625	2.125	2.00	2.625
	1.75	1.875	2.00	4.00	2.00	2.00	2.75	2.00	2.75	2.25	2.50	2.00	2.00	1.875	2.875	2.625	2.00	1.375
	1.875	2.125	2.00	1.875	1.875	1.875	1.625	2.00	2.875	3.00	2.25	2.125	2.00	1.75	2.125	2.375	2.00	2.125
	2.00	2.00	2.125	2.375	2.00	1.50	2.00	1.50	3.50	2.50	1.875	1.875	2.50	1.625	2.00	2.125	1.625	2.50
	1.50	2.50	1.75	1.75	1.75	2.125	3.75	1.50	2.625	3.125	2.00	3.00	3.25	1.75	3.25	1.875	2.50	1.875
	2.75	2.25	1.875	2.75	1.375	3.50	4.50	1.75	3.00	2.50	2.50	2.00	2.25	2.00	2.00	2.00	1.25	2.00
	2.50	1.875	2.00	2.50	2.25	2.25	4.00	3.00	3.25	2.50	2.125	2.125	2.625	2.25	1.625	2.00	2.00	2.375
	2.00	1.75	2.50	2.25	2.00	2.00	2.75	2.25	2.125	2.50	2.25	2.00	2.50	2.00	2.375	1.50	1.875	2.125
	2.125	2.125	1.75	2.25	1.375	1.50	2.625	2.50	2.75	3.125	2.375	2.375	3.25	1.625	2.375	1.00	2.125	1.875
	1.50	1.875	2.50	1.875	2.125	2.00	2.00	3.50	4.00	3.00	2.625	2.50	2.25	1.75	2.625	3.00	2.50	2.25
	2.00	1.75	2.00	2.375	2.00	1.875	2.125	3.00	2.50	3.625	2.50	2.25	2.00	2.00	2.00	2.125	2.75	2.75
	2.25	2.50	1.625	2.375	1.75	1.625	3.75	2.00	2.50	3.625	1.875	1.875	2.00	2.00	2.625	2.50	2.25	1.875
	3.00	2.25	2.625	2.625	1.875	2.00	2.50	2.50	2.875	2.75	2.00	2.50	2.50	2.50	2.375	2.125	2.375	1.50
	3.125	2.25	1.50	2.25	2.00	1.875	3.25	2.125	4.25	3.00	2.50	2.00	2.375	2.375	2.00	3.00	2.00	1.625
	2.00	2.50	2.50	2.625	2.00	1.50	2.625	2.25	2.375	3.00	2.50	1.875	2.50	1.875	2.50	2.00	2.00	1.875
	2.00	1.625	1.75	1.875	1.50	2.25	2.875	5.00	2.25	2.125	2.25	1.75	2.50	2.125	2.75	2.125	1.875	1.75
	2.00	1.75	2.25	3.25	1.875	1.625	4.00	1.875	3.50	2.125	2.375	2.50	2.50	2.25	2.375	2.50	1.875	1.25
	1.375	1.875	1.50	1.875	1.75	1.75	3.375	4.00	1.625	2.875	2.625	1.875	2.875	2.00	1.50	2.00	1.75	2.25
	1.50	2.00	1.625	2.625	2.50	1.875	3.25	3.50	2.00	2.75	2.75	2.00	2.00	1.75	2.125	2.125	1.75	2.00
	2.50	1.625	2.375	1.875	2.125	1.50	2.625	2.00	2.00	2.75	3.00	2.00	2.125	2.50	1.875	1.625	1.75	1.875
	2.375	2.25	2.00	3.00	2.50	1.50	2.00	2.50	2.50	2.50	2.50	1.875	2.375	2.00	2.50	2.50	2.00	2.375
	2.25	2.00	1.75	2.00	2.625	1.625	2.375	2.125	1.75	3.00	2.50	2.125	2.125	2.25	2.00	2.75	2.00	1.625
	2.375	1.625	2.00	1.875	1.50	2.00	2.50	1.75	3.50	4.00	3.25	1.75	2.25	1.75	2.00	3.50	1.875	2.125
	1.50	2.50	2.125	1.75	2.25	1.625	2.375	2.00	3.25	2.125	2.00	2.125	2.00	2.00	2.125	2.00	2.125	1.875
	1.875	2.375	1.75	2.25	2.375	1.375	2.75	2.25	2.50	2.50	3.00	1.875	2.50	2.125	2.25	2.50	2.50	1.625
	2.25	2.25	1.875	2.50	2.00	2.00	3.00	2.375	2.875	2.50	2.25	1.875	2.50	3.00	2.00	1.875	2.375	1.875
	1.625	2.00	1.75	2.50	1.75	1.375	2.75	3.00	2.00	2.50	2.50	2.50	2.125	2.25	2.00	1.625	1.625	2.00
	2.50	1.75	2.00	2.50	2.125	2.00	3.375	2.00	2.50	2.375	2.00	2.00	2.50	2.125	2.125	2.00	1.50	2.375
Totals	105.125	102.75	94.875	119.50	101.375	96.625	147.625	115.75	130.625	139.50	118.875	105.375	119.00	108.00	109.25	110.375	100.25	99.00

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Highest	B′	3.125	1.2303	B′	4.00	1.5748	B′	4.50	1.7716	B′	4.25	1.6732	B′	3.50	1.3779	B′	3.50	1.3779
	B″	3.00	1.1811	B″	2.875	1.1318	B″	5.00	1.9685	B″	3.00	1.1811	B″	3.00	1.1811	B″	2.75	1.0826
	B‴	2.625	1.0334	B‴	3.50	1.3779	B‴	4.50	1.7716	B‴	3.375	1.3287	B‴	3.25	1.2795	B‴	2.75	1.0826
Highest		3.125	1.2303		4.00	1.5748		5.00	1.9685		4.25	1.6732		3.50	1.3779		3.50	1.3779
Lowest	B′	1.375	0.5413	B′	1.75	0.6889	B′	1.625	0.6397	B′	1.875	0.7380	B′	1.375	0.5413	B′	1.50	0.5905
	B″	1.625	0.6397	B″	1.375	0.5413	B″	1.50	0.5905	B″	1.875	0.7380	B″	1.50	0.5905	B″	1.25	0.4921
	B‴	1.375	0.5413	B‴	1.375	0.5413	B‴	1.375	0.5413	B‴	1.50	0.5905	B‴	1.375	0.5413	B‴	1.25	0.4921
Lowest		1.375	0.5413		1.375	0.5413		1.375	0.5413		1.50	0.5905		1.375	0.5413		1.25	0.4921
Average	B′	2.103	0.8279	B′	2.39	0.9409	B′	2.953	1.1625	B′	2.79	1.0984	B′	2.38	0.9370	B′	2.208	0.8692
	B″	2.055	0.8090	B″	2.028	0.7984	B″	2.315	0.9114	B″	2.378	0.9362	B″	2.16	0.8503	B″	2.005	0.7893
	B‴	1.898	0.7472	B‴	1.933	0.7610	B‴	2.613	1.0287	B‴	2.108	0.8299	B‴	2.185	0.8602	B‴	1.980	0.7795
Average		2.018	0.7944		2.117	0.8334		2.627	1.0342		2.425	0.9547		2.241	0.8822		2.064	0.8125
Measurements above average		55			63			59			73			65			61	
Measurements below average		93			87			91			77			85			89	

TABLE IX.—*Measurements of fineness of thoroughbred Merino wools, crossbred series, &c.*—Continued.

	RAMS.									EWES.								
Catalogue number of sample...	825.			826.			827.			788.			789.			790.		
	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.00	2.00	2.50	2.50	1.50	2.00	1.875	3.00	1.50	2.125	2.00	2.00	2.25	2.00	1.625	2.25	3.00	3.00
	2.00	2.125	2.50	2.00	2.00	1.875	2.00	2.00	1.625	3.00	2.25	1.875	1.75	1.75	2.25	2.50	2.375	1.75
	1.50	2.125	1.75	1.875	2.25	1.625	2.00	2.50	1.125	2.50	2.625	2.125	2.50	2.75	1.875	1.25	2.50	3.50
	2.00	1.875	1.50	1.625	2.125	1.625	1.875	2.25	1.50	2.00	2.00	1.50	1.625	2.375	1.375	2.50	2.125	2.50
	1.875	2.125	1.625	1.625	2.00	2.125	1.875	2.125	1.75	2.25	2.00	1.625	2.00	2.00	1.50	2.00	2.375	3.25
	2.00	2.375	2.50	2.00	1.75	1.375	2.375	2.00	1.875	2.00	2.375	1.75	2.625	2.75	1.625	1.875	2.00	2.375
	2.375	2.625	1.75	1.75	2.00	1.50	1.875	3.00	2.00	1.875	2.00	1.875	2.50	2.50	1.50	1.50	2.50	2.25
	2.00	2.00	2.375	2.00	2.00	2.50	1.625	3.50	1.50	1.625	1.50	2.00	2.00	2.50	1.875	1.625	2.00	2.125
	2.00	1.75	2.00	2.00	1.875	1.50	1.625	1.625	1.50	2.25	1.875	1.875	2.375	2.00	2.00	2.125	2.00	2.50
	2.50	2.50	2.25	1.875	2.00	1.375	1.875	1.50	1.75	1.75	2.00	1.625	1.625	2.00	1.50	2.00	2.375	2.00
	2.125	2.00	1.875	1.75	2.25	1.375	2.50	3.00	1.50	1.875	2.25	1.75	2.25	2.50	1.50	2.75	2.00	1.875
	2.00	2.00	2.25	1.625	2.125	1.50	3.25	2.00	1.50	2.00	1.875	2.125	2.375	2.25	1.625	2.25	2.00	2.50
	2.50	2.25	1.875	2.125	1.875	1.50	2.375	2.25	2.125	2.00	2.00	2.125	1.625	2.00	1.375	2.375	2.50	2.25
	2.75	2.50	2.50	2.00	2.00	2.375	2.00	2.50	2.00	2.50	1.50	1.875	2.625	2.00	1.25	2.50	2.00	2.625
	2.375	2.50	2.00	2.125	1.875	1.50	1.50	2.75	2.875	2.00	2.00	2.50	2.00	2.50	2.25	1.50	2.125	2.375
	2.00	2.25	2.00	2.50	1.75	1.375	2.50	2.50	2.00	2.625	2.375	2.25	2.25	1.875	2.00	1.625	1.875	2.00
	2.00	2.125	1.875	2.00	2.00	2.125	1.875	2.25	2.625	2.25	1.50	2.00	2.00	2.50	1.875	2.00	2.00	1.875
	2.00	2.50	2.875	2.75	2.00	2.125	2.25	2.375	1.50	3.50	1.75	2.00	1.875	2.375	1.75	1.625	2.625	2.00
	2.50	2.75	2.00	1.625	2.125	1.875	2.00	2.00	1.25	2.125	2.125	1.50	2.00	2.50	1.75	2.00	3.00	2.125
	2.50	2.25	2.00	1.875	2.00	1.25	2.125	2.00	1.50	2.50	2.00	1.875	2.00	2.50	2.00	2.125	2.125	2.00
	2.875	3.00	2.50	1.75	2.50	1.50	1.375	1.875	1.625	2.75	2.00	2.00	2.625	2.25	1.875	2.50	2.25	3.50
	2.00	1.75	2.00	2.00	2.375	1.375	1.875	1.50	1.25	2.125	1.25	2.125	2.25	2.00	2.125	3.00	2.375	3.25
	2.50	2.00	2.125	2.50	1.75	2.00	1.875	3.00	1.75	2.25	2.00	2.125	2.25	2.00	1.75	2.625	1.875	2.00
	2.25	1.375	2.50	2.00	1.75	1.625	2.00	2.00	1.50	2.625	1.75	1.50	2.50	3.00	2.50	2.00	1.875	3.00
	2.125	1.75	2.375	2.50	2.50	2.50	1.625	1.50	2.00	3.00	2.00	1.625	1.50	1.75	3.00	1.375	3.00	3.50
	2.50	2.00	1.75	1.75	1.875	1.875	1.875	2.00	2.125	3.125	1.875	4.125	1.875	1.875	2.00	1.75	1.75	2.00
	2.125	1.875	2.125	1.875	1.75	1.75	1.625	2.25	1.75	3.00	2.50	2.25	3.00	1.50	1.75	2.50	2.00	2.625
	2.375	2.125	2.50	2.00	2.00	1.375	2.00	2.50	1.50	2.875	1.875	3.25	2.125	2.625	1.875	1.50	1.875	2.75
	2.50	1.50	2.50	1.625	2.00	2.125	1.50	1.25	1.375	3.25	2.00	2.50	2.25	2.00	2.375	1.625	2.00	3.00
	2.375	1.50	2.00	2.00	2.375	1.375	1.875	1.50	2.00	2.25	3.00	2.375	1.50	3.00	2.00	1.75	2.50	1.75
	2.00	2.50	2.00	2.50	2.00	1.75	1.75	1.375	2.00	1.75	2.75	3.375	2.625	2.25	1.50	2.50	3.00	1.625
	2.50	2.00	1.50	2.50	1.875	2.25	1.975	1.25	2.00	3.00	2.00	1.625	1.875	2.50	1.50	2.00	2.00	2.50
	2.00	2.125	2.375	2.375	2.375	1.625	2.125	2.875	1.625	3.125	1.75	2.125	2.125	2.00	2.25	2.25	1.75	2.625
	2.00	1.75	2.125	2.00	2.50	2.375	1.50	1.50	1.50	2.875	1.875	3.25	2.00	2.75	3.00	1.50	3.00	3.25
	2.125	2.25	1.625	2.125	2.625	1.75	2.375	3.00	1.75	1.75	2.75	2.50	2.25	2.50	2.25	1.375	2.75	2.00
	1.875	2.125	1.50	1.875	2.00	1.50	2.375	3.50	1.50	2.25	1.875	2.50	2.375	2.25	1.50	1.50	3.00	2.25
	2.25	2.50	1.75	2.50	2.125	1.875	1.875	2.00	2.125	3.50	2.50	2.125	2.50	3.00	2.125	2.00	2.50	3.00
	2.50	2.00	1.75	2.00	1.875	2.00	2.00	2.50	1.50	3.50	2.75	2.00	1.875	2.00	1.625	1.75	2.00	1.50
	2.50	1.875	2.625	1.75	2.00	2.00	1.875	2.75	1.50	2.50	2.00	2.75	2.75	2.00	2.00	1.875	2.00	1.75
	1.875	1.50	1.875	2.50	2.25	1.625	1.50	2.25	1.50	2.25	1.75	2.875	2.75	2.00	1.50	1.875	3.00	2.00
	2.20	2.00	1.625	2.50	2.375	1.375	2.375	2.75	1.625	2.125	1.50	1.625	2.50	2.00	1.25	2.75	2.20	3.00
	2.375	1.50	1.875	2.00	2.00	1.875	1.50	1.50	1.75	3.00	2.00	1.875	2.625	2.00	1.625	1.50	1.875	2.125
	1.50	1.50	2.375	2.00	2.00	1.875	1.50	1.625	1.375	2.875	1.50	1.50	2.00	2.625	2.00	2.625	2.00	2.75
	1.375	1.875	2.50	1.75	1.875	2.125	1.875	1.75	1.125	3.00	2.00	1.875	3.00	2.50	2.125	1.875	2.50	2.50
	2.00	2.125	1.875	1.875	2.375	1.625	2.125	2.00	1.50	2.50	2.50	2.75	2.875	2.25	2.75	2.00	2.00	2.125
	2.50	2.125	1.125	1.75	2.25	1.875	1.875	2.00	1.50	2.25	2.375	1.75	1.50	3.00	2.50	3.00	2.00	2.50
	2.50	1.75	2.00	1.625	2.25	1.50	1.875	1.875	2.00	2.625	1.875	2.00	2.50	2.50	2.625	2.75	2.75	3.00
	2.375	2.375	1.875	1.625	1.625	1.75	2.50	2.125	1.50	2.125	2.00	2.50	2.00	2.75	2.375	1.625	2.125	2.375
	2.375	2.50	2.00	1.375	2.50	2.375	2.00	2.25	2.625	2.25	1.50	3.25	1.75	2.375	2.375	1.50	3.25	2.25
	2.50	1.75	2.00	1.625	1.875	1.875	2.00	1.625	2.375	2.00	2.50	3.625	2.25	2.625	2.00	1.375	3.00	3.00
Totals	109.75	102.625	102.25	99.875	102.625	89.00	99.25	108.50	85.25	123.25	103.00	109.875	108.75	117.25	96.125	103.625	113.00	120.375

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Highest	B′	2.875	1.1318	B′	2.75	1.0826	B′	3.25	1.2795	B′	3.50	1.3779	B′	3.00	1.1811	B′	3.00	1.1811
	B″	3.00	1.1811	B″	2.625	1.0334	B″	3.50	1.3779	B″	3.00	1.1811	B″	3.00	1.1811	B″	3.00	1.1811
	B‴	2.875	1.1318	B‴	2.50	0.9842	B‴	2.625	1.0334	B‴	4.125	1.6240	B‴	3.00	1.1811	B‴	3.50	1.3779
Highest		3.00	1.7811		2.75	1.0826		3.50	1.3779		4.125	1.6240		3.00	1.1811		3.50	1.3779
Lowest	B′	1.875	0.5413	B′	1.375	0.5413	B′	1.375	0.5413	B′	1.625	0.6397	B′	1.50	0.5905	B′	1.25	0.4921
	B″	1.50	0.5905	B″	1.50	0.5905	B″	1.25	0.4921	B″	1.25	0.4921	B″	1.50	0.5905	B″	1.75	0.6889
	B‴	1.125	0.4429	B‴	1.25	0.4921	B‴	1.125	0.4429	B‴	1.50	0.5905	B‴	1.25	0.4921	B‴	1.50	0.5905
Lowest		1.125	0.4429		1.25	0.4921		1.125	0.4429		1.25	0.4921		1.25	0.4921		1.25	0.4921
Average	B′	2.105	0.8641	B′	1.998	0.7866	B′	1.985	0.7814	B′	2.465	0.9705	B′	2.175	0.8562	B′	2.013	0.7925
	B″	2.053	0.8082	B″	2.053	0.8082	B″	2.17	0.8543	B″	2.09	0.8110	B″	2.345	0.9232	B″	2.30	0.9055
	B‴	2.043	0.8051	B‴	1.78	0.7007	B‴	1.705	0.6712	B‴	2.198	0.8653	B‴	1.923	0.7570	B‴	2.328	0.9052
Average		2.098	0.8259		1.943	0.7649		1.953	0.7688		2.241	0.8822		2.147	0.8452		2.280	0.8976
Measurements above average			72			78			72			85			89			67
Measurements below average			78			72			78			85			81			83

TABLE IX.—*Measurements of fineness of thoroughbred Merino wools, crossbred series, &c.*—Continued.

EWES.

Catalogue number of sample...	791.			792.			793.			794.			795.			796.		
	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.875	1.75	2.25	2.25	2.50	3.00	2.00	1.75	1.50	2.00	1.50	2.625	2.625	1.50	2.50	2.625	2.00	1.75
	2.00	1.75	2.125	2.00	2.00	2.00	2.75	1.75	1.625	2.375	1.75	2.00	2.375	1.75	1.375	2.00	1.875	2.00
	2.00	2.50	2.25	2.375	1.75	2.125	2.125	1.875	2.00	1.50	1.875	1.875	2.125	2.00	1.875	2.00	1.625	2.125
	2.00	2.00	2.125	2.125	2.25	2.375	2.00	2.75	2.125	2.00	1.50	1.875	2.125	2.25	1.625	2.125	1.75	1.625
	2.625	1.50	2.00	3.25	2.875	2.00	2.00	1.50	1.75	2.125	2.00	2.50	2.25	2.50	2.875	2.25	2.50	1.75
	2.00	2.00	2.75	2.00	2.25	2.00	2.125	2.00	1.875	2.25	2.00	1.50	2.00	2.00	2.50	1.875	1.375	1.375
	1.875	2.50	2.00	2.125	2.25	1.50	2.25	1.50	2.25	2.00	2.00	2.00	2.00	2.00	2.00	2.125	1.50	1.50
	1.50	2.75	2.125	2.75	2.00	1.625	2.00	2.00	2.375	2.25	1.625	2.50	2.50	1.375	2.50	1.75	1.50	2.00
	1.625	2.00	1.625	2.875	1.50	2.375	1.75	2.75	1.875	2.125	1.625	1.75	1.875	2.00	2.75	1.875	1.375	2.125
	2.25	2.125	3.50	2.50	2.50	1.50	1.875	2.50	1.875	2.125	2.00	1.875	2.00	2.00	1.50	1.875	1.125	1.625
	1.875	1.50	2.00	2.00	2.00	2.00	3.00	1.75	1.875	2.00	1.625	1.875	2.00	2.00	2.00	2.00	1.375	1.875
	2.25	1.50	2.25	2.125	1.50	2.00	2.75	3.00	2.00	2.25	1.625	2.125	2.50	2.25	1.75	2.125	1.875	1.50
	2.625	2.125	2.50	2.00	2.00	2.125	2.625	2.25	2.75	2.25	1.75	2.00	2.50	1.875	1.875	2.125	1.25	2.00
	1.50	1.50	2.375	2.00	2.75	1.875	2.50	2.00	2.50	2.375	2.625	1.625	2.125	2.00	1.875	1.50	1.25	1.625
	1.625	2.25	2.50	2.25	2.00	2.25	2.375	1.875	2.00	2.375	2.00	1.875	2.50	1.50	1.75	1.625	2.00	2.50
	2.75	1.625	2.625	2.875	2.50	2.00	2.00	2.00	1.625	1.75	2.00	2.125	1.75	2.00	1.625	1.75	2.00	2.50
	2.375	2.25	1.875	2.75	2.375	3.25	2.00	2.50	2.00	1.50	1.75	1.625	2.50	2.50	2.50	1.375	1.50	1.50
	2.875	1.625	2.00	2.50	2.00	3.00	1.75	2.375	2.125	2.00	1.875	1.875	2.25	2.00	2.25	1.75	1.625	2.375
	2.75	1.625	2.125	2.00	1.625	2.25	1.875	1.50	1.50	2.50	2.00	2.125	2.125	1.50	2.50	1.50	1.50	1.75
	2.00	1.875	2.00	2.125	2.375	2.00	2.00	1.75	1.75	2.375	1.875	2.00	2.25	1.75	1.875	2.25	1.625	1.875
	2.125	1.625	3.125	1.50	2.00	1.875	1.75	1.875	1.875	1.50	1.50	1.875	2.125	1.75	1.75	1.375	1.50	1.625
	2.00	2.00	2.875	1.625	2.00	2.00	3.50	2.25	2.25	1.875	1.75	2.00	1.875	2.00	2.375	1.50	1.375	1.75
	2.00	1.875	2.75	2.125	1.75	1.75	1.75	2.125	2.375	2.125	2.00	2.00	2.125	2.00	2.50	1.875	2.00	1.625
	1.875	2.00	1.75	1.50	2.50	1.50	2.25	2.00	2.25	2.375	1.50	1.625	2.50	1.75	2.375	2.00	1.50	1.75
	2.00	2.25	1.50	1.75	2.625	1.75	2.00	1.75	2.375	2.50	2.00	1.875	2.75	1.75	2.75	1.875	2.00	1.875
	3.00	1.50	1.625	1.125	2.00	2.125	1.875	2.625	1.50	2.125	2.00	2.00	2.125	2.00	2.125	2.25	1.50	1.50
	2.50	1.75	1.75	3.00	2.00	2.25	1.625	2.125	1.625	2.375	2.00	1.875	2.00	1.75	3.00	3.00	1.125	2.25
	2.00	2.00	2.00	3.00	2.00	2.25	1.75	2.125	1.75	2.75	1.625	2.50	1.50	2.00	2.25	1.875	1.875	1.625
	1.375	2.00	2.00	2.125	2.00	2.125	2.00	2.50	2.00	2.50	2.25	2.00	2.00	1.875	2.875	2.25	1.875	2.125
	2.50	2.50	3.00	2.75	1.50	2.50	2.125	2.50	2.125	2.125	1.625	2.375	2.125	2.00	2.25	1.50	2.00	1.875
	2.25	2.00	3.125	1.625	2.25	1.75	2.125	1.50	1.75	2.00	1.75	1.625	2.00	2.00	2.375	2.00	1.375	1.625
	2.50	1.75	2.75	2.00	2.375	1.75	1.75	1.75	1.875	2.125	1.75	1.875	2.00	1.375	2.25	2.00	1.50	2.50
	3.00	1.625	2.50	2.125	2.00	2.50	1.75	3.00	2.00	2.50	2.375	2.00	2.125	2.00	2.25	1.75	2.00	2.375
	1.50	2.00	2.375	2.25	2.875	2.50	2.125	2.125	2.00	2.50	2.00	2.00	2.875	1.375	2.00	2.125	1.875	2.00
	2.25	1.50	2.00	2.875	2.00	2.25	2.50	1.875	2.50	2.00	1.75	1.875	1.50	2.00	2.25	1.75	2.00	1.875
	2.375	2.00	1.875	2.25	2.00	2.25	2.75	2.00	1.875	2.125	1.50	1.875	2.00	1.75	2.50	2.625	1.75	1.875
	2.50	1.875	2.00	1.50	2.25	2.50	2.375	2.125	1.875	2.50	1.625	2.00	2.50	2.00	2.00	2.00	2.00	2.125
	1.375	2.00	2.50	2.375	2.25	2.625	1.875	2.00	2.125	2.125	2.00	3.00	2.125	1.875	1.875	2.50	2.50	1.875
	2.25	2.50	1.75	1.625	3.00	1.50	2.00	3.00	1.50	1.875	2.25	3.00	2.50	2.125	2.50	2.375	1.50	1.625
	2.00	1.875	1.50	2.50	2.50	2.00	2.25	2.50	1.75	1.50	1.875	1.75	2.875	2.00	1.75	1.375	1.50	2.50
	2.25	2.00	1.50	2.75	2.00	1.50	1.50	2.00	2.50	2.50	1.75	2.50	2.00	1.625	2.25	2.00	1.875	1.875
	2.375	2.50	1.50	3.125	2.25	2.25	2.50	1.875	2.00	1.875	2.00	1.75	3.00	1.875	2.375	2.25	1.75	1.75
	2.50	1.75	3.25	2.00	2.50	2.375	2.50	1.75	2.25	2.625	2.00	2.00	2.75	1.50	2.50	2.375	2.00	1.50
	2.50	2.00	3.00	2.00	2.00	2.50	2.00	1.50	2.50	2.00	2.50	2.00	2.125	1.75	2.00	2.00	2.00	1.50
	1.625	1.50	2.75	2.25	3.25	2.625	2.125	2.125	1.50	2.25	1.50	2.50	2.50	2.00	1.875	2.75	1.375	1.50
	2.625	2.50	2.875	2.125	2.50	2.50	1.875	2.00	1.625	2.25	1.625	1.875	2.50	1.50	2.375	1.625	1.50	2.625
	2.00	1.625	2.50	2.125	2.00	1.75	2.50	1.625	2.00	2.00	1.625	1.625	1.875	2.50	2.25	1.875	2.00	1.875
	2.00	3.00	3.00	2.00	2.00	2.25	1.50	1.75	2.25	2.375	1.50	2.50	2.00	2.00	2.375	1.75	2.00	1.50
	1.875	2.00	2.00	1.875	1.75	2.00	2.25	2.00	2.00	2.375	2.00	1.875	2.125	1.50	2.125	2.125	1.50	1.50
	1.625	2.25	1.75	2.125	2.00	2.125	2.375	2.00	2.375	1.75	1.875	2.00	2.375	1.50	1.875	2.375	2.00	1.875
Totals	107.125	98.50	113.875	110.875	109.125	106.875	107.00	103.75	99.750	107.625	92.25	100.500	111.250	98.875	108.50	99.625	85.375	92.250

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Highest	B′	3.00	1.1811	B′	3.25	1.2795	B′	3.50	1.3779	B′	2.75	1.0826	B′	3.00	1.1811	B′	3.00	1.1811
	B″	3.00	1.1811	B″	3.25	1.2795	B″	3.00	1.1811	B″	2.625	1.0326	B″	2.50	0.9842	B″	2.50	0.9842
	B‴	3.50	1.3779	B‴	3.25	1.2795	B‴	2.75	1.0826	B‴	3.00	1.1811	B‴	3.00	1.1811	B‴	2.625	1.0334
Highest		3.50	1.3779		3.25	1.2795		3.50	1.3779		3.00	1.1811		3.00	1.1811		3.00	1.1811
Lowest	B′	1.375	0.5413	B′	1.125	1.4429	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.375	0.5413
	B″	1.50	0.5905	B″	1.50	0.5905	B″	1.50	0.5905	B″	1.50	0.5905	B″	1.375	0.5413	B″	1.125	0.4429
	B‴	1.50	0.5905	B‴	1.50	0.5905	B‴	1.50	0.5905	B‴	1.50	0.5905	B‴	1.375	0.5413	B‴	1.375	0.5413
Lowest		1.375	0.5413		1.50	0.5905		1.50	0.5905		1.50	0.5905		1.375	0.5413		1.125	0.4429
Average	B′	2.143	0.8436	B′	2.208	0.8692	B′	2.14	0.8425	B′	2.153	0.8476	B′	2.225	0.8750	B′	1.993	0.7846
	B″	1.97	0.7755	B″	2.163	0.8504	B″	2.075	0.8161	B″	1.85	0.7283	B″	1.878	0.7393	B″	1.707	0.6720
	B‴	2.278	0.8968	B‴	2.138	0.8417	B‴	1.995	0.7854	B‴	2.01	0.7913	B‴	2.17	0.8543	B‴	1.845	0.7263
Average		2.130	0.8385		2.176	0.8566		2.07	0.8149		2.004	0.7889		2.091	0.8232		1.848	0.7275
Measurements above average			59			66			62			50			70			53
Measurements below average			91			71			88			100			80			97

TABLE IX.—*Measurements of fineness of thoroughbred Merino wools, crossbred series, &c.*—Continued.

	EWES.			RAMS.						EWES.								
Catalogue number of sample...	797.			434.			433.			798.			799.			800.		
	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.375	1.50	1.875	3.00	3.00	2.75	3.00	4.50	2.75	2.25	2.00	3.00	2.625	3.00	3.50	2.625	2.50	2.25
	1.875	2.375	1.625	2.75	2.75	2.375	1.25	3.25	3.00	1.50	1.625	3.125	2.50	1.75	3.50	3.00	2.875	2.50
	2.125	1.375	2.00	3.00	2.00	3.00	2.50	3.00	4.00	1.625	2.00	1.00	3.25	2.50	3.50	3.00	2.625	1.50
	2.25	1.875	1.75	3.00	2.50	2.00	2.50	3.25	2.00	1.75	3.25	2.50	2.25	3.00	2.50	1.50	3.25	2.00
	1.875	2.00	2.00	2.00	2.00	2.25	3.00	3.50	3.50	2.00	3.00	1.50	1.75	3.00	2.625	2.375	2.625	1.50
	1.875	1.625	2.00	2.50	2.50	2.00	2.00	3.75	3.75	2.00	2.375	1.50	2.50	2.50	1.75	2.125	2.00	2.00
	2.125	1.75	2.00	2.50	3.25	1.50	2.75	2.625	3.50	1.75	1.625	1.50	2.00	1.875	2.25	1.75	2.50	1.75
	2.125	1.625	1.875	3.00	3.00	3.00	2.50	2.50	2.50	1.50	1.50	1.25	2.00	1.50	3.125	1.50	3.00	2.25
	2.375	1.625	1.625	2.625	3.00	2.00	3.00	2.00	3.00	1.50	1.75	1.75	2.375	3.00	1.50	1.50	2.50	1.50
	2.00	2.00	2.75	2.50	3.25	1.625	2.50	3.25	2.25	1.75	2.50	1.50	2.25	3.50	2.25	1.50	2.75	2.00
	1.625	1.75	2.50	2.50	3.50	3.00	3.00	3.25	3.125	1.625	2.00	2.00	2.25	2.00	1.50	1.625	3.50	1.75
	1.625	2.00	1.875	2.50	2.50	1.625	2.50	2.25	3.375	1.50	2.25	2.25	2.50	1.875	1.50	2.50	2.75	1.625
	1.875	1.75	1.625	2.50	3.00	2.00	2.625	3.00	3.00	2.125	2.50	1.75	2.75	2.50	1.75	2.375	2.625	1.625
	1.625	1.75	2.215	2.75	3.00	1.75	3.00	3.00	3.00	3.00	2.00	1.25	1.75	2.00	2.50	2.375	2.125	1.25
	2.00	1.75	2.00	2.50	3.00	2.25	2.50	3.00	3.00	2.25	2.25	2.00	1.75	3.00	4.00	2.00	3.00	2.00
	2.00	1.50	2.50	2.25	2.75	3.25	2.50	2.50	2.50	3.00	2.125	1.50	1.50	1.875	2.00	2.00	1.75	1.75
	2.375	1.50	1.875	2.00	2.50	3.375	2.25	2.00	3.50	2.00	1.50	1.625	2.00	2.875	3.00	2.50	2.75	2.00
	2.00	1.50	1.50	2.375	2.25	2.50	2.50	2.375	3.00	3.00	2.125	1.50	2.125	2.00	1.75	1.75	2.75	2.25
	1.875	1.375	2.375	2.25	3.00	1.625	2.50	2.50	3.50	2.00	1.625	1.875	2.00	2.125	2.00	1.75	3.00	2.75
	2.00	2.00	2.75	2.625	3.00	2.375	2.25	3.625	3.50	1.50	1.50	1.875	2.50	2.00	1.50	2.625	2.50	3.00
	2.25	1.625	2.125	2.625	2.25	2.00	2.50	3.25	3.875	2.125	1.75	1.50	2.625	2.50	1.75	2.125	3.00	1.00
	2.375	2.375	2.00	2.00	3.00	3.00	2.00	3.25	3.00	1.625	2.00	2.25	2.00	1.75	1.50	2.125	2.625	1.50
	2.125	2.00	2.50	2.50	2.50	2.25	3.00	3.875	3.00	1.875	2.00	1.50	2.25	2.50	1.625	1.50	1.875	2.25
	1.875	1.50	2.25	2.00	1.875	2.00	2.625	3.00	3.00	2.25	2.75	2.50	2.25	2.00	1.75	2.50	2.50	2.375
	1.75	1.50	2.875	3.00	2.50	3.75	3.00	3.00	4.00	2.00	2.00	2.375	3.00	2.625	2.50	3.00	2.00	1.75
	2.375	1.50	2.375	2.50	2.50	1.875	2.50	3.00	2.50	1.75	2.00	1.25	4.00	1.75	2.50	2.375	2.25	2.50
	1.75	1.50	1.875	2.25	3.125	2.50	3.125	3.50	3.00	1.625	1.875	2.00	2.25	2.00	2.75	1.50	2.00	2.75
	1.875	1.625	2.125	2.00	1.75	2.50	2.875	2.125	5.00	1.50	1.75	1.875	2.00	2.00	1.75	3.25	2.50	3.00
	1.625	1.50	1.75	2.75	3.00	2.00	2.125	3.75	3.50	2.00	2.25	2.625	2.50	3.00	2.00	2.50	3.125	1.75
	2.00	1.50	1.875	2.25	4.00	2.00	2.125	1.875	4.00	1.50	2.375	2.00	2.125	2.75	2.25	2.50	2.875	1.875
	1.875	2.00	2.125	2.00	2.375	2.00	3.50	3.50	3.375	1.25	2.875	1.50	2.75	2.00	2.50	3.00	3.375	2.25
	1.625	1.50	1.875	3.00	2.50	2.50	2.50	2.75	3.50	2.25	2.00	2.50	3.00	2.375	1.75	2.00	2.50	1.875
	2.125	1.50	1.875	1.75	3.00	1.75	3.125	3.50	2.875	2.00	1.50	2.25	1.75	1.625	2.00	2.25	2.25	2.125
	1.75	1.625	2.50	2.00	2.00	2.00	2.00	3.00	2.625	1.50	3.00	2.25	2.00	3.375	2.50	1.50	2.125	2.50
	2.50	1.875	2.125	2.00	2.00	3.00	1.75	1.75	2.50	2.50	1.75	2.00	3.00	2.50	3.125	2.375		
	1.875	2.125	2.125	2.50	2.50	2.50	3.50	2.375	2.50	2.625	1.50	2.50	3.50	3.25	1.75	2.50	3.50	2.75
	1.75	2.25	2.875	1.75	2.50	4.25	2.50	3.375	2.00	2.50	2.50	1.50	3.00	2.00	1.625	1.75	3.00	2.875
	2.00	1.50	2.00	1.875	2.50	1.75	3.00	2.625	2.25	1.25	2.375	2.125	1.75	1.625	2.25	2.00	3.00	2.125
	2.125	2.00	2.75	2.75	1.75	2.50	3.00	2.00	3.00	1.00	2.125	1.50	1.875	2.00	2.50	2.00	3.00	1.50
	2.125	2.00	2.00	2.25	2.00	2.50	2.25	2.125	2.375	1.00	3.00	2.00	3.00	2.50	1.75	3.00	2.875	2.00
	2.25	2.50	1.875	3.00	2.50	1.625	2.625	3.25	4.75	1.50	3.00	2.50	3.00	1.875	1.50	2.125	2.50	2.25
	2.50	2.00	2.00	3.00	2.00	1.75	3.375	2.75	3.50	2.00	2.50	2.75	1.50	2.50	1.25	2.375	3.375	1.50
	2.375	2.625	2.00	2.00	2.00	3.00	2.50	4.00	3.00	1.75	2.75	1.75	2.50	2.00	1.50	2.75	3.00	3.00
	2.25	2.00	2.75	2.625	2.00	2.50	3.00	3.50	3.00	1.50	1.50	3.00	1.50	2.00	1.75	2.50	3.00	1.75
	1.625	2.50	2.00	2.625	3.00	2.00	2.50	3.50	3.625	1.75	2.125	1.25	2.00	2.75	1.75	2.50	2.625	2.25
	2.50	2.00	2.50	2.50	1.875	2.50	2.50	3.50	4.00	2.25	2.75	1.75	1.50	2.875	1.75	3.00	2.125	2.75
	1.875	2.125	2.00	2.50	2.00	1.75	3.00	2.75	2.25	1.75	2.875	2.25	1.50	3.00	2.00	1.50	2.125	2.00
	1.75	1.875	2.25	2.75	3.00	2.50	2.50	3.375	3.50	1.50	2.00	1.75	2.50	2.00	2.00	1.50	2.375	2.50
	2.75	2.125	2.75	2.25	3.00	2.00	3.50	2.50	2.50	1.50	2.00	2.00	2.75	2.00	1.75	2.00	2.375	3.00
	2.375	2.50	2.375	2.00	3.125	1.75	3.00	3.375	3.00	1.625	2.00	1.50	5.875	2.50	1.625	2.625	2.50	1.50
Totals	112.00	91.375	107.125	119.625	127.375	113.00	129.875	151.625	153.625	91.875	108.625	96.500	116.375	118.00	103.875	105.625	123.875	104.875

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Highest	B′	2.75	1.0826	B′	3.625	1.4271	B′	3.50	1.3779	B′	3.00	1.1811	B′	5.875	2.3129	B′	3.25	1.2795
	B″	2.625	1.0328	B″	4.00	1.5748	B″	4.50	1.7716	B″	3.25	1.2795	B″	3.50	1.3779	B″	3.50	1.3779
	B‴	3.00	1.1811	B‴	4.25	1.6732	B‴	5.00	1.9685	B‴	3.125	1.2307	B‴	4.00	1.5748	B‴	3.00	1.1811
Highest		3.00	1.1811		4.25	1.6732		5.00	1.9685		3.25	1.2795		5.875	2.3129		3.50	1.3779
Lowest	B′	1.625	0.6397	B′	1.75	0.6889	B′	1.25	0.4921	B′	1.00	0.3937	B′	1.375	0.5413	B′	1.50	0.5905
	B″	1.25	0.4921	B″	1.75	0.6889	B″	1.75	0.6889	B″	1.50	0.5905	B″	1.50	0.5905	B″	1.75	0.6889
	B‴	1.375	0.5413	B‴	1.50	0.5905	B‴	1.75	0.6889	B‴	1.00	0.3937	B‴	1.25	0.4921	B‴	1.00	0.3937
Lowest		1.25	0.4921		1.50	0.5905		1.25	0.4921		1.00	0.3937		1.25	0.4921		1.00	0.3937
Average	B′	2.24	0.8677	B′	2.393	0.9421	B′	2.598	1.0228	B′	1.817	0.7153	B′	2.327	0.9161	B′	2.112	0.8314
	B″	1.828	0.7196	B″	2.548	1.0031	B″	3.283	1.1940	B″	2.173	0.8555	B″	2.36	0.9291	B″	2.678	1.0043
	B‴	2.143	0.8436	B‴	2.26	0.8897	B‴	3.073	1.2098	B‴	1.93	0.7598	B‴	2.117	0.8334	B‴	2.097	0.8255
Average		2.070	0.8149		2.40	0.9448		2.901	1.1421		1.973	0.7767		2.268	0.8929		2.299	0.9169
Measurements above average		56			73			76			80			60			71	
Measurements below average		94			77			74			70			84			79	

TABLE IX.—*Measurements of fineness of thoroughbred Merino wools, crossbred series, &c.*—Continued.

EWES.

Catalogue number of sample...	801.			802.			803.			804.			805.			806.		
	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.50	2.25	2.00	4.50	3.125	3.75	2.50	2.25	3.50	2.25	2.50	1.50	3.00	3.25	2.125	2.00	2.00	3.00
	2.50	1.875	1.875	4.00	2.125	2.50	3.00	4.00	2.25	2.50	1.875	2.50	3.50	2.375	2.50	2.50	3.875	2.75
	2.00	2.00	2.00	4.00	3.00	2.00	2.25	3.00	2.50	2.75	3.00	2.625	2.00	2.00	1.50	3.00	2.00	2.50
	2.375	2.25	2.50	4.00	3.00	2.25	2.00	1.50	2.75	2.00	2.375	2.00	2.50	2.00	3.375	2.50	2.875	2.75
	2.25	2.00	1.625	3.00	2.50	3.25	4.00	2.625	4.00	2.375	2.00	2.625	2.50	2.00	3.00	2.25	1.875	2.00
	2.375	2.00	2.50	2.625	3.00	3.125	1.75	2.00	3.375	2.125	1.75	2.00	2.00	1.875	2.375	1.875	3.75	3.00
	2.75	3.25	1.875	3.00	3.00	3.25	1.50	1.25	3.50	3.00	3.125	2.50	4.125	2.50	3.00	2.50	2.00	2.50
	2.50	2.50	1.875	2.875	2.50	3.25	1.875	2.00	3.75	1.875	3.00	2.75	2.375	2.125	2.50	4.00	2.625	2.50
	1.625	2.00	2.125	3.50	3.00	2.75	3.125	2.875	2.50	2.50	2.50	3.00	2.50	1.625	2.50	3.75	2.375	2.00
	1.75	2.125	3.00	5.25	3.00	2.50	3.50	2.375	2.25	2.00	3.25	1.625	3.00	3.375	2.50	2.00	2.50	2.00
	1.75	2.25	2.50	4.375	4.00	5.00	3.25	3.125	3.125	1.875	2.50	1.50	2.625	3.00	2.50	2.50	2.50	3.00
	2.375	2.50	1.75	3.50	2.50	2.75	1.50	3.00	2.875	2.50	3.00	2.00	2.125	3.625	1.75	3.00	1.875	2.00
	1.75	1.625	2.00	3.625	3.00	2.50	1.50	3.50	3.125	2.625	2.75	3.50	2.125	1.75	1.875	2.50	1.75	3.00
	1.625	1.50	2.50	3.00	2.875	2.75	1.625	3.625	2.625	2.875	2.875	1.375	2.75	2.00	2.25	2.50	2.125	1.875
	2.50	2.375	1.50	4.50	2.50	3.00	2.125	2.25	2.625	2.125	3.00	2.25	2.50	2.25	4.00	2.00	2.625	2.375
	2.75	1.875	1.875	3.75	2.50	2.75	2.50	2.625	2.50	2.00	3.00	4.00	2.00	1.75	3.00	2.50	2.00	2.00
	2.375	2.625	1.625	3.75	2.25	2.50	2.125	2.75	2.375	2.50	3.00	2.50	2.375	2.125	2.50	2.50	2.125	2.00
	2.00	1.625	2.00	1.50	3.00	3.50	1.625	2.00	3.125	2.00	2.625	2.00	3.00	1.50	3.50	2.50	1.875	4.00
	2.75	2.625	1.50	3.00	3.00	3.125	2.75	2.50	3.875	3.00	2.625	2.00	2.125	3.00	2.50	2.25	2.125	3.25
	2.375	2.50	2.125	3.50	2.375	3.50	1.50	2.625	3.50	2.50	2.75	3.00	2.00	2.00	2.00	2.25	3.375	3.50
	2.50	1.50	2.00	2.625	2.25	2.50	2.625	2.00	4.50	3.75	2.375	3.00	2.125	2.125	2.875	2.50	3.00	1.50
	2.25	2.75	2.25	3.50	2.00	3.50	1.875	3.375	4.00	2.125	2.50	1.625	2.75	2.50	1.875	2.25	2.375	3.00
	2.00	2.125	2.00	3.625	2.50	3.00	2.125	4.25	3.75	2.00	2.875	2.75	3.00	1.625	2.00	2.50	2.50	2.50
	2.125	2.00	2.00	2.50	2.75	2.75	4.50	1.875	1.875	2.225	2.875	1.25	2.00	1.50	1.50	2.625	1.875	2.50
	2.50	1.625	2.375	3.00	3.00	2.50	2.375	3.00	2.50	2.00	3.125	1.75	3.00	1.875	3.50	2.75	3.625	2.50
	3.25	2.00	2.00	3.00	2.50	2.75	2.00	3.50	2.375	2.50	2.50	2.00	2.50	1.50	3.00	2.50	1.75	3.00
	2.25	1.50	2.375	2.375	3.00	3.25	1.875	2.00	3.25	2.625	2.375	2.25	2.25	1.50	3.00	2.50	2.125	3.00
	2.625	1.75	1.50	2.50	3.25	2.25	2.375	2.50	2.50	3.00	2.50	2.125	2.75	2.00	2.125	2.375	3.50	2.50
	2.75	2.00	1.75	3.50	2.50	3.25	3.50	2.00	4.00	2.125	2.125	2.25	2.875	2.125	2.50	2.625	2.50	2.50
	2.25	2.00	1.50	2.375	2.375	3.75	3.50	2.00	4.375	2.00	2.00	3.50	2.00	2.00	2.00	3.00	2.125	2.00
	2.50	2.75	1.50	3.75	2.50	1.875	4.50	3.25	2.00	2.00	2.50	2.25	2.875	2.50	2.125	2.50	2.50	1.875
	1.50	1.50	1.875	3.125	3.00	2.50	2.00	2.50	3.00	2.375	2.625	2.125	1.50	2.50	2.00	3.00	2.75	2.50
	2.00	2.00	2.375	2.50	1.875	3.75	2.50	2.00	3.875	2.50	2.50	2.50	2.00	2.50	2.75	2.00	2.125	2.375
	2.00	2.00	1.875	3.375	2.50	2.625	2.75	3.50	4.50	3.50	3.00	2.00	2.00	2.50	3.00	2.50	2.125	2.00
	1.75	2.50	1.75	4.375	2.50	2.375	1.50	2.50	3.25	3.00	3.00	1.75	2.00	2.50	2.00	3.50	2.50	1.75
	2.75	2.125	1.625	3.375	2.00	3.125	1.50	1.25	4.50	2.50	2.375	2.50	2.125	2.00	2.50	3.50	2.23	2.75
	1.875	1.625	1.875	3.125	2.50	4.25	1.375	3.125	3.375	2.25	3.25	2.50	2.50	2.125	3.25	4.00	2.125	3.00
	2.00	1.875	1.875	3.00	1.75	2.75	2.50	2.50	2.50	2.125	3.625	2.00	2.00	2.00	3.50	2.375	2.25	2.50
	1.75	2.50	2.50	3.00	2.375	3.50	1.875	2.50	3.00	2.00	2.875	2.50	2.00	2.375	2.25	2.50	2.25	3.50
	1.875	1.75	1.875	2.50	2.50	2.75	3.00	3.375	5.25	2.25	3.00	3.25	3.00	2.00	2.00	2.00	2.125	1.75
	2.00	2.375	1.625	2.50	2.625	4.00	4.00	2.00	2.875	2.00	2.125	3.00	3.50	2.50	3.50	2.50	2.625	2.00
	2.125	1.625	2.00	3.50	3.50	3.75	2.375	2.50	3.375	2.00	2.25	2.00	2.00	3.00	2.00	2.75	1.625	1.875
	2.25	1.75	2.375	3.625	2.00	4.00	3.50	3.50	2.00	1.875	2.75	2.00	2.75	2.00	2.50	2.00	2.25	1.875
	2.125	2.25	1.75	4.00	3.50	3.25	2.625	2.875	5.00	2.625	2.125	2.125	3.125	2.375	1.875	2.50	2.375	2.00
	1.625	1.625	2.50	3.75	3.50	2.875	2.25	2.00	4.375	2.00	3.00	1.625	2.50	2.00	3.00	2.50	2.375	2.50
	1.50	2.00	2.25	2.50	3.00	3.875	2.125	3.875	3.50	2.00	3.00	1.75	2.75	2.375	1.50	2.375	2.875	2.00
	1.875	1.75	2.625	2.125	2.75	3.875	2.50	4.00	2.50	2.00	2.25	2.50	2.50	2.75	2.25	2.50	1.75	1.875
	1.75	1.75	2.25	1.50	2.375	2.50	4.00	3.00	2.50	2.00	2.375	2.125	3.375	2.375	2.25	3.00	3.00	2.25
	2.00	1.75	1.875	1.625	3.00	3.25	3.75	2.875	3.25	2.625	2.375	2.50	2.50	2.375	3.50	3.75	2.75	2.50
	2.75	2.50	3.00	3.75	2.375	2.75	3.125	2.25	3.375	1.375	2.875	2.625	2.50	2.375	1.50	3.00	2.125	2.00
Totals	109.375	103.00	101.50	163.25	134.50	156.125	128.50	132.75	161.25	112.75	132.625	116.375	125.875	111.50	124.875	129.25	119.875	121.875

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Highest	B′	3.25	1.2795	B′	5.25	2.0669	B′	4.50	1.7716	B′	3.75	1.4763	B′	4.125	1.6240	B′	4.00	1.5748
	B″	3.25	1.2795	B″	4.00	1.5748	B″	4.25	1.6732	B″	3.625	1.4271	B″	3.625	1.4271	B″	3.875	1.5255
	B‴	3.00	1.1811	B‴	4.25	1.6732	B‴	5.25	2.0669	B‴	4.00	1.5748	B‴	4.00	1.5748	B‴	4.00	1.5748
Highest		3.25	1.2795		5.25	2.0669		5.25	2.0669		4.00	1.5748		4.125	1.6240		4.00	1.5748
Lowest	B′	1.50	0.5905	B′	1.50	0.5905	B′	1.375	1.5413	B′	1.375	0.5413	B′	1.50	0.5905	B′	1.875	0.7380
	B″	1.50	0.5905	B″	1.75	0.6889	B″	1.25	0.4921	B″	1.75	0.6889	B″	1.50	0.5905	B″	1.625	0.6397
	B‴	1.50	0.5905	B‴	1.875	0.7380	B‴	1.875	0.7380	B‴	1.25	0.4921	B‴	1.50	0.5905	B‴	1.50	0.5905
Lowest		1.50	0.5905		1.50	0.5905		1.25	0.4921		1.25	0.4921		1.50	0.5905		1.50	0.5905
Average	B′	2.188	0.8614	B′	3.265	1.2854	B′	2.57	1.0118	B′	2.255	0.8877	B′	2.518	0.9913	B′	2.585	1.0177
	B″	2.06	0.8110	B″	2.69	1.0590	B″	2.655	1.0452	B″	2.653	1.0444	B″	2.23	0.8779	B″	2.598	1.0228
	B‴	2.03	0.7992	B‴	3.123	1.2295	B‴	3.225	1.2696	B‴	2.328	0.9165	B‴	2.498	0.9834	B‴	2.438	0.9598
Average		2.092	0.8236		3.026	1.1913		2.816	1.1086		2.412	0.9496		2.412	0.9496		2.54	0.9999
Measurements above average		66			57			68			77			71			46	
Measurements below average		84			93			82			73			79			104	

TABLE IX.—*Measurements of fineness of thoroughbred Merino wools, crossbred series, &c.*—Continued.

RAMS.

Catalogue number of sample...	848.			849.			850.			851.			852.			853.		
	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	3.625	3.00	3.25	2.00	2.25	2.50	3.50	1.50	3.125	2.50	3.00	2.125	3.00	2.50	2.625	3.125	2.50	2.375
	2.50	1.875	3.50	2.25	3.00	1.75	2.375	2.50	3.875	2.625	2.50	3.375	2.375	2.625	2.625	2.625	2.50	1.50
	3.75	2.75	3.00	2.125	2.50	2.25	3.375	2.875	3.875	1.50	3.75	2.50	2.00	2.50	4.00	2.125	2.50	1.625
	2.75	2.75	2.75	2.25	3.00	2.125	2.50	2.25	2.50	1.50	3.00	2.625	1.875	3.25	2.625	1.50	1.75	1.625
	2.50	4.50	2.875	2.00	2.25	2.00	2.125	1.875	2.125	3.00	2.50	2.50	2.125	2.50	4.00	2.625	1.875	1.875
	3.00	3.50	2.875	2.125	2.25	2.125	2.625	2.50	2.375	1.50	3.00	2.50	1.875	2.25	2.625	2.375	2.25	1.50
	2.25	2.50	4.50	2.125	2.375	2.25	2.875	3.75	2.625	2.00	2.75	2.375	3.00	2.50	2.50	2.125	1.875	1.375
	3.125	2.125	3.125	2.50	3.50	1.875	2.00	2.75	2.625	2.125	2.50	2.50	1.875	1.875	2.625	3.625	2.50	1.625
	1.50	2.50	3.25	2.50	2.50	1.75	2.00	3.625	2.50	2.625	2.50	2.50	2.625	2.50	2.875	3.00	2.00	1.375
	1.00	1.50	4.00	2.25	2.125	3.00	2.625	2.625	1.875	2.00	2.125	2.625	3.370	3.00	2.625	1.875	2.375	1.875
	2.25	3.00	2.25	2.25	2.25	1.875	2.875	2.25	2.625	3.00	2.50	1.875	1.875	2.50	3.875	2.625	1.875	1.50
	2.75	2.50	2.375	2.625	2.50	1.50	2.50	2.00	2.50	2.00	2.375	2.875	1.875	2.25	4.00	2.875	1.625	2.00
	2.375	3.00	3.50	2.50	2.00	1.625	1.875	2.75	3.00	2.125	3.875	2.875	2.00	3.00	2.625	2.625	1.75	2.00
	2.50	2.00	3.00	2.75	2.875	2.25	2.625	2.50	3.873	2.50	2.75	2.50	1.75	2.50	3.625	2.875	1.875	2.00
	3.00	2.00	2.375	1.75	2.00	2.00	3.125	2.375	1.875	2.00	2.75	2.625	2.625	3.25	2.50	3.125	2.125	1.375
	3.25	1.875	2.875	2.00	2.50	1.50	2.00	2.875	2.625	2.875	3.25	2.625	3.125	3.00	2.625	2.50	2.50	1.625
	2.25	1.75	2.50	2.25	3.00	1.625	3.875	2.375	2.375	2.375	2.00	4.00	2.50	3.25	2.50	2.50	1.625	1.625
	4.25	1.25	2.25	2.50	3.125	1.50	2.875	3.00	2.625	1.875	2.125	3.625	1.375	3.75	3.625	2.375	2.00	2.00
	5.00	1.75	2.375	2.50	2.75	2.50	2.625	2.50	1.50	2.125	3.00	4.00	1.375	2.375	3.375	2.50	2.00	1.875
	1.00	2.25	3.00	2.00	2.50	2.00	2.625	2.50	2.00	2.00	3.00	1.875	1.375	2.125	2.875	2.875	1.75	2.00
	3.00	3.00	3.50	2.25	2.625	2.00	2.125	2.00	1.50	2.125	3.00	3.125	2.375	2.25	3.375	2.625	2.25	1.625
	3.50	2.00	2.625	2.375	2.375	2.00	2.125	3.00	1.625	2.00	3.00	1.875	2.00	2.50	2.625	3.375	2.00	1.875
	3.00	3.00	2.75	2.50	2.125	1.75	2.875	2.75	1.50	2.375	3.00	2.875	2.50	2.375	3.375	2.625	1.50	2.875
	2.50	1.875	3.00	2.25	2.25	1.625	2.625	1.875	1.625	2.00	3.00	1.875	1.375	3.75	3.00	2.375	2.75	2.00
	3.25	2.00	2.50	2.00	3.50	1.625	4.00	1.75	2.50	1.875	3.125	3.375	1.875	3.75	2.125	2.50	1.875	1.375
	3.75	2.25	2.50	2.625	3.25	1.50	2.375	2.00	1.375	2.00	1.875	2.00	2.125	2.50	3.625	2.50	2.00	1.625
	3.50	3.00	4.00	3.00	2.25	2.25	2.125	2.125	1.625	2.00	3.125	1.875	1.875	3.75	4.00	1.00	2.50	1.875
	4.00	3.50	4.125	2.50	2.50	2.375	3.625	3.00	2.875	2.00	2.50	2.625	2.00	2.125	2.625	2.50	1.625	1.875
	4.25	2.00	2.25	1.75	2.25	1.50	3.125	3.25	1.50	1.625	1.875	2.875	2.375	2.25	3.50	2.625	2.00	3.375
	2.50	1.75	1.75	2.50	2.25	1.75	2.50	3.00	2.00	1.875	1.50	2.00	2.125	3.875	4.00	3.125	1.875	1.875
	2.625	2.25	1.625	1.625	2.375	2.25	2.625	2.50	1.375	2.125	3.00	1.875	2.625	3.375	2.625	2.625	2.00	2.125
	3.125	2.50	3.00	2.50	2.50	2.00	3.125	1.375	2.375	2.875	2.875	2.625	1.875	3.375	2.375	2.00	2.125	2.625
	3.50	2.50	3.25	2.25	3.25	2.375	2.00	2.00	2.00	1.375	3.00	3.375	2.625	1.50	2.625	2.50	2.00	1.875
	3.25	2.25	3.875	2.375	2.75	2.25	2.00	2.50	1.625	1.375	2.875	3.125	2.625	3.50	3.375	3.375	1.875	1.375
	3.50	2.00	4.00	2.50	3.25	2.125	2.625	2.50	3.375	3.50	2.50	3.00	1.875	2.125	2.625	2.125	3.125	1.875
	3.875	2.125	2.50	3.00	2.50	1.625	2.00	1.875	2.875	1.50	3.50	2.00	2.00	3.50	2.625	2.00	2.25	1.625
	2.375	4.00	2.50	2.50	2.625	2.00	3.125	2.125	1.50	2.125	3.375	1.875	3.375	2.00	2.625	4.00	2.00	1.875
	2.875	2.50	2.25	2.25	2.25	2.125	3.00	1.75	1.375	2.375	4.00	2.875	1.375	3.00	3.126	2.875	2.25	1.50
	4.00	2.00	2.125	2.125	2.00	2.75	2.625	1.50	1.375	2.00	3.375	1.375	2.50	3.75	2.625	2.875	2.00	1.50
	2.00	3.625	2.50	2.25	1.75	3.125	2.00	2.00	1.625	1.50	3.50	1.875	2.125	3.650	4.00	3.125	1.75	2.00
	2.25	3.75	2.625	3.25	2.50	1.875	1.875	1.50	1.375	1.875	2.50	2.625	2.00	3.75	3.625	2.625	1.875	1.625
	3.00	2.50	2.75	2.50	2.625	1.50	2.375	2.50	2.00	2.625	2.25	3.375	1.875	2.75	3.00	2.625	2.125	1.875
	2.50	2.50	2.875	1.75	2.50	2.375	2.125	2.00	2.00	2.125	3.375	3.125	1.875	2.75	2.00	3.875	2.50	2.00
	3.00	3.00	3.00	1.875	2.375	1.875	2.875	1.625	1.875	2.625	2.125	3.125	2.50	1.875	2.625	3.125	2.00	1.875
	3.125	2.25	3.125	2.125	2.25	1.875	2.00	2.625	2.00	2.625	1.625	3.125	2.625	3.25	2.50	3.00	2.125	2.00
	2.625	3.00	2.50	1.625	3.00	3.00	2.50	2.75	3.125	2.125	3.00	2.00	1.50	2.125	3.625	3.125	1.75	2.00
	3.375	2.125	2.625	1.75	2.25	1.75	2.875	2.375	2.875	1.815	3.00	2.125	1.50	3.50	2.50	2.50	2.375	2.00
	2.00	3.00	2.875	1.625	2.50	2.25	2.50	1.625	3.00	1.875	3.00	3.375	2.625	2.00	2.875	2.625	2.125	2.625
	2.50	2.50	3.50	2.00	2.75	1.625	3.00	2.50	1.875	1.875	3.00	3.375	3.00	2.875	2.50	2.50	2.00	1.875
	2.75	3.00	2.50	2.25	2.75	1.375	2.375	2.50	1.875	2.50	3.50	2.875	2.625	2.00	2.50	3.125	2.125	1.375
Totals	156.625	122.625	145.625	114.125	124.875	99.00	129.625	119.25	109.625	105.00	141.625	131.625	107.875	137.625	147.875	132.250	112.00	94.00

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Highest	B′	4.25	1.6732	B′	3.25	1.2795	B′	4.00	1.5748	B′	3.50	1.3779	B′	3.375	1.3287	B′	4.00	1.5748
	B″	4.50	1.7716	B″	3.50	1.3779	B″	3.75	1.4763	B″	4.00	1.5748	B″	4.00	1.5748	B″	2.75	1.0826
	B‴	4.50	1.7716	B‴	3.125	1.2303	B‴	3.875	1.5255	R‴	4.00	1.5748	B‴	4.00	1.5748	B‴	3.375	1.3287
Highest		4.50	1.7716		3.25	1.2795		4.00	1.5748		4.00	1.5748		4.00	1.5748		4.00	1.5748
Lowest	B′	2.00	0.7874	B′	1.625	0.6397	B′	1.875	0.7380	B′	1.375	0.5413	B′	1.375	0.5413	B′	1.50	0.5905
	B″	1.25	0.4921	B″	1.75	0.6889	B″	1.375	0.5413	B″	1.50	0.5905	B″	1.50	0.5905	B″	1.50	0.5905
	B‴	1.625	0.6397	B‴	1.375	0.5413	B‴	1.375	0.5413	B‴	1.375	0.5413	B‴	2.00	0.7874	B‴	1.375	0.5413
Lowest		1.625	0.6397		1.375	0.5414		1.375	0.5413		1.375	0.5413		1.375	0.5413		1.3758	0.5913
Average	B′	3.133	1.2344	B′	2.283	0.8990	B′	2.593	1.0208	B′	2.10	0.8267	B′	2.158	0.8496	B′	2.765	1.0889
	B″	2.453	0.9657	B″	2.497	0.9830	B″	2.563	1.0089	B″	2.832	1.1149	B″	2.75	1.0826	B″	2.29	0.9018
	B‴	2.913	1.1468	B‴	1.980	0.7795	B‴	2.195	0.8643	B″	2.431	1.0366	B‴	2.938	1.1645	B‴	1.880	0.7401
Average		2.833	1.1153		2.253	0.8870		2.390	0.9409		2.522	0.9929		2.622	1.0322		2.295	0.9035
Measurements above average			70			62			76			70			76			57
Measurements below average			80			88			74			88			74			93

TABLE IX.—*Measurements of fineness of thoroughbred Merino wools, crossbred series, &c.*—Continued.

Catalogue number of sample...	RAMS.												EWES.					
	854.			855.			856.			857.			808.			809.		
	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	2.00	2.50	2.125	4.50	3.50	3.00	2.50	3.75	2.125	3.25	3.25	2.50	2.50	2.00	3.00	2.125	1.50	2.125
	2.00	2.50	1.50	2.50	3.25	4.25	3.25	3.75	2.00	2.50	2.25	2.25	2.50	2.125	2.50	3.50	1.875	1.50
	1.875	2.50	2.00	3.00	3.00	4.00	4.00	3.75	2.25	3.875	2.50	2.00	2.00	2.375	2.50	2.00	1.625	1.25
	2.50	3.125	1.50	3.25	2.50	3.25	2.75	3.75	2.50	2.375	2.00	1.875	1.875	1.875	3.00	3.25	1.75	1.125
	2.625	2.875	2.00	3.00	3.25	3.00	2.00	3.625	2.75	3.50	1.875	2.50	2.00	1.75	2.50	2.50	1.75	1.75
	2.75	2.625	2.00	3.75	4.00	2.50	2.00	3.375	2.875	3.25	2.50	2.75	2.125	1.875	3.75	3.25	1.50	1.50
	2.50	2.875	2.50	3.00	2.50	2.125	2.50	4.75	3.00	2.75	3.125	1.875	2.00	1.625	3.00	2.50	2.00	1.50
	1.625	2.50	1.75	4.125	2.75	2.50	3.50	2.75	2.50	2.50	2.25	2.125	2.50	2.00	3.00	2.25	1.75	2.00
	2.25	2.50	1.50	3.125	3.25	2.375	3.75	3.75	3.00	4.00	2.50	2.75	2.00	2.125	3.25	2.125	1.875	1.25
	2.00	2.375	1.875	4.25	4.125	2.75	2.50	2.50	2.75	2.50	2.00	2.25	2.50	1.875	3.00	2.00	1.50	1.00
	2.50	2.375	2.00	3.00	3.50	2.625	1.875	2.375	2.375	3.375	2.125	3.00	2.25	2.125	3.00	1.25	1.75	1.00
	2.50	2.625	1.875	3.125	2.875	2.50	3.50	2.50	2.00	4.00	2.25	2.375	2.125	2.00	2.375	2.00	2.125	2.125
	3.00	2.375	2.00	3.75	5.00	2.75	3.50	4.00	2.50	2.50	3.75	2.50	2.50	2.00	3.50	1.50	1.875	2.25
	2.00	2.875	2.00	3.375	2.50	2.375	3.75	4.00	2.50	3.125	3.625	2.00	2.50	2.125	2.60	2.25	2.125	2.25
	1.50	3.00	1.865	4.125	2.625	2.375	3.25	4.375	2.75	4.00	2.25	3.50	2.00	2.00	2.25	2.50	1.875	2.00
	2.125	3.00	2.00	4.25	3.125	2.625	4.00	4.375	2.25	2.50	3.50	2.00	2.50	2.00	2.375	2.125	1.875	2.125
	2.50	1.625	2.50	3.25	3.50	3.125	4.00	3.50	2.50	4.50	3.00	2.50	1.25	2.50	2.125	2.375	1.75	1.50
	2.00	3.00	2.625	3.125	4.25	2.25	2.125	3.00	3.00	3.75	3.50	2.875	2.25	2.375	2.25	2.50	2.75	1.25
	1.75	2.50	2.00	3.50	3.375	2.375	2.75	2.50	3.75	4.00	3.125	2.50	2.00	2.00	2.50	2.50	1.50	1.125
	2.00	2.375	2.75	3.625	3.75	2.125	3.00	4.75	2.50	3.00	2.75	2.875	2.50	2.125	2.50	2.875	1.875	1.25
	2.00	2.25	2.125	4.75	3.625	3.00	2.875	3.75	1.875	2.375	2.75	2.00	2.375	2.375	2.75	2.875	1.875	1.125
	2.00	2.00	2.00	3.25	3.375	2.375	4.00	2.625	1.875	4.50	2.00	3.00	1.50	1.875	2.50	2.25	1.00	2.50
	2.25	1.50	1.875	3.875	3.75	2.50	2.75	2.125	2.625	3.25	4.00	2.375	1.875	1.875	2.00	2.875	1.75	2.00
	2.50	2.375	3.50	3.00	3.625	3.25	2.50	4.00	2.00	3.625	3.125	2.75	2.50	2.00	3.00	2.25	2.00	2.25
	2.25	2.625	1.75	3.875	3.375	2.00	2.50	3.00	2.00	3.25	4.25	1.50	2.75	2.50	2.00	2.125	2.25	1.75
	2.375	2.50	1.875	3.00	3.50	2.375	2.875	2.50	3.00	3.125	2.00	1.875	2.375	1.75	2.00	2.00	2.50	2.00
	2.25	3.50	1.625	3.375	2.50	1.875	3.75	2.125	3.00	2.75	1.75	2.00	2.50	2.50	3.00	2.50	1.25	2.00
	2.125	2.50	2.00	4.00	2.00	2.50	4.00	3.00	2.00	4.125	2.125	3.50	2.375	2.375	3.25	1.875	1.875	1.875
	2.50	2.00	1.875	3.625	2.775	3.00	4.00	3.50	2.00	2.875	2.50	1.50	2.00	2.125	3.00	2.25	1.50	1.75
	2.25	2.375	2.25	3.75	3.625	3.00	5.00	3.625	3.00	5.00	2.00	2.50	2.00	2.375	2.50	3.50	1.25	2.00
	2.125	2.00	2.00	3.625	2.75	2.50	4.25	3.00	2.75	3.375	2.50	2.625	1.50	2.125	3.50	3.75	2.00	2.125
	2.875	2.625	2.25	3.125	3.50	2.25	4.25	4.00	3.00	3.25	2.75	3.00	1.875	3.00	3.25	4.375	2.00	1.50
	2.00	2.00	2.00	3.625	3.00	2.375	2.50	2.00	3.25	4.375	3.00	3.00	1.625	2.125	1.875	3.00	1.50	1.50
	2.00	3.00	1.50	2.375	4.00	2.00	3.50	2.50	2.50	4.75	2.50	1.50	1.875	2.00	3.00	3.00	1.75	1.75
	2.25	2.125	1.50	3.375	4.00	1.875	3.125	3.75	1.75	2.50	2.125	1.875	2.00	2.375	2.00	2.50	1.50	1.625
	2.00	2.25	3.75	3.50	2.50	3.00	2.50	2.625	1.75	3.50	2.25	2.625	2.50	1.75	3.00	2.125	1.875	2.00
	2.25	2.00	2.75	3.25	3.625	4.00	2.50	2.375	3.00	3.375	3.00	2.50	2.00	2.375	3.00	2.50	1.50	1.50
	2.00	1.50	1.50	4.00	2.50	2.50	3.50	1.625	2.50	2.50	2.50	1.875	1.75	1.875	3.00	2.25	1.875	1.375
	2.50	2.00	2.375	2.75	3.00	2.50	4.75	3.00	2.50	4.00	2.25	1.875	1.50	2.50	2.75	2.375	1.50	1.625
	2.125	2.375	2.25	3.75	2.375	2.375	3.00	3.625	3.25	3.25	2.375	2.75	1.75	2.00	2.00	2.25	1.50	1.625
	2.50	1.875	2.375	3.50	2.50	2.50	4.00	2.00	1.75	3.50	3.25	2.50	2.50	2.00	2.75	2.00	1.625	1.50
	2.375	2.125	2.375	3.50	3.50	2.50	4.25	3.25	1.875	3.75	2.125	2.375	1.875	1.625	2.50	1.625	1.625	2.50
	2.75	2.50	2.00	3.625	2.50	2.75	3.375	2.375	3.75	3.00	2.50	2.00	2.00	3.00	2.50	3.00	2.00	2.75
	2.00	2.00	2.50	3.125	3.75	2.125	4.00	2.375	2.50	3.00	2.50	1.75	1.75	2.375	2.25	2.00	1.625	2.25
	2.00	2.125	3.00	3.50	2.50	4.00	4.50	3.00	2.50	3.50	3.25	1.875	2.375	2.625	3.25	2.25	1.375	2.00
	2.25	1.75	2.50	3.50	2.875	3.125	3.50	3.50	2.75	3.00	2.00	2.00	2.00	2.00	2.75	2.00	2.125	2.375
	2.25	2.375	1.875	3.75	2.50	3.00	4.00	3.75	2.00	3.00	2.875	2.50	2.25	3.00	3.50	1.875	1.625	1.50
	1.875	2.125	2.50	3.00	3.25	2.125	3.75	3.00	2.50	3.25	2.125	1.875	1.875	2.125	3.00	1.75	1.625	1.625
	2.25	2.00	2.00	3.875	2.875	2.125	4.00	3.50	2.75	2.375	2.625	2.25	2.25	3.375	3.25	3.00	1.375	1.25
	2.125	2.125	2.50	3.875	2.75	2.50	3.00	3.625	4.50	2.50	2.75	2.375	2.50	2.125	3.00	1.125	2.125	1.25
Totals	111.000	117.625	106.750	174.75	160.125	132.875	167.00	160.50	128.375	165.815	131.875	117.125	105.675	120.00	136.50	119.625	88.00	85.750

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:																		
Highest	B′	3.00	1.1811	B′	4.75	1.8700	B′	4.75	1.8700	B′	5.00	1.9685	B′	2.75	1.0826	B′	4.375	1.7224
	B″	3.125	1.2303	B″	5.00	1.9685	B″	4.75	1.8700	B″	4.25	1.6732	B″	3.375	1.3287	B″	2.75	1.0826
	B‴	3.75	1.4763	B‴	4.25	1.6732	B‴	4.50	1.7716	B‴	3.50	1.3779	B‴	3.75	1.4763	B‴	2.75	1.0826
Highest		3.75	1.4763		5.00	1.9685		4.75	1.8700		5.00	1.9685		3.75	1.4763		4.375	1.7224
Lowest	B′	1.50	0.5905	B′	2.375	0.9350	B′	1.875	0.7380	B′	2.375	0.9350	B′	1.25	0.4921	B′	1.125	0.4429
	B″	1.50	0.5905	B″	2.00	0.7874	B″	1.625	0.6397	B″	1.75	0.6889	B″	1.625	0.6397	B″	1.00	0.3937
	B‴	1.50	0.5905	B‴	1.875	0.7380	B‴	1.75	0.6889	B‴	1.50	0.5905	B‴	1.875	0.7380	B‴	1.00	0.3937
Lowest		1.50	0.5905		1.875	0.7380		1.625	0.6397		1.50	0.5905		1.25	0.4921		1.00	0.3937
Average	B′	2.22	0.8740	B′	3.495	1.3759	B′	3.340	1.3149	B′	3.318	1.3062	B′	2.113	0.8318	B′	2.393	0.9421
	B″	2.35	0.9251	B″	3.20	1.2598	B″	3.21	1.2637	B″	2.637	1.0381	B″	2 40	0.9448	B″	1.76	0.6929
	B‴	2.135	0.8405	B‴	2.658	1.0464	B‴	3.568	1.0110	B‴	2.343	0.9224	B‴	2.73	1.0748	B‴	1.715	0.6751
Average		2.24	0.8818		3.117	1.2271		3.039	1.1964		2.766	1.0889		2.414	0.9503		1.956	0.7700
Measurements above average		76			75			62			61			60			75	
Measurements below average		74			75			88			[illegible]			90			75	

TABLE IX.—*Measurements of fineness of thoroughbred Merino wools, crossbred series, &c.*—Continued.

	EWES.											
Catalogue number of sample	810.			811.			812.			813.		
	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	3.25	2.50	2.25	2.25	2.125	2.25	1.50	2.00	2.00	2.00	2.25	2.00
	3.75	1.75	3.25	2.00	1.50	2.00	2.00	1.75	1.75	2.125	1.875	1.375
	3.50	2.25	3.00	1.50	2.00	2.125	1.875	1.875	1.875	2.00	1.75	1.50
	3.875	3.00	2.125	1.75	1.50	1.75	2.125	1.50	2.00	2.50	2.00	1.50
	2.50	2.50	3.00	1.625	2.75	1.875	1.50	2.00	2.125	2.625	2.125	2.125
	2.50	3.25	2.875	1.625	2.125	1.50	2.25	2.125	1.625	2.25	3.25	2.00
	4.00	4.00	2.50	1.625	2.375	2.00	2.50	2.00	2.00	2.50	3.00	2.25
	2.25	3.375	2.25	2.25	1.875	1.875	1.125	2.00	2.125	2.50	1.875	1.50
	2.50	3.75	2.50	2.375	2.00	1.75	1.875	1.875	1.875	2.375	1.875	1.875
	4.75	3.75	1.875	2.25	1.625	1.125	1.625	2.25	1.75	3.00	1.75	2.00
	2.25	3.625	2.00	1.875	2.25	2.125	2.00	2.00	1.625	1.875	1.625	2.125
	3.00	2.50	2.25	2.25	2.375	2.00	2.25	2.125	1.75	2.00	2.00	1.50
	3.50	2.50	1.75	1.50	1.50	2.25	2.125	2.00	1.50	1.625	3.00	1.375
	3.625	3.25	2.125	1.75	1.625	1.625	1.50	1.875	1.75	2.125	1.375	2.25
	3.25	3.375	2.00	1.50	2.50	2.00	1.50	1.75	2.00	2.25	1.25	2.00
	3.875	2.125	3.00	1.625	1.875	1.50	2.25	3.00	2.125	1.875	1.00	2.375
	5.25	3.00	2.875	2.125	1.875	1.625	1.625	2.00	2.25	2.00	2.50	2.00
	3.00	3.75	1.75	1.75	1.50	2.00	1.75	1.875	3.25	2.25	2.375	2.125
	3.50	3.50	2.25	2.00	1.50	2.125	2.00	1.75	3.50	2.125	3.00	2.25
	3.00	1.75	1.625	1.75	1.50	1.875	1.50	2.375	2.00	1.875	1.875	1.75
	4.00	2.00	2.00	2.375	1.625	1.75	1.50	2.25	2.00	2.125	1.75	2.00
	3.00	4.00	2.00	2.25	1.50	2.00	1.50	2.00	1.625	2.25	1.375	2.25
	3.625	3.00	2.75	1.50	1.875	1.875	1.50	1.875	1.875	2.375	1.25	2.00
	4.00	2.625	3.75	1.50	1.625	1.375	2.00	1.75	2.00	2.50	2.00	1.50
	3.00	2.25	2.75	1.625	1.625	2.25	2.125	1.50	2.50	2.375	2.00	1.375
	3.125	3.50	3.125	1.375	1.375	2.25	2.25	1.375	1.50	2.625	1.50	2.25
	3.25	4.50	3.00	1.75	2.00	1.75	1.50	2.25	1.625	1.00	2.00	2.00
	2.875	2.875	4.00	2.125	1.625	1.75	2.00	1.75	2.00	3.00	1.75	1.875
	2.50	3.625	2.00	1.50	1.75	2.00	2.00	1.75	1.75	2.25	1.625	1.50
	4.875	2.00	1.75	1.00	1.50	1.875	1.25	2.00	2.00	2.125	2.50	2.125
	2.50	3.875	1.875	1.50	1.50	1.50	2.00	2.125	2.125	1.75	2.25	2.25
	3.50	4.50	2.50	1.75	2.00	1.875	2.125	2.375	2.00	2.25	1.875	2.00
	4.25	1.625	1.50	1.625	1.875	1.50	1.875	2.00	1.875	2.50	1.625	2.25
	3.25	2.75	1.75	1.50	1.50	2.25	1.875	1.375	1.75	1.75	1.375	2.375
	3.00	3.25	2.00	1.50	1.50	2.375	1.75	1.75	2.125	3.00	1.25	1.875
	2.875	4.50	1.875	2.125	1.625	1.75	3.00	1.50	1.75	3.625	2.25	1.75
	3.125	2.75	1.625	1.625	2.00	2.50	1.625	2.125	2.00	2.00	2.00	2.25
	4.625	3.00	2.25	1.00	1.75	2.625	2.50	2.00	1.875	2.50	3.00	2.375
	3.25	2.375	3.00	2.00	1.875	2.25	1.00	2.00	1.375	2.625	1.25	1.50
	3.75	2.75	3.125	2.125	1.25	2.125	2.00	2.25	1.50	2.50	1.875	1.75
	2.50	2.625	1.75	1.75	2.875	1.625	1.75	1.75	1.75	2.25	1.25	2.00
	2.00	2.00	3.25	1.875	1.50	1.50	2.00	1.875	2.125	2.375	1.125	2.00
	2.50	2.00	2.875	2.00	2.00	2.00	2.00	2.75	2.00	2.875	1.75	1.125
	3.00	3.00	4.00	1.75	1.875	1.625	1.875	2.50	2.00	2.00	1.625	1.50
	3.00	4.75	3.50	1.50	2.00	1.50	1.50	2.00	2.125	2.25	2.50	1.375
	3.00	2.375	2.00	1.625	1.50	2.125	2.00	2.125	1.875	3.00	3.00	2.50
	3.75	2.125	1.375	2.25	1.875	1.125	2.125	1.75	2.25	2.875	1.75	1.25
	2.00	1.875	2.125	2.00	2.125	1.625	1.875	1.875	2.125	3.50	1.875	1.50
	2.00	4.75	2.25	1.50	2.375	1.75	1.75	1.50	2.00	3.75	2.125	2.00
	3.00	2.00	1.875	1.75	2.125	2.375	2.50	2.00	2.00	2.125	2.00	2.125
Totals	165.25	147.25	120.875	88.625	93.000	94.25	92.625	97.25	96.875	117.50	95.75	97.50

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:												
Highest	B′	4.875	1.9192	B′	2.375	0.9350	B′	3.50	0.9842	B′	3.75	1.4763
	B″	4.75	1.8700	B″	2.875	1.1318	B″	2.75	1.0826	B″	3.25	1.2795
	B‴	4.00	1.5748	B‴	2.625	1.0334	B‴	3.50	1.3779	B‴	2.50	0.9842
Highest		4.875	1.9192		2.875	1.1318		3.50	1.3779		3.75	1.4763
Lowest	B′	2.00	0.7874	B′	1.00	0.3937	B′	1.00	0.3937	B′	1.00	0.3937
	B″	1.375	0.5413	B″	1.25	0.4921	B″	1.375	0.5413	B″	1.00	0.3937
	B‴	1.375	0.5413	B‴	1.125	0.4429	B‴	1.25	0.4921	B‴	1.125	0.4429
Lowest		1.375	0.5413		1.00	0.3937		1.00	0.3937		1.00	0.3937
Average	B′	3.305	1.3011	B′	1.773	0.6980	B′	1.883	0.7295	B′	2.35	0.9251
	B″	2.945	1.1594	B″	1.84	0.7244	B″	1.945	0.7657	B″	1.915	0.7539
	B‴	2.418	0.9519	B‴	1.885	0.7421	B‴	1.938	0.7629	B‴	1.890	0.7440
Average		2.889	1.1373		1.833	0.7212		1.912	0.7527		2.05	0.8070
Measurements above average			73			73			80			67
Measurements below average			77			77			70			83

TABLE IX.—*Measurements of fineness of thoroughbred Merino wools, crossbred series, &c.*—Continued.

EWES.

Catalogue number of sample	814.			815.			816.			817.		
	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.	B′.	B″.	B‴.
Actual measurement in centimillimeters.	1.50	3.00	1.625	1.75	2.25	3.50	1.75	1.50	1.50	3.00	1.50	3.50
	4.00	1.375	1.50	2.25	1.75	2.00	2.00	1.625	1.75	2.50	1.875	3.00
	2.50	1.50	2.00	2.00	1.50	2.25	2.125	1.50	1.375	2.625	2.00	3.00
	2.25	2.25	1.375	2.50	1.50	2.50	2.50	1.75	1.25	2.00	2.50	2.00
	2.00	2.00	1.625	2.25	1.50	2.00	2.25	2.00	1.50	1.00	2.125	1.50
	2.125	1.50	1.25	3.00	2.00	2.00	1.875	2.25	1.625	1.50	2.125	2.25
	1.75	1.625	2.00	2.50	2.125	2.25	2.125	2.50	1.50	1.75	1.50	2.00
	2.00	1.50	1.25	1.75	2.00	2.00	2.00	2.25	2.25	2.375	3.00	2.50
	2.125	1.625	1.50	2.125	1.50	1.375	2.25	1.75	2.125	2.875	2.00	2.625
	2.50	2.00	1.50	2.50	1.625	2.50	2.125	2.00	1.375	2.75	1.75	3.00
	1.875	2.25	1.25	3.00	1.375	3.00	3.00	1.375	2.125	2.50	1.875	2.50
	2.00	3.00	1.375	3.25	2.25	3.125	3.25	1.50	2.50	2.125	1.25	2.50
	2.125	1.625	2.125	2.125	2.00	1.50	2.00	2.00	1.375	3.00	3.00	2.50
	2.75	2.25	1.875	2.125	1.125	1.625	2.25	1.875	1.50	2.00	1.25	2.25
	1.875	1.25	1.25	2.00	1.625	2.00	2.50	1.625	1.625	2.375	1.50	1.75
	1.75	2.00	2.25	1.625	1.50	1.375	1.875	1.50	2.125	2.50	1.50	1.50
	1.625	2.00	1.00	2.75	1.50	1.50	1.50	2.50	1.375	2.50	2.375	1.875
	2.625	1.625	1.25	2.50	1.375	1.00	1.75	2.625	1.25	1.875	2.50	2.00
	3.00	1.75	2.00	3.00	2.00	1.50	1.75	2.00	2.125	2.25	1.75	3.00
	2.50	1.875	2.00	2.00	2.00	2.00	1.875	2.00	2.25	2.125	1.50	2.25
	2.25	3.00	2.125	1.75	2.125	2.125	3.00	1.50	1.875	2.25	2.00	4.00
	2.375	1.25	1.75	1.625	2.375	2.00	2.75	1.125	2.125	2.50	2.00	2.00
	1.875	1.625	1.375	1.625	2.00	2.25	2.00	3.00	2.50	2.375	3.25	2.50
	2.50	1.75	1.50	3.00	1.75	2.125	1.75	2.50	1.75	2.00	1.25	4.00
	2.125	1.50	1.125	2.875	1.875	2.25	1.875	1.75	1.875	2.50	1.25	3.00
	2.50	1.50	1.25	2.00	2.00	1.75	2.00	2.00	1.75	2.625	3.125	2.25
	2.625	2.00	1.25	2.375	1.375	2.75	2.125	2.125	1.375	2.00	1.25	2.375
	1.75	1.50	1.25	1.50	1.625	1.875	1.75	1.875	2.00	2.375	1.50	1.75
	1.875	2.25	1.125	1.625	1.125	2.00	1.875	1.75	1.75	2.00	1.50	1.875
	2.75	2.125	1.50	1.50	1.50	2.125	2.00	2.00	1.625	1.875	2.00	2.00
	1.75	2.00	1.375	1.625	1.75	1.25	2.50	2.00	2.25	1.75	1.75	2.25
	2.375	1.50	1.375	1.75	2.00	1.875	1.625	2.00	2.50	1.75	2.25	2.50
	2.50	1.50	1.25	3.50	2.00	2.00	1.75	1.375	1.50	2.50	2.375	3.00
	2.25	1.25	1.375	3.625	1.50	2.25	1.875	1.125	1.875	3.00	2.25	3.125
	2.125	1.375	1.125	4.00	1.75	1.875	2.50	2.00	1.75	3.00	1.50	3.125
	1.875	3.00	1.50	1.50	1.625	2.00	2.625	2.00	1.50	2.75	2.375	2.25
	2.125	2.875	1.50	1.25	1.75	1.75	2.75	1.75	1.75	2.625	2.00	2.00
	1.75	2.00	1.75	2.00	2.00	1.50	2.25	1.875	1.875	2.50	2.25	2.25
	2.00	1.875	1.125	2.25	2.25	2.00	2.50	2.00	1.875	1.75	2.125	2.75
	1.50	1.25	1.375	2.50	1.875	1.625	1.50	1.875	2.00	2.00	1.875	2.00
	1.75	1.75	1.50	3.00	1.75	2.00	2.00	2.50	1.50	2.25	2.00	2.125
	2.00	1.25	1.625	2.00	1.75	2.25	2.125	2.375	1.625	2.50	2.00	3.00
	2.125	1.75	2.00	1.25	1.50	1.50	2.75	2.375	1.75	3.00	1.75	2.50
	2.375	1.875	2.125	2.50	2.125	1.625	1.875	2.50	2.00	1.875	2.50	2.50
	2.25	2.00	2.25	2.375	2.25	2.375	2.50	2.00	2.25	2.375	3.25	2.00
	2.25	1.50	1.50	2.25	2.375	1.50	1.50	1.50	2.375	3.00	2.50	2.25
	2.75	1.50	1.75	1.50	1.25	2.50	2.00	1.875	2.50	1.875	2.00	2.875
	1.50	1.625	1.25	1.875	1.25	1.75	1.75	2.25	1.25	1.25	2.50	1.75
	3.00	1.50	1.50	3.75	1.50	1.875	2.25	1.50	1.25	2.50	2.75	3.00
	2.50	2.00	1.50	3.75	1.625	3.00	2.125	1.375	2.00	2.50	2.75	2.00
Totals	110.25	91.875	77.00	115.50	87.625	100.75	106.625	96.00	90.50	114.875	102.75	122.00

	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.	No. of section.	In centimillimeters.	In thousandths of inch.
Recapitulation and reduction:												
Highest	B′	4.00	1.5748	B′	4.00	1.5748	B′	3.25	1.2795	B′	3.00	1.1811
	B″	3.00	1.1811	B″	2.375	0.9350	B″	3.00	1.1811	B″	3.25	1.2795
	B‴	2.25	0.8858	B‴	3.50	1.3779	B‴	2.50	0.9842	B‴	4.00	1.5748
Highest		4.00	1.5748		4.00	1.5748		3.25	1.2795		4.00	1.5748
Lowest	B′	1.50	0.5905	B′	1.25	0.4921	B′	1.50	0.5905	B′	1.00	0.3937
	B″	1.25	0.4921	B″	1.125	0.4429	B″	1.125	0.4429	B″	1.25	0.4921
	B‴	1.00	0.3937	B‴	1.00	0.3937	B‴	1.25	0.4921	B‴	1.50	0.5905
Lowest		1.00	0.3937		1.00	0.3937		1.125	0.4429		1.00	0.3937
Average	B′	2.205	0.8681	B′	2.31	0.9094	B′	2.133	0.8397	B′	2.298	0.9047
	B″	1.838	0.7236	B″	1.753	0.6901	B″	1.92	0.7559	B″	2.055	0.8000
	B‴	1.340	0.5275	B‴	2.015	0.7933	B‴	1.81	0.7125	B‴	2.44	0.9606
Average		1.794	0.7062		2.026	0.7976		1.954	0.7692		2.264	0.8913
Measurements above average		73			55			76			68	
Measurements below average		77			95			74			82	

TABLE X.—*Measurements of strain and stretch of crossbred wools produced by Baechtel Brothers, Willits, Mendocino County, California.*

	RAMS.								EWES.				RAMS.			
Catalogue number of sample...	439				437.				438.				426.			
	Strain.		Strain.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Strain.	
Actual measurement in grams and millimeters.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	rams.	mm.
	5.75	7.50	6.25	4.75	5.25	5.25	5.25	7.75	2.625	9.00	5.875	4.25	4.25	8.25	12.00	6.50
	7.75	7.00	8.00	8.00	4.00	7.00	6.00	8.125	5.50	4.25	4.375	4.25	7.25	5.875	9.50	7.00
	4.00	9.00	4.25	6.25	4.75	8.00	3.00	7.75	1.625	3.75	4.625	3.25	2.00	5.875	7.00	5.25
	3.75	8.00	7.00	6.50	4.50	7.75	4.25	7.00	8.50	6.25	4.00	2.75	4.25	7.75	10.00	8.25
	4.75	9.75	6.50	7.75	4.25	5.75	7.00	7.50	3.625	7.25	4.25	4.00	5.75	8.50	5.25	8.25
	3.75	7.75	7.25	7.00	3.875	6.00	4.25	7.00	2.625	6.00	2.375	2.00	4.25	8.00	8.00	6.00
	4.00	7.00	9.75	6.75	4.50	7.50	3.00	7.25	3.375	5.50	3.50	6.50	3.00	7.50	6.50	4.50
	5.25	8.00	7.00	6.50	5.00	8.00	4.75	7.75	4.00	6.50	5.00	2.25	5.00	5.75	5.00	6.00
	5.50	5.50	9.50	7.00	4.25	8.00	2.25	5.875	4.75	3.75	3.625	4.25	10.00	3.25	6.25	8.25
	14.00	8.75	8.50	5.00	3.25	8.00	5.25	7.25	8.375	2.50	4.25	1.50	10.00	6.75	11.00	6.875
	4.25	7.00	6.00	8.75	7.00	6.75	4.25	8.00	3.00	2.00	2.00	3.75	7.50	7.50	6.00	8.00
	4.75	7.00	9.75	7.50	5.75	4.00	4.50	8.25	5.50	5.75	2.625	3.50	4.25	3.50	7.75	7.00
	9.25	8.00	5.75	7.00	4.00	7.75	3.25	6.75	4.25	2.00	4.25	6.75	3.00	2.75	4.00	5.00
	6.75	7.50	10.75	8.50	3.25	6.75	4.25	6.50	2.375	2.25	3.375	3.25	5.50	8.00	5.25	7.875
	6.25	7.00	10.25	7.50	4.00	7.125	4.00	6.125	4.25	2.75	2.625	3.00	10.00	6.00	3.00	4.00
	8.25	9.75	5.50	6.00	4.25	7.25	4.25	7.25	3.50	2.00	3.50	3.50	4.00	2.75	7.50	6.00
	10.75	9.00	4.75	4.00	5.50	8.75	6.75	6.00	4.375	4.75	5.75	9.75	5.125	7.50	4.00	3.00
	4.00	7.75	6.75	5.00	3.00	6.00	4.25	7.00	3.50	4.25	4.75	7.75	4.125	4.125	4.50	3.50
	4.00	3.75	5.00	9.75	4.25	7.75	3.00	8.875	3.25	6.25	4.625	7.25	10.50	7.00	5.00	7.50
	4.25	5.00	6.25	9.25	3.00	4.125	5.00	5.25	3.25	2.00	4.50	2.00	3.00	3.00	3.00	6.50
	4.75	7.00	3.00	3.75	6.75	7.875	6.50	8.75	2.75	1.50	3.25	5.75	5.75	5.00	8.25	5.50
	4.50	7.25	3.25	5.25	4.75	7.25	3.00	7.75	4.375	5.00	2.625	2.25	4.00	4.875	4.25	6.25
	4.50	8.00	5.25	8.75	5.00	8.00	4.25	7.75	4.375	6.75	2.375	3.00	7.25	7.75	8.50	5.125
	4.50	5.00	3.50	8.00	5.25	5.50	3.00	6.25	5.25	6.25	3.25	2.25	3.00	6.875	4.25	4.25
	6.25	7.00	10.00	9.75	3.00	6.25	4.00	7.75	9.00	4.00	2.625	1.50	5.00	7.50	5.75	6.50
Totals	145.50	181.75	169.75	175.75	112.375	173.375	114.25	182.00	106.75	114.75	93.50	99.75	143.75	159.625	163.50	146.375

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapetulation and reduction:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	14.00	216.08	9.75	48.75	8.00	123.48	8.875	44.375	9.00	138.911	9.75	48.75	12.00	185.22	8.58	42.50
Lowest	3.00	46.30	3.75	18.75	2.25	34.75	4.00	20.00	1.625	25.176	1.50	7.50	2.00	30.87	2.75	13.75
Average	6.31	97.39	7.15	35.75	4.53	69.92	7.11	35.55	4.00	61.738	4.25	21.45	6.13	94.92	6.12	30.60
Tests above average	19		24		19		18		23		20		15		29	
Tests below average	31		26		31		21		27		30		31		21	

	EWES.				RAMS.				EWES.							
Catalogue number of samples..	425.				427.				428.				425.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	5.00	7.25	6.375	8.50	4.25	5.50	11.50	7.25	8.00	9.25	9.00	8.50	9.75	8.00	4.00	7.00
	6.00	8.25	4.375	6.75	7.25	7.25	4.375	6.25	5.25	4.00	7.75	7.50	7.00	7.50	4.75	8.125
	4.00	6.00	4.50	8.00	5.375	7.25	4.375	8.00	6.75	4.75	4.50	2.00	4.25	7.25	4.25	6.875
	6.375	6.00	4.00	8.25	5.625	3.25	5.00	5.50	9.25	4.25	10.75	9.50	4.25	4.25	5.25	5.50
	3.375	5.00	3.00	6.25	5.75	3.75	7.375	8.00	12.50	5.50	7.75	5.25	6.00	7.00	5.75	8.25
	4.375	7.75	4.375	7.25	4.375	8.00	4.375	1.00	9.75	7.00	4.75	5.50	7.75	7.00	5.75	7.00
	4.75	8.00	3.625	7.75	6.625	5.25	5.375	4.75	3.50	7.50	5.50	9.00	6.00	7.00	6.625	6.50
	2.75	3.75	4.625	8.00	4.375	6.00	7.625	7.50	3.50	4.00	2.50	4.00	9.00	8.75	6.125	6.50
	4.375	5.75	3.625	4.75	8.25	6.25	6.375	5.00	9.75	7.50	5.50	5.75	4.75	7.00	4.375	7.00
	6.25	8.75	5.50	4.00	4.625	4.75	4.625	3.25	10.00	7.50	5.75	5.50	5.75	7.75	5.625	6.00
	3.00	6.00	4.25	8.00	14.625	8.00	8.25	4.75	3.25	1.50	3.00	3.00	4.375	7.375	7.00	8.00
	5.50	7.25	5.375	8.25	3.375	1.50	5.25	6.00	5.00	4.50	8.75	8.50	4.625	8.25	5.75	7.25
	5.50	8.00	4.375	6.75	6.00	2.00	6.25	8.25	4.75	6.00	3.75	1.25	5.625	3.75	4.50	5.00
	7.50	7.25	6.50	9.00	5.625	1.50	6.50	8.00	7.75	2.25	5.75	8.00	5.875	7.50	4.25	1.00
	4.25	7.75	3.375	7.75	10.375	9.25	5.375	7.75	11.00	7.25	3.50	8.25	4.75	1.25	6.00	5.875
	7.25	7.75	4.375	9.00	12.625	8.00	4.75	7.75	4.25	4.50	5.50	3.50	5.75	7.125	5.25	8.00
	6.625	5.75	3.75	7.00	6.625	7.25	3.625	5.25	7.25	7.25	8.25	8.25	5.00	8.00	5.00	7.50
	6.00	9.00	4.625	6.00	5.375	4.75	5.00	4.00	4.75	2.75	8.00	8.00	6.65	8.00	5.50	8.00
	4.375	8.00	5.375	7.25	4.375	4.75	5.375	6.00	9.00	6.00	9.75	7.50	2.75	1.50	4.00	4.875
	5.625	6.25	4.625	8.00	6.00	7.00	4.75	3.75	5.00	7.00	4.75	9.00	3.00	2.875	7.625	3.00
	5.00	8.25	3.00	7.00	3.00	4.50	4.50	6.50	9.75	5.75	3.50	3.25	6.75	7.00	4.25	1.25
	5.375	9.00	6.00	8.25	5.03	7.75	2.375	3.00	10.75	7.75	6.00	3.00	7.25	8.00	3.625	7.00
	4.375	8.00	4.625	6.25	4.00	7.25	4.375	6.00	4.75	1.75	11.00	3.00	4.00	6.25	5.50	5.00
	7.375	8.75	4.00	6.00	5.00	5.00	2.50	1.75	7.25	5.25	7.00	8.50	5.50	7.00	3.00	5.00
	3.375	7.75	6.625	8.25	6.50	7.25	5.50	5.25	8.00	8.75	5.00	7.00	6.75	5.00	5.75	7.50
Totals	131.375	181.25	115.875	182.75	157.00	144.00	135.375	136.50	178.75	140.50	154.25	147.00	143.875	157.50	129.50	150.00

	Strain		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapetulation and reduction:	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	7.50	115.76	9.00	45.00	14.625	22.573	9.25	46.25	12.50	192.93	9.25	46.25	9.75	150.59	8.875	44.375
Lowest	2.75	42.45	3.75	18.75	2.50	38.58	1.00	5.00	2.50	38.59	1.25	6.25	2.75	42.44	1.00	5.00
Average	4.85	76.40	7.28	36.40	5.85	90.29	5.61	28.05	6.66	102.80	5.75	28.75	5.47	84.43	6.15	30.75
Tests above average	22		27		17		27		23		24		29		32	
Tests below average	28		23		33		13		27		24		21		18	

TABLE X.—*Measurements of strain and stretch of crossbred wools produced by Baechtel Brothers, &c.*—Continued.

RAMS.

Catalogue number of sample...	430.				828.				829.				830.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams*	*mm.*
	6.375	9.25	9.25	8.75	1.50	7.875	2.00	9.25	6.50	11.75	5.00	8.75	3.25	9.50	7.75	9.75
	5.25	8.25	5.25	6.75	2.25	8.25	1.25	8.75	4.25	9.75	3.75	4.00	4.00	8.75	3.00	8.75
	5.50	4.25	3.625	4.00	2.00	8.125	2.50	8.875	4.00	9.00	4.75	7.25	5.00	8.00	5.00	10.00
	5.375	8.00	4.00	4.00	1.25	6.25	2.125	10.125	8.00	8.50	6.25	10.50	6.25	8.50	4.00	12.00
	4.375	4.25	9.375	4.25	2.25	9.125	3.25	6.25	4.50	7.50	4.75	7.75	7.00	8.50	3.75	7.00
	6.25	6.75	6.00	5.00	3.00	7.25	2.00	8.50	4.50	7.00	3.25	8.00	6.25	11.00	3.75	7.00
	6.00	8.25	3.375	4.00	1.75	5.50	2.00	6.75	7.25	7.75	5.00	11.00	7.00	8.00	7.00	8.50
	4.375	6.75	5.375	6.50	2.50	6.75	1.25	4.75	4.50	4.50	4.00	9.00	6.75	8.75	8.75	10.00
	8.625	8.00	4.625	8.00	1.25	4.25	2.50	9.875	4.25	8.50	4.25	8.75	4.75	11.25	3.25	10.00
	4.625	3.00	4.50	8.25	4.75	8.875	1.75	6.00	3.75	4.50	3.25	2.00	6.00	7.75	7.25	10.75
	2.625	5.00	6.00	7.25	4.25	1.50	2.75	7.25	4.00	7.50	4.25	9.00	3.50	8.50	6.00	7.00
	5.00	8.25	3.375	8.50	2.00	10.75	2.25	6.75	3.00	2.50	8.00	10.00	7.25	9.00	4.75	11.00
	5.00	8.25	5.375	6.00	1.75	7.25	1.75	10.00	3.00	10.00	5.00	8.75	2.75	6.00	4.25	8.75
	10.25	4.75	5.00	8.00	1.75	7.00	2.75	6.875	4.75	10.00	6.00	7.25	4.50	10.00	7.75	11.75
	8.625	7.50	4.50	8.25	3.50	7.75	2.75	7.50	3.00	9.00	5.00	9.25	5.50	11.00	4.25	9.75
	5.375	7.25	3.50	6.00	1.75	9.50	2.125	6.50	4.00	8.75	4.00	10.75	4.25	10.00	5.00	11.00
	3.625	4.25	4.50	8.00	2.00	8.875	2.00	7.125	5.50	7.75	4.50	11.25	7.00	9.00	4.75	9.50
	7.00	8.75	5.00	7.00	2.00	9.75	1.75	8.25	9.75	8.25	4.00	8.75	7.75	9.75	6.00	10.50
	3.625	4.25	8.50	8.25	3.25	9.25	3.50	8.25	3.50	8.75	5.50	8.00	4.00	8.00	4.50	9.50
	10.375	5.75	8.00	8.25	1.00	5.25	2.00	6.75	4.00	10.00	3.00	8.75	6.25	7.50	6.25	9.75
	4.375	8.75	3.75	5.25	2.25	8.25	2.25	8.25	6.25	10.00	5.25	7.00	6.50	10.25	4.00	9.75
	5.375	6.75	4.00	7.00	2.00	8.75	3.25	9.00	4.75	4.00	5.00	9.50	6.50	11.00	4.00	9.75
	10.375	8.25	7.00	7.25	1.75	5.75	5.25	6.25	3.50	5.25	4.75	8.75	3.50	9.00	8.00	10.00
	5.375	5.50	4.375	7.25	2.25	6.75	8.50	5.00	2.75	3.00	3.50	9.00	6.25	8.75	6.25	10.50
	6.375	9.00	6.25	7.00	2.00	6.25	3.50	6.75	3.50	7.50	4.00	7.50	6.00	11.00	10.00	10.00
Totals	150.50	169.00	134.50	160.75	56.00	185.00	64.00	189.625	116.75	191.00	116.00	210.50	137.75	228.75	139.75	242.25

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	10.375	160.13	9.25	46.25	8.50	131.19	10.75	53.75	9.75	150.49	11.75	58.75	10.50	162.06	12.00	60.00
Lowest	2.625	41.52	3.00	15.00	1.00	15.44	1.50	7.50	2.75	42.44	2.00	10.00	2.75	42.44	6.00	30.00
Average	5.70	87.98	6.76	33.80	2.40	37.04	7.89	39.45	4.65	71.77	8.03	40.15	5.55	85.66	9.42	47.10
Tests above average	18		28		16		22		21		28		26		37	
Tests below average	32		22		34		28		29		21		24		13	

RAMS.

Catalogue number of samples..	831.				832.				833.				834.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	5.25	10.00	4.75	9.75	2.50	9.00	2.75	5.50	3.75	7.75	3.00	2.50	2.75	5.00	5.25	8.75
	4.00	9.00	4.50	10.25	2.25	9.00	2.25	1.75	4.75	6.00	6.00	6.00	6.75	8.75	5.00	5.25
	6.75	10.75	4.00	7.00	3.50	10.00	2.50	8.25	4.875	8.00	5.00	8.75	4.00	8.50	8.25	8.25
	4.00	8.00	5.00	9.00	4.25	5.75	2.50	7.75	6.25	5.75	5.25	8.75	4.00	5.00	7.00	8.25
	3.00	8.00	3.50	11.00	5.00	7.875	3.50	8.25	6.00	5.25	4.75	8.00	4.50	7.75	9.50	9.75
	4.00	7.00	4.00	7.00	2.75	7.25	3.50	6.75	5.75	7.75	2.625	6.00	4.25	7.00	5.75	9.00
	3.00	8.00	5.00	10.25	2.25	5.50	5.00	9.00	7.00	5.25	3.00	6.25	3.00	7.50	8.50	9.00
	5.25	8.00	4.50	8.75	4.00	7.50	9.00	9.875	8.875	7.50	3.875	7.00	4.75	8.75	4.75	9.75
	5.50	8.75	6.25	8.00	3.75	5.50	3.00	6.00	3.25	8.00	3.75	8.00	5.00	10.00	5.00	8.25
	2.75	6.50	6.00	8.75	4.75	7.75	3.50	7.55	6.75	6.125	3.00	7.25	8.00	8.50	3.25	8.25
	4.00	6.50	5.25	7.25	4.00	9.75	5.75	7.875	5.125	7.25	6.875	7.00	2.25	8.00	3.75	5.00
	7.00	8.25	3.75	9.75	3.50	8.25	3.00	5.22	5.50	7.00	3.375	6.00	6.25	5.00	3.00	9.00
	4.75	10.25	5.75	9.50	3.00	8.25	3.00	7.22	8.25	6.00	6.00	8.25	9.25	9.00	5.25	7.50
	5.00	7.00	4.50	9.00	5.50	6.75	3.50	7.125	8.75	9.00	7.00	6.875	5.00	7.00	6.50	7.75
	3.25	9.75	4.25	8.00	3.75	8.00	3.00	8.75	6.625	7.125	3.625	6.00	7.75	8.25	6.50	5.25
	3.00	10.00	7.25	8.75	5.75	6.125	8.00	9.875	3.75	8.25	3.50	6.50	5.75	7.75	4.00	8.00
	4.25	9.75	5.75	9.00	2.75	8.00	4.50	5.75	6.50	4.00	7.50	6.50	6.00	7.50	6.75	3.50
	6.75	9.00	4.00	4.75	2.25	4.00	6.125	7.75	4.00	8.00	11.00	7.25	8.75	9.00	3.50	7.25
	3.25	7.50	5.75	8.00	2.25	5.50	7.00	7.875	7.00	8.50	3.625	8.00	4.75	9.75	9.25	8.50
	3.75	9.75	3.75	9.50	6.50	8.875	11.25	9.25	6.00	7.75	5.50	7.125	6.00	7.50	6.75	8.00
	4.50	8.00	6.25	9.00	6.50	8.75	2.75	6.75	6.25	7.125	3.625	5.00	8.25	10.75	11.50	8.50
	3.50	6.25	3.00	8.00	4.00	7.00	4.50	9.75	8.75	8.25	8.75	5.25	8.75	9.75	7.00	7.25
	8.00	9.75	3.00	6.75	5.50	10.00	8.75	8.25	6.25	5.00	5.75	7.50	3.75	6.09	5.75	7.00
	4.75	9.00	3.75	7.50	4.00	5.25	4.00	7.75	5.00	7.00	7.875	5.25	6.75	8.00	5.50	7.50
	3.75	9.75	5.00	9.00	2.25	9.75	4.25	8.00	4.25	9.75	4.00	7.00	8.25	10.00	6.50	5.00
Totals	113.00	212.00	118.50	214.00	95.50	189.125	116.875	187.875	149.25	177.375	128.25	168.00	144.50	200.00	153.75	129.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	7.25	111.90	11.00	55.00	11.25	173.64	10.00	50.00	11.00	169.78	8.75	43.75	11.50	177.50	10.75	53.75
Lowest	2.25	42.44	6.25	31.25	2.25	34.93	1.75	8.75	2.625	43.99	4.00	20.00	2.25	34.73	3.50	17.50
Average	4.63	71.46	8.52	42.60	4.26	65.75	7.54	37.70	5.55	85.66	6.90	34.50	5.96	93.14	7.99	39.95
Tests above average	21		33		17		29		24		30		24		31	
Tests below average	29		22		33		21		26		20		26		19	

TABLE X.—*Measurements of strain and stretch of crossbred wools produced by Baechtel Brothers, &c.*—Continued.

RAMS.

Catalogue number of samples..	835.				836.				837.				838.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	8.00	7.00	6.25	8.00	4.00	8.25	5.00	7.00	9.00	7.00	5.00	9.00	5.75	8.00	8.75	8.00
	9.00	6.50	11.00	8.00	8.00	8.75	6.25	7.00	6.50	5.25	7.25	11.50	4.25	7.75	6.00	10.05
	9.75	5.00	6.00	5.50	4.25	7.00	4.75	7.25	8.00	9.00	5.00	8.50	5.50	7.75	6.00	8.20
	7.50	6.50	7.25	6.75	4.50	7.125	6.00	9.50	4.50	6.00	7.75	9.00	5.00	9.50	3.75	8.00
	5.75	8.75	3.25	8.00	4.25	6.00	3.25	5.25	6.00	6.50	7.25	6.25	4.25	8.75	8.75	8.50
	8.00	8.50	7.50	6.75	2.00	6.75	4.25	8.00	12.00	8.00	8.00	7.00	4.00	7.75	3.75	8.00
	3.50	3.50	8.50	4.50	2.75	6.125	4.25	7.875	6.00	5.00	4.75	4.00	5.00	8.25	4.25	8.00
	5.25	7.25	15.25	7.25	4.50	6.75	3.25	5.00	7.00	7.50	6.00	3.75	3.25	8.00	4.00	7.75
	6.00	7.75	9.00	8.25	3.50	8.00	4.50	6.25	8.00	7.75	7.00	9.00	7.25	8.00	6.50	9.75
	6.75	6.50	5.00	7.75	3.00	6.125	4.25	8.50	6.50	6.75	4.00	2.25	2.50	7.75	4.00	9.50
	4.75	9.00	4.00	8.50	9.00	7.00	6.75	9.00	7.00	6.00	7.00	9.50	3.25	6.00	4.50	8.00
	5.75	8.00	6.25	7.50	8.50	7.25	6.50	8.00	7.50	8.00	3.50	5.50	4.00	8.00	5.25	9.00
	8.00	4.50	7.75	7.50	3.75	5.00	4.25	8.125	6.75	2.00	6.75	8.25	6.50	8.00	4.75	10.00
	15.75	7.00	5.00	5.25	4.75	7.75	3.75	5.00	5.00	6.50	6.25	4.00	8.75	7.75	6.50	7.00
	6.00	9.00	3.75	8.25	4.25	8.125	3.50	8.50	15.00	6.75	7.00	8.75	3.75	8.25	3.50	7.25
	6.00	7.75	5.50	9.50	3.50	2.75	9.00	7.00	6.00	4.75	8.00	9.00	7.00	7.00	5.50	8.25
	6.00	8.00	4.75	5.00	4.00	5.00	6.00	3.50	7.00	7.00	6.25	6.50	3.50	7.75	3.50	8.50
	4.25	5.25	5.00	9.00	5.00	6.125	3.875	7.00	7.75	7.50	3.50	2.75	4.00	7.75	4.25	7.25
	11.00	7.25	13.00	9.00	7.50	7.00	7.00	6.00	8.50	5.25	5.00	5.25	5.00	8.75	3.50	9.00
	6.50	7.25	6.00	6.50	8.75	5.25	4.75	4.00	7.00	2.00	6.50	3.00	5.75	8.00	2.75	9.75
	14.00	7.75	4.75	9.50	4.00	4.00	5.25	3.50	6.50	6.00	9.75	7.00	3.75	8.75	3.00	9.25
	4.00	7.00	6.00	9.75	8.00	2.25	3.50	6.25	8.00	7.75	6.00	4.75	3.50	9.75	3.75	9.25
	6.00	6.50	6.75	9.00	4.50	5.25	5.00	8.00	7.00	7.00	9.50	7.00	3.50	8.75	3.25	9.75
	4.00	5.50	4.00	3.25	4.25	5.25	7.25	7.00	10.00	8.00	6.50	8.50	4.50	7.25	3.75	9.75
	6.00	7.00	7.00	7.75	4.25	5.25	4.00	4.25	9.00	6.50	13.00	6.50	5.00	9.50	3.00	9.25
Totals	180.50	175.00	174.50	176.50	113.75	155.125	125.75	161.00	183.50	157.75	168.50	181.25	115.00	200.75	117.00	216.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	19.00	293.26	9.75	48.75	9.00	138.91	8.75	43.75	13.00	200.65	11.50	57.50	8.75	135.052	10.00	50.00
Lowest	3.25	50.16	3.25	16.25	2.00	30.87	2.75	12.75	3.50	54.04	2.00	10.00	2.50	38.586	6.00	30.00
Average	7.10	109.50	7.00	35.45	4.78	73.78	6.32	31.00	7.00	108.04	6.38	31.90	4.70	72.54	8.33	41.65
Tests above average	18		27		16		27		19		29		19		20	
Tests below average	32		33		34		23		24		21		31		30	

RAMS.

Catalogue number of samples..	839.				840.				841.				842.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	8.25	8.00	7.50	8.75	4.625	7.00	6.125	8.375	8.00	5.00	3.50	7.00	4.25	7.25	4.75	8.50
	6.50	7.50	10.00	8.75	5.50	6.00	4.75	7.25	5.50	3.50	5.00	10.125	5.00	6.50	4.00	9.00
	9.00	8.00	7.50	9.00	9.50	8.00	3.125	6.375	7.50	4.50	3.25	8.75	3.25	6.50	7.00	11.50
	6.75	9.00	8.00	8.00	4.375	6.50	3.625	8.75	7.75	7.125	6.50	10.25	4.75	6.25	7.00	11.50
	11.00	8.00	9.50	9.50	5.50	6.25	3.75	9.00	6.25	7.75	4.75	3.875	4.00	7.00	4.00	8.50
	6.50	7.50	11.25	9.75	2.50	3.00	4.00	8.00	5.00	7.75	3.75	10.00	4.75	7.50	4.25	9.00
	9.00	5.00	6.75	9.00	6.125	6.00	3.50	7.00	4.75	8.125	5.25	7.25	8.00	8.00	3.75	8.75
	6.75	8.50	10.25	8.00	5.00	7.00	3.50	7.25	8.25	7.50	4.75	9.25	4.75	7.75	4.50	4.50
	7.25	7.00	7.00	9.00	5.375	7.00	3.75	8.25	5.50	8.25	5.25	7.25	4.00	6.50	5.50	7.50
	6.00	7.00	11.00	8.00	5.875	8.00	6.625	9.50	4.00	6.75	8.00	8.75	3.75	6.25	4.75	8.50
	9.00	8.00	11.00	9.00	6.25	8.25	2.75	5.00	3.75	2.50	3.50	8.50	5.00	6.75	4.00	9.00
	15.00	9.25	6.00	6.50	4.50	7.25	2.00	2.75	4.50	4.125	3.50	8.00	5.00	7.50	4.75	7.50
	12.25	9.75	8.75	8.75	8.375	8.25	3.25	6.25	4.50	5.00	4.00	6.50	5.75	8.00	3.25	6.50
	9.25	8.00	5.75	7.50	9.50	9.00	4.25	5.75	3.75	8.00	4.25	9.25	5.00	7.75	6.00	5.25
	7.00	6.00	5.00	8.00	4.625	8.00	3.00	7.25	4.25	9.00	2.75	7.00	5.00	5.75	6.50	10.00
	7.25	8.75	14.25	9.50	5.00	6.00	7.50	9.375	4.00	5.50	4.25	9.75	15.00	7.75	4.00	7.00
	7.00	6.75	15.00	7.50	3.00	5.20	3.75	9.00	7.25	7.75	2.50	6.25	11.00	10.00	4.75	8.50
	10.00	15.00	6.75	11.00	4.25	8.00	4.50	7.875	3.125	7.25	3.25	9.75	4.25	9.00	4.75	8.75
	8.00	9.00	14.00	9.00	5.00	6.50	5.25	9.125	4.75	6.75	4.00	7.25	6.25	8.00	5.00	7.75
	7.50	9.00	6.00	6.50	3.00	7.00	3.00	6.125	4.75	5.25	5.50	6.50	5.25	9.50	4.00	10.00
	5.75	9.25	5.75	6.00	4.125	8.00	5.00	9.00	4.00	10.00	5.75	4.875	4.00	10.25	5.00	9.75
	11.75	8.25	14.00	9.00	8.00	8.25	4.125	8.875	4.00	10.25	0.75	8.00	4.75	9.50	6.00	8.00
	11.00	8.75	9.75	8.25	4.25	7.50	4.00	8.00	8.00	8.00	2.75	1.125	4.00	9.00	4.75	7.50
	15.00	9.25	5.00	5.25	4.00	4.75	4.00	9.00	3.50	8.50	3.25	4.50	5.75	8.25	5.00	9.00
	6.00	8.75	7.00	5.00	4.375	6.75	4.125	7.125	5.50	6.75	3.75	9.00	8.00	10.50	4.00	9.75
Totals	215.25	198.25	209.75	205.75	129.125	171.00	104.25	196.25	123.125	169.375	105.75	184.75	135.50	107.00	121.25	206.50

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	14.25	219.94	11.00	55.00	9.50	146.63	9.50	47.50	8.25	127.343	10.50	52.50	11.00	169.78	11.50	57.50
Lowest	5.00	77.173	2.00	10.00	2.00	30.87	2.75	13.75	2.50	38.59	1.125	5.625	3.25	50.102	4.00	20.00
Average	8.50	131.194	8.00	40.4	4.66	71.93	7.34	36.70	4.66	71.93	7.06	35.40	5.13	79.179	8.07	40.35
Tests above average	24		28		17		25		24		28		14		23	
Tests below average	26		22		33		25		26		22		36		27	

TABLE X.—*Measurements of strain and stretch of crossbred wools produced by Baechtel Brothers, &c.*—Continued.

	RAMS.															
Catalogue number of sample...	843.				844.				845.				846.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	3.25	9.75	3.50	9.00	5.25	6.25	4.00	8.00	4.50	9.75	4.00	8.25	4.25	9.75	7.25	9.25
	5.00	8.00	1.75	7.50	8.00	8.75	6.625	9.00	11.00	10.00	5.00	7.50	3.25	8.25	1.75	6.75
	2.75	7.25	3.00	9.75	4.625	7.00	8.00	8.875	8.00	13.00	5.50	8.50	3.75	9.25	4.35	4.25
	4.25	8.25	3.00	9.00	3.25	7.00	5.50	8.00	6.00	9.75	3.00	6.00	3.50	10.125	2.75	3.50
	3.75	4.00	3.75	8.75	5.625	7.125	3.25	6.00	6.25	10.00	7.00	9.75	5.00	9.25	2.25	4.75
	7.00	7.75	3.75	10.75	3.75	7.125	4.625	8.00	6.00	9.75	3.50	8.50	3.00	8.25	3.00	8.50
	4.00	9.75	3.00	11.50	7.25	8.00	3.00	6.00	5.50	9.50	4.50	10.00	4.25	10.75	8.50	8.25
	3.50	9.00	3.25	11.50	6.625	9.25	2.50	6.75	7.00	6.00	3.75	8.75	9.00	10.75	3.75	7.75
	5.25	8.00	3.00	9.25	3.75	8.125	7.50	8.75	6.50	9.25	5.00	8.00	3.50	8.50	4.50	9.875
	3.00	7.75	4.00	10.50	5.00	8.00	3.50	9.00	4.75	9.75	8.00	9.00	5.25	11.50	3.50	9.125
	4.25	9.50	3.25	8.00	5.25	6.125	3.50	9.50	4.75	7.50	4.50	9.25	4.00	11.50	2.75	5.50
	3.00	9.25	2.75	8.25	5.25	7.875	4.00	7.875	4.75	9.00	5.00	10.00	7.00	9.25	5.25	8.75
	2.75	7.75	4.25	8.75	5.00	7.00	4.25	9.00	5.00	9.75	5.00	9.00	7.00	10.25	3.00	7.50
	2.75	8.50	2.00	7.25	5.375	8.00	5.25	9.00	10.75	8.75	4.75	10.00	9.50	8.25	8.00	0.75
	2.75	8.50	2.25	7.75	5.00	8.00	5.00	6.125	6.00	10.25	4.00	10.00	8.25	10.25	3.75	18.75
	3.75	8.00	3.00	7.00	6.875	8.25	6.50	9.75	4.00	9.00	4.00	8.75	7.75	9.00	8.00	0.25
	5.25	9.00	5.00	8.75	4.375	7.00	4.625	8.00	4.00	9.50	4.00	8.00	7.25	10.75	3.75	18.00
	2.75	5.75	3.50	8.00	8.50	8.75	7.25	9.75	6.00	11.50	6.00	10.00	3.25	10.50	3.75	0.75
	3.50	8.25	3.50	8.75	8.75	8.00	4.75	9.25	6.00	11.50	4.00	9.75	4.25	9.75	3.00	11.00
	2.50	7.75	4.75	10.50	5.00	9.00	4.00	9.25	5.00	9.00	4.00	7.50	4.25	6.75	8.50	11.50
	8.75	9.50	2.25	9.00	6.125	9.50	3.50	6.00	4.00	9.50	3.00	8.00	5.75	10.25	4.00	19.75
	3.25	8.75	4.75	9.50	4.50	7.75	5.25	7.00	6.00	11.50	3.75	11.00	6.75	10.75	3.25	0.00
	2.25	7.00	3.75	10.25	4.375	8.50	5.875	9.00	6.00	8.75	8.50	13.00	2.25	8.25	4.50	19.00
	3.00	9.75	2.25	7.75	5.50	9.00	3.75	8.625	8.00	10.75	3.50	10.25	4.75	10.00	2.75	8.50
	2.75	9.25	2.50	8.00	10.50	8.125	3.00	7.50	4.50	10.25	4.75	9.00	3.75	7.25	5.00	10.00
Totals	96.75	206.75	81.75	225.00	143.50	197.50	119.000	204.00	152.25	243.25	118.00	227.75	130.50	239.125	110.75	212.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	7.00	108.042	11.50	57.50	10.50	162.063	9.75	48.75	11.00	169.78	13.00	65.00	9.50	146.63	11.50	57.50
Lowest	1.75	27.01	4.00	20.00	2.50	38.586	6.00	30.00	3.00	46.304	6.00	30.00	1.75	27.01	4.25	21.25
Average	3.77	58.188	8.63	43.15	5.26	81.186	8.03	40.15	5.40	83.35	9.42	47.10	4.82	74.394	9.025	45.120
Tests above average.....	14		27		18		23		21		23		18		28	
Tests below average.....	36		23		32		27		19		27		32		22	

	RAMS.				EWES.											
Catalogue number of samples..	847.				431.				435.				861.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	3.50	8.00	6.00	10.00	5.25	8.25	5.50	5.25	6.625	9.75	4.375	6.50	4.00	9.50	3.50	9.00
	4.50	10.75	6.00	8.50	6.00	9.50	9.00	9.25	6.625	8.25	3.50	4.00	5.00	7.50	3.00	8.75
	4.25	8.75	4.25	8.25	11.00	8.50	7.50	7.75	6.50	8.00	6.50	8.50	3.75	7.50	4.50	9.00
	4.75	11.00	5.50	8.00	12.50	5.75	11.50	9.75	5.375	7.75	2.50	1.75	5.00	10.00	3.00	8.75
	6.00	9.25	3.00	8.50	12.50	7.50	6.75	6.00	5.50	9.50	4.375	6.75	3.75	8.75	3.00	9.00
	4.75	10.25	4.00	6.25	4.75	2.00	5.75	2.75	5.625	10.75	4.625	8.00	5.25	9.75	4.00	9.25
	4.00	10.00	5.00	8.00	6.00	8.00	6.50	3.50	6.50	8.00	6.375	6.25	5.00	9.00	3.50	10.50
	4.75	10.00	4.00	11.00	6.00	5.00	17.75	8.25	5.50	7.25	5.625	8.75	3.00	9.00	3.25	9.25
	4.00	9.75	6.25	11.00	5.00	3.75	5.50	7.00	3.375	6.25	5.625	10.00	4.00	9.50	5.00	8.00
	4.60	10.25	4.50	8.00	4.00	2.50	12.50	10.00	4.25	6.00	3.75	4.00	2.75	7.00	4.00	9.75
	6.00	10.25	6.25	8.50	4.75	5.00	10.00	7.25	4.00	6.00	3.50	4.50	6.00	10.00	4.00	9.25
	4.50	11.50	6.00	10.00	8.75	9.00	14.50	7.25	8.375	7.00	4.375	7.25	4.75	9.00	2.75	8.75
	4.00	10.00	3.00	7.75	4.75	1.25	10.00	6.50	4.375	6.25	6.50	9.00	3.25	8.25	3.25	10.25
	3.00	9.00	3.75	7.25	4.75	1.75	6.00	6.50	5.375	6.75	4.625	7.75	5.00	11.75	4.75	9.25
	4.00	10.25	3.00	9.00	9.50	2.00	6.75	7.75	3.625	7.25	5.25	7.50	3.75	9.00	3.25	10.00
	5.50	11.00	4.00	9.75	9.75	7.50	5.75	8.00	4.50	3.50	8.50	8.50	3.75	8.50	5.50	10.50
	5.25	9.25	5.25	9.75	6.50	7.75	5.75	9.00	7.625	6.75	4.375	2.75	3.00	4.00	3.75	9.75
	3.75	9.75	5.00	10.00	5.00	8.00	10.25	8.25	9.625	7.00	4.25	7.75	6.00	8.50	4.00	9.75
	4.75	10.25	5.75	7.00	5.00	2.25	5.25	3.25	3.375	5.75	3.50	6.25	5.50	10.25	3.75	11.00
	4.75	10.50	6.00	9.75	5.00	8.75	5.75	2.50	7.25	6.25	3.50	7.25	4.00	11.00	4.00	10.75
	3.25	10.00	4.00	9.00	6.00	8.50	6.75	9.00	3.625	7.00	5.375	6.25	5.00	6.00	3.75	10.75
	3.50	8.25	6.00	10.75	7.00	8.25	6.00	6.50	7.25	8.75	3.625	6.25	3.00	9.00	3.25	8.25
	4.00	10.25	6.00	8.75	13.75	7.00	6.00	6.50	4.00	8.50	7.00	9.50	3.25	11.25	4.50	10.00
	4.00	6.00	6.25	9.00	7.00	6.75	9.50	7.00	6.50	10.00	5.00	10.00	3.00	8.00	2.50	7.50
	2.75	8.25	8.25	10.25	9.00	8.00	3.75	3.00	4.50	6.50	3.25	6.25	3.00	10.00	3.25	10.25
Totals	107.50	242.50	127.00	224.00	179.50	152.50	200.25	167.75	140.875	184.75	119.875	171.50	103.75	222.00	93.00	236.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	8.25	127.334	11.50	57.50	17.75	273.961	10.00	50.00	9.625	148.55	10.75	53.75	6.00	92.61	11.75	58.75
Lowest	2.75	42.444	6.00	30.00	3.75	57.88	1.25	6.25	2.50	38.59	1.75	8.75	2.50	38.59	6.00	30.00
Average	4.70	72.542	9.33	46.65	7.60	117.30	6.41	32.05	5.22	80.57	7.13	35.65	3.93	60.66	9.16	45.80
Tests above average.....	24		27		17		33		21		25		[illegible]		[illegible]	
Tests below average.....	26		23		33		17		26		25		27		24	

TABLE X.—*Measurements of strain and stretch of crossbred wools produced by Bacchtel Brothers, &c.*—Continued.

EWES.

Catalogue number of sample...	869.				870.				871.				872.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	3.75	9.00	4.25	9.50	4.625	8.25	5.50	9.00	8.25	8.50	3.50	9.00	5.375	7.00	4.00	9.125
	7.00	10.25	2.25	7.00	1.50	8.00	7.50	10.25	7.00	8.50	5.50	10.00	4.375	7.25	4.875	8.875
	3.25	9.75	7.75	9.00	1.625	5.75	4.625	6.50	6.75	8.00	4.25	9.00	4.75	8.25	4.00	4.50
	8.50	10.25	4.25	9.00	2.625	7.25	5.625	6.75	6.25	8.50	6.25	9.75	4.625	8.00	3.50	7.125
	4.00	9.25	7.00	9.75	3.375	9.00	2.625	7.25	6.00	10.25	6.50	9.75	2.25	4.75	3.625	7.00
	7.00	8.50	4.00	4.75	1.375	5.75	5.75	8.125	6.00	8.00	7.00	9.75	4.00	9.75	2.875	9.875
	5.00	8.50	4.75	10.25	6.625	10.75	3.00	7.50	6.25	8.00	3.00	8.75	4.50	9.00	2.375	9.125
	7.00	11.00	5.75	9.00	2.375	6.50	5.25	8.875	6.75	8.00	3.25	8.50	4.50	8.125	6.625	8.875
	3.00	9.00	4.75	10.00	2.625	7.00	1.50	6.75	6.25	4.75	6.50	9.25	5.25	9.00	4.00	5.125
	8.75	8.50	6.50	10.00	1.625	4.00	2.75	7.75	3.75	8.00	7.50	8.25	5.00	9.00	3.125	9.00
	6.00	9.75	3.75	5.00	3.625	7.00	1.50	5.00	10.25	8.00	7.00	8.75	4.00	9.00	2.375	8.25
	4.00	8.00	5.25	8.75	4.625	9.50	2.375	7.75	2.50	5.25	5.00	9.75	4.50	9.50	4.50	9.00
	6.50	6.25	6.25	9.50	2.50	7.00	4.375	7.875	5.75	10.50	7.25	9.00	3.50	5.125	4.125	8.00
	4.00	9.00	5.50	9.50	4.00	7.75	1.50	8.75	6.00	11.25	4.25	10.50	6.00	9.25	4.125	9.75
	7.75	8.00	7.00	7.25	3.25	7.00	3.25	8.75	5.50	8.00	8.50	10.25	3.50	7.875	2.375	9.00
	5.00	8.25	4.75	9.75	3.625	8.00	3.50	7.875	3.75	9.75	6.50	9.25	4.875	9.25	5.00	8.00
	4.25	7.50	10.75	7.50	3.375	6.875	2.50	8.875	5.50	9.25	5.50	9.50	4.25	9.00	3.50	9.00
	5.25	8.00	6.75	10.75	5.375	7.50	1.50	8.25	4.25	10.25	3.50	8.00	3.75	9.00	3.50	7.25
	6.75	4.75	4.00	9.00	7.25	9.00	5.00	9.50	2.00	7.00	5.75	9.50	3.00	8.00	3.00	8.00
	6.00	7.00	3.75	8.75	5.50	6.75	7.75	9.375	7.00	11.00	3.50	8.00	3.375	8.00	2.50	6.50
	3.50	8.00	7.00	7.50	2.25	8.125	1.625	10.00	8.00	9.00	6.25	9.50	4.00	8.875	3.625	8.00
	6.75	10.00	6.75	9.75	1.375	2.875	3.375	8.00	4.50	9.50	5.00	10.75	4.00	8.50	2.75	8.25
	3.75	7.00	5.50	7.00	2.625	6.25	1.75	6.875	6.00	9.50	4.75	9.00	3.50	8.25	4.50	6.00
	3.75	7.50	3.50	8.75	3.625	5.50	2.625	7.50	3.50	10.00	2.50	3.25	5.75	8.75	5.00	9.00
	4.25	5.00	3.75	8.00	3.50	7.00	1.50	9.50	3.75	6.50	5.25	9.25	6.25	9.00	3.00	9.00
Totals	134.75	208.00	135.50	211.00	84.875	179.375	86.25	204.625	141.50	215.25	134.75	207.25	106.875	207.50	90.875	201.625

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	10.75	165.93	11.00	55.00	7.50	115.76	10.75	53.75	10.25	158.20	11.25	56.25	8.00	123.477	9.75	48.75
Lowest	2.25	34.73	4.75	23.75	1.50	23.15	2.875	14.375	2.00	30.47	3.25	16.25	2.25	34.727	4.50	22.50
Average	5.40	83.35	8.38	41.80	3.42	52.79	7.68	38.40	5.52	77.90	8.85	44.25	4.11	69.31	8.18	40.90
Tests above average	23		20		21		26		26		28		23		29	
Tests below average	27		21		29		24		24		21		27		20	

EWES.

Catalogue number of samples..	873.				874.				875.				876.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
Actual measurement in grams and millimeters.	3.50	7.50	3.75	8.25	8.00	9.50	4.00	9.50	3.25	7.50	5.25	9.50	8.00	9.00	5.25	8.50
	6.00	10.00	3.75	8.00	4.75	10.00	7.00	8.50	3.75	8.00	3.00	9.50	8.50	9.25	6.25	6.875
	4.75	8.00	4.00	5.75	2.00	8.00	3.50	7.75	3.00	8.75	7.50	11.25	4.125	9.00	7.00	9.00
	5.00	10.00	4.00	8.50	4.00	8.75	3.00	8.50	3.00	7.50	5.00	9.75	4.375	7.75	9.00	9.00
	4.00	9.75	5.50	8.75	3.50	7.00	3.75	10.00	3.25	10.00	4.25	10.00	7.25	8.75	3.50	8.00
	4.00	8.00	6.50	8.00	4.75	10.25	3.00	8.00	5.00	11.00	6.00	10.00	4.75	6.75	3.50	7.00
	5.75	10.00	4.50	7.75	3.00	5.75	7.25	10.00	3.25	7.00	3.75	8.00	5.875	8.25	6.50	9.00
	6.50	8.25	3.00	6.00	3.75	6.00	4.00	9.25	5.75	10.25	3.50	10.00	6.50	8.75	4.125	7.875
	4.50	7.50	5.00	8.75	3.75	10.50	4.25	9.75	4.50	9.00	5.25	9.25	4.25	7.75	6.00	8.125
	7.00	8.00	2.75	7.00	3.75	9.00	4.25	10.00	3.50	10.25	4.00	8.25	8.00	9.00	9.00	7.00
	2.00	5.25	4.00	7.00	2.00	6.00	4.00	7.75	3.50	11.00	3.00	3.25	7.00	9.75	6.50	8.25
	3.00	7.25	3.75	5.00	5.00	10.40	3.00	7.25	5.00	8.75	5.00	10.75	8.25	10.125	5.875	8.00
	7.00	9.25	4.25	9.75	3.50	9.00	3.00	7.25	3.00	7.75	3.50	10.25	11.25	10.25	7.50	9.25
	3.75	8.00	4.25	8.75	4.00	10.00	3.75	9.00	5.75	9.75	6.75	7.75	8.625	8.00	5.00	8.75
	6.25	8.50	4.75	9.50	4.50	10.00	3.25	10.00	3.25	10.00	5.75	10.25	3.625	7.75	7.25	8.00
	7.50	7.25	4.25	8.75	4.00	10.00	3.50	9.00	4.00	10.75	3.25	10.00	4.75	8.00	8.625	8.875
	4.00	6.75	7.75	9.25	4.00	11.00	3.25	10.00	2.25	8.00	4.00	5.75	11.75	9.50	10.125	9.00
	7.00	8.25	4.00	9.75	4.50	7.00	3.00	8.50	3.25	11.25	3.00	10.00	8.00	9.00	6.00	6.00
	3.50	6.25	4.75	8.00	4.25	9.50	4.25	9.00	2.00	7.00	3.25	5.00	5.00	8.75	7.00	9.00
	3.50	9.25	3.00	8.00	4.00	7.75	2.50	7.25	3.75	9.00	7.25	8.00	5.50	7.00	8.00	7.00
	3.75	8.00	5.25	9.75	7.00	8.75	4.25	9.75	3.25	9.50	6.75	9.75	8.75	9.25	7.875	9.50
	4.00	7.75	4.00	7.00	3.75	9.00	3.50	11.25	6.00	8.25	5.00	9.75	6.125	8.125	5.75	8.875
	3.75	9.00	5.00	9.75	4.25	8.00	2.50	3.75	4.00	8.50	3.25	8.75	8.00	10.00	5.00	9.50
	4.75	8.75	4.50	9.00	4.50	9.50	2.25	3.00	5.25	9.00	9.00	9.00	10.00	8.875	8.00	9.75
	3.50	8.25	5.00	8.25	2.75	7.00	5.25	8.00	3.00	9.25	3.50	8.75	5.50	8.125	6.625	7.00
Totals	118.25	204.75	111.25	204.75	100.75	217.25	95.75	212.00	96.50	221.50	127.75	212.50	175.75	216.50	162.25	206.125

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	7.75	119.62	10.00	50.00	8.00	123.47	11.25	56.25	9.00	138.91	11.25	56.25	11.75	181.36	10.25	51.25
Lowest	2.00	30.87	5.75	28.75	2.00	30.87	3.00	15.00	2.21	34.73	3.25	16.25	3.00	46.30	6.00	30.00
Average	4.59	70.85	8.10	40.95	3.93	60.563	8.58	42.90	4.50	70.09	8.68	43.40	6.75	104.34	8.45	42.25
Tests above average	28		25		24		20		17		34		23		26	
Tests below average	30		25		26		21		33		16		27		24	

TABLE X.—*Measurements of strain and stretch of crossbred wools produced by Baechtel Brothers, &c.*—Continued.

EWES.

Catalogue number of sample...	877.				432.				858.				859.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	5.50	9.25	5.875	8.25	5.75	6.00	5.75	0.75	12.75	10.75	7.75	7.25	6.75	7.50	9.75	8.00
	6.125	8.25	5.00	10.50	6.00	2.125	9.25	6.875	8.25	12.00	12.00	13.00	5.00	8.25	6.50	8.00
	5.25	8.875	4.00	8.50	4.00	4.50	3.25	4.75	15.00	11.75	10.00	11.00	8.00	6.25	6.25	8.00
	4.75	10.25	8.50	9.875	12.50	7.00	10.00	6.00	11.00	10.00	10.00	10.00	7.50	8.50	5.75	9.75
	5.50	9.75	4.50	9.75	6.50	7.00	5.75	4.25	15.00	10.50	8.75	8.25	6.50	9.00	6.75	8.75
	4.75	9.75	5.50	9.00	3.125	0.75	5.00	5.00	15.00	9.50	9.00	9.50	4.50	8.25	4.75	8.25
	3.25	11.00	7.50	9.25	6.75	8.00	5.75	8.25	10.25	11.00	11.00	11.00	8.00	7.75	6.50	8.00
	5.75	10.125	6.50	11.00	8.50	4.50	9.50	6.75	13.25	9.75	7.00	8.00	5.75	9.75	5.50	8.25
	4.50	9.25	5.00	10.25	8.00	8.00	6.25	4.50	10.00	9.75	9.00	8.75	7.25	9.50	11.50	9.75
	4.875	10.00	6.25	9.125	7.25	6.875	3.50	4.875	7.75	11.00	10.00	9.00	5.00	6.75	5.75	7.50
	3.00	9.00	4.625	10.75	5.25	8.00	6.75	8.125	9.00	8.50	11.00	9.75	5.25	9.00	9.00	7.00
Actual measurement in grams and millimeters.	4.375	7.75	3.25	8.25	8.25	7.00	5.125	5.25	10.00	11.00	11.25	10.50	6.25	9.75	4.00	9.75
	6.375	9.50	3.75	10.00	4.00	4.00	5.75	4.125	10.00	9.00	9.50	9.75	5.25	7.75	4.00	8.00
	3.25	9.00	5.00	9.00	6.50	7.75	4.00	4.50	10.50	10.00	10.75	10.25	6.50	7.00	14.00	9.00
	5.625	10.00	4.625	10.75	12.75	6.00	5.00	7.50	9.00	10.25	11.50	10.00	11.75	10.25	4.75	9.25
	3.625	10.50	3.75	9.00	5.00	5.75	6.75	6.00	9.50	9.00	12.50	9.00	4.50	7.50	6.25	8.25
	5.375	8.75	7.25	10.75	9.00	8.50	5.75	5.50	10.50	9.00	8.00	7.75	8.50	8.00	7.25	9.00
	5.50	10.00	6.00	13.25	3.75	7.00	4.00	5.125	16.50	10.00	11.50	9.00	6.50	8.50	9.00	9.75
	5.00	8.25	6.375	10.50	4.00	3.00	5.75	3.50	7.00	8.75	12.00	9.00	5.50	8.50	19.00	11.50
	3.375	8.50	3.50	9.00	9.50	8.875	6.00	7.00	11.00	9.00	10.00	9.00	9.50	9.50	13.25	10.00
	5.00	9.75	2.25	9.00	3.25	1.00	10.50	4.25	7.50	10.50	9.75	9.00	6.50	11.00	10.00	8.50
	3.25	8.50	2.25	7.25	8.75	5.00	9.50	6.00	9.00	10.00	8.25	11.00	4.75	6.00	2.50	8.75
	5.00	9.50	5.00	8.00	6.00	6.25	6.50	7.75	11.00	10.00	7.50	9.50	8.50	7.75	4.25	9.00
	4.25	9.375	5.75	8.75	5.25	6.75	6.125	6.50	6.00	9.50	15.00	10.25	6.50	6.25	5.00	8.00
	4.875	10.50	3.25	8.25	5.75	6.00	5.00	4.50	12.00	10.75	14.00	11.00	9.50	9.00	6.00	9.00
Totals	113.125	235.375	124.75	238.00	165.375	145.125	156.50	137.625	266.75	251.25	257.00	230.50	169.50	207.27	187.25	219.00

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	7.50	115.76	13.25	66.25	12.75	196.79	8.50	42.50	15.00	231.52	13.00	65.00	19.00	293.28	11.50	57.50
Lowest	2.25	34.73	7.25	36.25	3.125	48.93	0.75	3.75	6.00	92.61	7.25	36.25	2.50	38.59	6.00	30.00
Average	4.75	63.61	9.46	47.30	6.44	99.40	5.68	28.40	10.45	161.29	9.63	48.15	7.13	110.05	8.52	42.60
Tests above average	29		24		20		28		[illegible]		29		18		22	
Tests below average	21		[illegible]		30		22		27		21		[illegible]2		[illegible]	

EWES.

Catalogue number of samples..	860.				861.				862.				863.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	3.50	7.50	10.00	9.00	7.00	11.00	7.75	8.50	4.50	7.25	7.375	8.25	11.00	7.50	8.00	9.00
	4.50	8.125	4.375	6.50	5.50	7.00	8.75	10.25	6.375	8.75	5.375	9.25	5.25	8.75	7.25	7.50
	6.00	9.00	4.50	9.125	10.00	10.25	9.25	10.75	6.75	7.25	7.625	9.25	4.50	9.50	13.75	9.50
	4.375	8.625	5.00	8.125	7.75	10.50	6.50	9.50	2.625	8.00	3.625	6.25	7.50	10.50	14.50	10.50
	5.25	8.00	5.375	9.50	8.50	9.25	8.00	9.75	10.625	8.25	3.625	7.50	15.00	10.50	8.25	9.00
	7.375	9.00	3.875	7.25	8.00	9.25	9.75	9.00	6.50	10.25	4.625	7.25	7.00	9.50	10.25	9.75
	4.875	9.25	4.375	10.00	8.25	10.25	7.00	8.00	7.375	7.25	5.25	9.25	5.50	10.00	16.00	10.75
	5.25	8.50	4.00	6.625	8.50	11.50	9.25	10.75	6.00	7.75	4.25	6.25	12.75	9.75	5.75	9.50
	2.25	7.00	3.50	8.75	7.00	10.00	7.75	9.50	6.375	6.875	6.125	6.875	13.75	13.00	5.75	9.00
	4.25	9.00	4.00	5.50	6.25	12.00	7.50	11.00	9.625	8.25	7.625	6.50	15.25	13.00	19.50	9.75
	5.00	8.25	6.00	8.75	6.50	8.00	5.75	8.00	4.625	6.00	4.625	5.75	13.00	9.75	8.50	12.00
	3.625	5.75	2.00	5.25	9.75	10.00	6.25	8.75	8.75	7.875	4.625	6.75	8.75	6.00	15.00	11.00
	4.25	8.00	4.75	8.00	4.00	9.00	10.00	10.00	3.625	4.50	6.00	9.00	9.75	11.50	8.00	8.75
	5.00	9.00	3.375	5.875	6.50	7.00	8.00	17.00	6.25	9.00	7.00	6.50	11.00	11.00	13.25	9.75
Actual measurement in grams and millimeters.	5.00	8.375	2.25	9.00	7.25	10.75	4.50	8.00	8.375	6.75	5.625	7.25	13.50	9.50	14.50	9.50
	5.875	9.00	4.50	8.875	7.00	9.50	5.75	9.00	8.375	8.75	7.625	9.25	9.75	9.00	7.50	9.00
	4.00	8.00	4.25	8.75	6.00	10.25	8.00	10.25	9.50	9.50	5.625	7.25	5.50	8.50	13.00	9.75
	5.00	7.00	4.25	8.00	9.50	9.50	8.25	10.00	7.50	6.75	7.625	10.00	9.50	11.25	7.50	10.50
	3.75	9.00	5.875	9.50	9.50	11.00	6.50	11.50	9.00	8.875	6.00	6.25	9.50	9.50	13.50	9.50
	3.50	6.25	3.375	8.00	7.50	11.00	7.50	9.00	4.375	8.00	4.625	7.00	7.50	9.75	10.50	7.75
	3.50	7.00	4.00	8.00	7.00	10.75	6.00	7.75	7.00	7.875	9.625	7.875	8.25	9.75	14.00	10.00
	7.25	9.125	4.875	9.00	7.00	8.75	6.50	11.00	3.00	8.125	8.00	8.875	5.50	8.50	13.00	8.75
	3.00	8.00	2.75	7.875	6.00	11.00	7.00	9.00	6.625	9.50	5.375	5.25	13.50	10.25	12.75	9.75
	4.25	7.125	8.75	8.75	9.00	10.00	6.00	8.00	5.375	7.25	8.00	9.25	11.00	11.25	9.00	9.25
	8.625	9.25	4.50	7.125	7.00	9.00	7.25	9.00	4.375	9.50	10.00	8.00	15.75	9.75	9.75	10.00
Totals	119.25	203.125	118.00	201.125	185.75	246.50	184.75	243.25	163.50	199.125	156.375	200.75	248.75	247.25	278.75	239.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	10.00	154.35	10.00	50.00	10.00	154.35	17.00	85.00	10.625	163.99	10.25	51.25	19.50	300.99	13.00	65.00
Lowest	2.00	30.87	5.25	26.25	4.00	61.74	7.00	35.00	2.625	40.52	4.50	22.50	4.50	69.46	6.00	30.00
Average	4.75	104.18	8.08	40.40	7.41	114.37	9.69	48.95	6.39	98.63	7.997	39.99	10.55	162.84	9.73	48.65
Tests above average	20		27		24		25		23		23		27		28	
Tests below average	29		23		[illegible]		25		27		27		23		27	

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TABLE X.—*Measurements of strain and stretch of crossbred wools produced by Baechtel Brothers, &c.*—Continued.

EWES.

Catalogue number of sample...	864.				865.				866.				867.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	11.75	7.50	6.00	5.50	5.50	8.00	7.00	7.00	11.50	8.25	5.875	7.875	10.00	9.00	8.00	8.00
	8.00	7.50	16.00	8.75	3.00	10.00	3.25	9.00	7.625	7.50	10.875	10.00	5.50	7.00	15.25	9.75
	8.00	9.50	9.00	8.75	3.00	9.00	5.75	7.00	10.625	10.00	8.375	8.75	6.75	8.00	12.125	8.00
	4.25	8.00	8.75	7.25	3.75	9.25	11.00	8.25	9.625	7.75	3.875	7.25	8.00	7.00	6.75	7.00
	8.75	6.75	8.00	8.50	5.25	9.50	4.75	8.75	7.00	5.00	8.00	6.25	11.50	8.00	9.50	7.50
	6.75	7.50	8.50	7.75	4.00	9.00	4.75	9.50	5.375	8.75	4.375	6.50	15.00	9.50	10.625	8.00
	4.75	6.00	4.00	7.75	4.125	11.00	6.00	8.50	7.25	7.25	6.00	10.00	9.375	7.25	14.375	9.125
	4.50	5.75	6.00	6.00	6.50	8.00	8.00	8.75	7.625	7.50	4.625	5.25	5.50	4.375	8.00	7.875
	14.75	9.25	10.00	9.00	5.75	8.50	4.75	8.25	7.625	10.25	12.50	6.00	5.50	7.00	6.625	7.375
	8.75	6.25	5.75	4.00	4.25	11.00	3.75	8.00	4.00	8.00	18.00	9.00	9.50	9.125	13.50	6.75
	6.00	5.25	6.50	4.75	5.50	8.00	4.00	7.75	4.375	4.00	13.50	7.75	5.50	7.75	12.00	8.00
	7.75	8.50	3.00	5.00	3.50	8.00	5.75	8.00	2.375	3.25	9.00	8.25	8.00	8.00	8.75	4.875
	4.00	6.75	8.00	7.00	3.50	0.50	8.00	7.75	12.625	8.00	15.50	9.25	3.50	7.00	4.625	4.00
	6.00	7.50	3.00	2.25	10.00	9.00	4.00	9.00	13.625	8.50	5.00	5.875	8.50	8.125	24.25	9.50
	5.50	7.25	6.00	9.00	6.00	8.75	6.00	7.00	17.00	10.25	15.50	9.25	12.75	8.125	7.375	5.125
	3.50	8.50	6.00	7.00	3.25	8.25	7.75	5.75	5.375	4.00	6.625	9.50	15.25	8.75	10.25	7.75
	3.50	4.75	6.50	4.50	3.25	7.00	5.00	6.00	6.00	7.00	7.00	7.00	6.375	7.125	10.25	6.75
	6.00	3.50	5.50	4.00	6.75	10.00	5.00	10.00	11.00	10.00	5.25	8.25	12.00	9.00	5.875	6.75
	6.50	9.00	4.00	8.00	5.50	10.00	6.00	9.50	5.00	7.25	10.375	8.50	7.50	6.875	23.00	7.625
	6.50	9.00	7.25	8.00	5.50	9.00	3.50	5.00	7.375	5.00	3.75	6.75	13.25	8.00	8.50	8.00
	6.00	5.00	4.00	7.50	3.75	9.75	8.50	5.25	9.00	9.50	15.50	9.75	6.75	8.00	12.875	8.00
	6.75	7.25	5.00	8.00	4.75	8.50	3.25	10.25	13.375	8.75	5.375	8.50	11.25	8.00	18.75	9.00
	8.00	9.00	4.00	5.00	4.00	10.00	5.50	8.75	11.00	7.25	8.625	10.50	11.375	7.25	9.50	8.25
	6.00	7.25	8.00	10.00	3.00	8.50	10.00	8.50	8.375	10.25	7.625	8.50	20.00	8.50	7.50	9.00
	4.25	7.25	3.50	2.00	4.00	9.00	6.75	9.75	4.625	7.50	9.00	9.50	11.00	5.25	10.25	7.00
Totals	166.50	174.75	154.25	161.75	117.375	223.00	145.75	201.25	209.375	191.75	219.25	202.00	240.125	186.00	276.00	145.00

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	14.75	227.66	10.00	50.00	11.00	169.78	11.00	65.00	18.00	277.82	10.50	52.50	25.25	389.72	9.50	47.50
Lowest	3.00	46.30	2.00	10.00	3.00	46.30	5.00	25.00	2.375	35.66	4.00	20.00	3.50	54.02	4.00	20.00
Average	6.41	98.94	6.73	33.65	5.26	81.18	5.48	42.40	8.67	132.27	8.22	42.10	10.32	159.29	7.36	36.80
Tests above average	32		31		23		29		20		25		20		24	
Tests below average	28		19		27		21		30		25		30		26	

RAMS.

Catalogue number of samples..	436.				818.				819.				[illegible]			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.	grams.	mm.
	35.00	7.00	18.75	7.00	9.50	8.50	4.25	7.00	3.625	7.125	5.125	8.00	6.00	6.00	3.50	8.75
	21.25	8.75	9.75	6.00	5.75	7.00	4.50	8.50	6.25	7.00	8.125	8.25	4.50	7.00	7.25	9.25
	7.00	6.50	25.00	8.00	5.00	6.50	7.50	9.00	6.25	9.00	4.25	7.125	3.75	8.00	3.75	4.00
	21.00	7.25	8.00	4.25	4.50	6.50	9.50	9.00	5.75	7.50	5.625	6.00	13.00	7.75	7.00	10.00
	29.00	6.25	19.25	8.00	3.50	7.50	4.00	8.00	7.00	7.25	6.50	8.125	6.00	8.00	5.00	9.50
	15.00	6.50	30.00	8.25	4.50	7.75	4.00	6.50	6.00	6.00	6.875	8.75	6.25	7.25	7.00	8.00
	5.00	1.50	6.75	2.75	10.50	8.00	11.25	8.75	7.625	8.00	3.50	7.00	3.00	5.00	5.50	9.00
	15.00	7.25	19.25	7.00	10.50	9.00	5.25	9.75	4.00	5.875	4.625	9.25	9.00	9.00	9.00	9.00
	30.00	7.25	25.00	8.00	6.00	6.75	3.00	6.25	8.75	7.75	4.375	8.00	7.25	8.25	5.25	5.75
	25.00	7.50	14.25	7.25	4.00	6.25	7.25	8.00	5.125	7.875	4.00	7.125	7.00	8.75	5.00	8.00
	19.00	3.00	15.25	3.75	2.75	3.75	4.75	9.00	4.00	6.75	4.50	8.125	6.25	9.00	9.25	9.50
	6.00	7.50	11.50	3.25	5.75	8.75	5.50	8.75	5.50	8.00	2.25	8.125	7.25	8.75	3.75	5.00
	34.75	8.75	12.25	6.25	4.00	9.00	3.50	8.00	5.00	7.00	7.50	5.00	9.00	7.25	8.00	7.75
	8.25	7.50	13.75	8.00	4.75	4.75	5.25	7.25	3.50	6.50	5.00	7.00	4.50	7.00	6.25	7.00
	12.50	4.50	4.75	4.75	4.00	8.00	3.75	8.00	6.375	6.00	4.50	7.25	3.75	4.75	4.00	8.00
	21.25	7.25	32.25	6.00	8.50	6.75	3.75	8.00	4.625	8.125	10.75	8.00	8.00	8.25	4.50	8.00
	11.00	8.00	16.25	4.75	4.00	7.50	5.25	6.50	8.00	7.125	8.00	8.00	9.00	7.75	4.00	7.25
	19.75	6.75	21.00	3.00	7.00	9.00	5.50	7.00	5.75	9.25	4.625	7.00	4.75	4.75	4.00	7.00
	13.50	8.25	20.00	9.00	8.75	7.25	6.75	7.50	9.125	7.875	7.375	7.875	5.25	7.00	9.00	8.50
	16.75	7.75	8.75	4.75	3.50	7.25	2.75	10.25	3.00	8.75	8.00	7.50	5.50	7.00	6.25	6.00
	14.25	9.00	14.75	4.75	5.00	8.75	2.50	7.50	4.625	9.00	7.00	8.50	4.75	8.00	6.50	7.00
	16.00	7.75	28.25	8.25	2.00	9.00	4.25	8.00	8.00	9.125	7.625	7.00	9.25	7.50	6.50	8.00
	29.75	9.25	10.50	6.00	3.75	8.00	4.00	7.75	5.25	9.00	3.50	8.00	8.00	8.00	7.00	6.50
	16.25	7.25	21.25	7.25	3.75	6.25	5.50	8.50	5.00	9.375	4.625	8.50	5.50	7.00	5.00	8.00
	24.75	7.00	15.75	7.25	4.00	8.25	4.00	7.75	4.25	9.00	9.00	8.75	4.75	7.25	7.25	8.75
Totals	477.00	165.25	420.25	153.50	175.25	188.50	130.50	191.50	140.875	186.25	148.25	188.25	153.25	184.25	146.50	192.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	35.00	540.21	9.25	46.25	11.25	173.64	10.25	51.25	10.75	165.922	9.25	46.25	13.00	200.65	10.50	52.50
Lowest	4.75	73.31	2.75	13.75	2.00	30.87	3.75	18.75	2.25	34.73	5.00	25.00	3.00	46.304	4.00	20.00
Average	17.95	277.05	6.38	31.90	5.215	80.534	7.60	38.00	5.78	89.21	7.49	37.45	6.03	93.068	7.55	37.75
Tests above average	24		20		18		25		26		26		23		27	
Tests below average	26		20		32		25		24		24		27		23	

TABLE X.—*Measurements of strain and stretch of crossbred wools produced by Baechtel Brothers, &c.*—Continued.

	RAMS.															
Catalogue number of sample...	821.				822.				823.				824.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	18.50	6.00	9.75	2.00	2.50	1.00	5.50	7.00	5.25	7.50	5.75	9.75	8.00	8.75	2.25	7.50
	20.875	7.25	15.25	7.00	7.75	6.00	5.25	7.75	6.25	8.00	9.75	7.75	3.75	7.25	3.25	9.00
	13.25	6.00	6.25	5.75	7.75	9.00	4.50	8.125	3.00	7.00	5.25	9.75	5.75	8.00	4.00	9.25
	4.25	6.00	4.50	8.00	7.25	6.00	5.25	6.00	5.25	8.75	6.00	8.00	11.00	8.00	3.25	7.00
	9.25	8.75	13.50	7.25	5.75	9.25	5.50	8.25	6.25	7.00	4.25	10.00	4.25	9.50	6.50	6.00
	21.00	7.00	5.25	8.75	7.00	3.25	4.25	5.25	9.00	8.00	4.75	9.25	5.00	9.00	5.25	9.75
	10.75	7.25	3.75	5.25	4.50	3.75	7.00	7.75	4.00	7.50	4.50	6.25	9.25	9.00	4.50	8.75
	7.00	5.50	10.25	7.875	11.50	9.00	7.25	9.875	5.50	11.00	4.00	8.25	4.50	9.75	3.25	8.25
	4.00	3.75	4.25	8.25	4.75	7.50	6.75	9.25	5.25	9.25	10.50	6.75	6.25	10.50	3.50	9.75
	4.50	5.50	20.50	8.00	5.50	8.50	8.00	9.125	3.75	12.25	4.25	6.75	8.25	5.75	16.25	9.50
	6.00	7.50	5.25	8.75	7.00	9.00	16.50	8.125	5.00	9.875	4.25	8.50	4.75	7.75	4.50	8.00
	5.50	1.00	8.00	8.125	5.25	6.75	5.50	8.25	6.00	9.75	5.25	7.75	9.00	9.00	4.75	9.75
Actual measurement in grams and millimeters.	6.625	8.00	4.25	7.75	8.00	10.75	6.25	8.875	3.50	7.75	4.25	7.00	10.50	9.50	4.25	10.00
	6.75	1.50	7.25	8.00	3.25	8.875	5.50	4.50	3.50	9.00	3.50	9.00	4.25	9.00	8.00	8.75
	5.25	4.75	7.50	5.25	4.50	6.25	6.75	10.00	4.50	8.25	3.50	8.25	3.25	6.25	2.00	7.50
	7.50	1.125	8.50	8.50	2.50	1.00	10.50	7.00	5.50	7.75	5.25	7.75	5.00	8.00	5.75	9.50
	13.75	6.25	4.50	4.875	4.00	6.50	3.50	5.25	3.75	6.00	3.75	8.50	9.50	7.75	5.50	9.00
	5.50	8.00	8.75	4.25	5.25	6.50	6.00	7.875	4.25	8.75	6.25	7.50	6.00	8.00	2.50	7.50
	14.50	8.125	5.00	7.00	2.75	5.00	4.75	5.50	5.75	8.00	5.25	8.00	10.25	8.00	4.00	8.50
	5.75	1.00	7.50	4.25	10.00	8.00	5.75	6.75	6.25	9.00	6.25	7.25	13.00	10.00	2.75	9.00
	7.75	8.25	10.50	6.50	3.75	7.50	4.75	6.00	9.25	8.25	4.50	6.50	5.25	9.75	3.875	9.00
	8.75	7.25	14.50	9.00	3.75	6.00	6.50	2.00	7.50	7.75	4.25	8.50	6.50	9.50	4.00	10.25
	9.25	6.75	10.50	4.00	6.25	9.00	7.50	7.75	5.75	9.00	10.75	9.00	3.875	8.75	2.75	9.25
	8.25	7.00	12.50	6.50	7.50	6.50	6.50	7.50	6.25	8.75	7.75	9.75	7.50	7.75	4.25	7.50
	15.00	8.00	4.50	3.875	8.25	7.25	6.50	4.00	5.00	7.75	6.75	7.00	12.25	10.50	3.00	7.50
Totals	249.50	147.50	212.25	162.75	146.25	168.125	159.00	177.75	135.25	212.875	140.50	202.75	176.875	212.50	113.875	225.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reductoin:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	21.00	324.13	9.00	45.00	11.50	177.50	10.75	53.75	10.75	165.92	12.25	61.25	16.25	247.34	10.50	52.50
Lowest	3.75	57.87	1.00	5.00	2.50	38.59	1.00	5.00	3.00	46.304	6.25	31.25	2.00	30.87	5.75	28.75
Average	9.23	142.46	6.20	31.00	6.08	93.84	6.92	34.59	95.51	85.04	8.31	41.55	5.81	89.673	8.82	44.10
Tests above average.....	19		30		23		22		19		23		17		25	
Tests below average	31		20		27		28		31		27		33		25	

	RAMS.												EWES.			
Catalogue number of samples..	825.				826.				827.				788.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	3.50	8.00	5.25	7.25	5.00	8.25	7.25	7.75	19.00	9.00	12.50	9.00	4.25	7.875	3.625	7.50
	8.25	8.00	5.00	7.50	5.50	7.25	4.50	5.50	4.375	7.00	6.50	8.00	5.375	8.75	10.00	11.00
	4.125	9.25	7.75	8.25	9.50	8.875	4.50	8.75	10.75	7.75	4.00	8.00	6.50	7.25	2.375	11.00
	5.25	7.875	7.25	8.50	4.50	8.75	3.25	8.25	3.25	7.00	7.75	9.625	7.375	7.50	10.00	7.25
	3.75	7.75	13.00	8.25	3.50	2.875	5.25	9.75	5.25	8.75	4.50	5.375	4.625	8.00	3.375	16.00
	6.25	7.00	4.25	7.25	4.25	8.00	10.75	8.00	8.625	6.00	5.375	7.50	4.25	8.25	3.375	6.75
	6.00	8.25	11.25	8.25	2.25	6.25	4.50	8.25	6.75	8.50	2.75	7.25	4.50	9.50	5.375	6.75
	9.25	6.125	4.125	4.25	6.50	7.00	4.25	9.50	7.00	7.25	3.375	8.00	4.25	9.50	4.00	10.25
	7.25	6.00	5.75	2.25	5.25	8.25	4.75	10.75	3.00	6.00	8.50	5.50	10.375	10.125	5.50	7.75
	5.50	7.50	5.75	6.25	4.50	7.25	5.50	5.50	6.75	5.875	9.75	8.00	12.625	9.00	6.375	9.50
	3.125	5.50	5.00	4.75	8.00	9.50	5.25	8.25	6.375	7.00	3.75	6.75	3.25	5.50	3.375	7.00
Actual measurement in grams . and millimeters.	4.50	5.00	6.00	7.25	5.25	10.00	3.75	8.25	5.625	7.00	6.25	4.75	4.00	9.00	5.625	7.50
	4.25	7.00	5.00	7.25	6.50	9.50	5.25	8.00	4.00	8.125	6.75	8.00	4.375	9.25	5.375	5.25
	5.25	8.00	11.50	9.25	4.00	9.50	5.50	6.00	4.00	7.75	10.00	8.25	5.00	9.75	5.625	8.25
	8.00	7.875	5.25	7.00	5.25	9.50	3.75	8.75	8.00	7.00	3.875	6.75	6.625	9.25	8.00	5.00
	2.50	2.75	5.125	9.00	4.25	8.25	5.25	6.125	5.25	7.00	7.00	9.125	6.25	7.50	3.375	7.75
	4.50	7.00	4.75	7.25	4.50	8.125	7.25	9.25	5.00	7.00	2.50	7.00	2.625	7.125	3.25	3.50
	4.25	4.50	5.00	7.00	5.50	8.50	5.25	6.75	8.00	6.125	5.50	7.125	7.625	8.25	4.50	8.75
	5.25	5.00	3.50	7.75	3.50	4.75	4.25	9.75	5.25	8.00	8.00	8.00	7.25	6.25	4.375	8.25
	5.50	6.25	3.50	5.75	3.25	7.125	3.50	8.50	4.50	6.00	8.00	7.00	6.625	10.125	3.625	8.00
	3.50	3.00	4.125	7.25	4.25	9.00	4.00	7.75	7.75	6.00	5.75	8.875	3.25	8.00	5.625	8.50
	5.25	7.50	3.75	6.125	5.25	8.00	4.00	8.00	5.375	9.00	4.25	8.25	3.00	8.75	6.75	7.75
	4.25	7.25	5.00	8.00	3.75	11.00	5.25	7.25	10.125	8.25	3.75	8.00	8.625	7.00	6.625	7.00
	3.75	7.50	4.50	6.50	5.50	7.25	4.125	9.00	7.25	7.50	6.00	6.75	2.625	7.00	7.50	6.75
	4.75	8.25	7.50	2.50	4.25	9.50	4.25	8.75	2.875	8.25	6.00	8.125	5.375	8.00	4.375	8.00
Totals	127.75	168.125	158.875	170.625	124.75	202.25	125.125	242.375	164.125	183.125	148.375	189.00	140.625	206.50	132.00	201.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	13.00	200.65	9.25	46.25	10.75	165.922	11.00	55.00	19.00	293.25	9.625	48.125	12.625	194.86	16.00	80.00
Lowest	2.50	38.58	2.25	11.25	3.25	51.62	2.875	14.375	2.50	38.59	6.00	30.00	2.375	36.66	2.50	12.50
Average	5.73	88.43	67.75	33.875	4.99	77.018	8.09	40.45	6.05	33.39	7.44	37.20	5.45	84.12	8.15	40.75
Tests above average.....	05		34		23		28		22		26		21		22	
Tests below average.....	15		16		27		22		28		24		29		28	

TABLE X.—*Measurements of strain and stretch of crossbred wools produced by Baechtel Brothers, &c.*—Continued.

EWES.

Catalogue number of sample...	789.				790.				791.				792.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	4.50	10.75	6.00	9.00	8.00	7.00	7.00	9.75	5.25	7.25	6.625	8.75	8.00	10.00	4.00	9.00
	3.25	10.00	3.75	9.00	3.25	7.00	6.25	5.25	4.375	4.00	6.625	7.00	9.00	8.50	3.50	5.25
	3.00	10.00	2.75	9.00	4.25	8.00	7.50	7.75	5.625	1.875	9.375	8.75	5.50	7.75	8.25	6.75
	3.25	9.50	2.50	8.00	7.25	6.50	4.00	11.00	6.00	7.875	6.625	8.00	1.00	8.00	6.00	9.00
	3.50	8.75	4.00	8.75	9.00	7.00	4.00	6.00	8.375	9.75	4.625	7.25	5.25	8.00	9.50	9.00
	8.50	9.75	3.00	10.00	5.50	7.00	8.50	8.00	6.00	9.25	4.875	8.25	6.75	8.00	4.25	4.75
	3.875	10.00	6.375	8.25	6.00	10.00	7.50	11.00	8.375	6.50	5.625	6.75	4.00	7.00	5.00	8.00
	3.25	10.00	3.50	9.50	3.50	8.00	5.00	6.50	9.00	8.875	5.25	8.875	3.75	5.75	7.75	9.75
	3.00	9.875	3.25	8.50	7.00	7.00	6.75	7.00	5.625	7.00	9.50	8.25	7.75	9.00	6.00	7.00
	5.375	10.125	4.00	9.25	9.00	6.50	5.25	11.25	5.875	5.25	11.00	9.25	6.00	7.50	4.75	8.25
	1.75	9.50	4.00	8.00	6.75	8.00	4.75	7.50	5.375	8.25	6.50	7.875	8.75	5.00	5.00	8.00
	3.00	7.75	4.50	6.75	5.00	9.25	5.75	6.75	6.00	7.125	5.625	9.25	7.00	1.25	4.50	3.00
	5.00	9.00	4.50	8.25	7.00	7.50	6.25	9.00	4.625	8.125	5.75	9.00	5.75	5.75	7.00	8.00
	3.75	8.75	3.25	8.00	4.00	7.00	8.00	4.00	4.375	5.75	3.00	7.00	6.00	8.00	4.75	3.50
	3.25	8.25	4.375	7.75	4.25	6.00	6.75	5.25	6.50	7.75	9.50	8.25	8.25	9.75	7.00	8.00
	4.00	8.25	3.00	6.50	5.25	8.00	4.25	5.75	5.375	7.00	5.375	8.25	13.00	9.00	7.00	8.25
	2.75	5.75	4.375	8.00	7.00	5.00	6.00	8.75	4.25	3.50	9.625	7.25	6.00	6.00	4.75	6.75
	2.75	6.25	5.50	8.25	4.75	8.50	6.75	9.25	6.50	8.50	6.75	8.25	7.75	9.50	4.75	5.75
	5.75	8.00	4.00	8.50	4.50	9.00	6.00	8.00	5.25	6.75	5.625	7.00	8.00	8.50	7.25	8.00
	6.50	7.50	6.50	10.00	3.75	9.25	4.00	8.50	6.625	8.00	5.375	8.25	4.00	6.50	5.00	5.75
	7.00	7.75	4.125	6.25	5.00	8.25	4.00	4.00	3.50	5.50	4.00	7.25	8.25	9.00	5.50	9.50
	3.50	5.50	3.00	5.75	9.00	10.00	4.00	7.50	4.375	5.125	7.625	5.25	4.00	5.75	6.00	5.25
	3.75	9.875	4.25	8.00	7.25	9.00	4.25	10.50	4.00	5.75	7.00	9.875	7.50	4.00	7.50	7.25
	2.625	8.75	5.75	9.00	6.00	7.00	7.75	7.50	9.50	9.00	4.50	7.25	6.00	9.00	7.75	6.25
	4.375	8.50	6.375	6.00	4.75	4.00	3.25	6.00	5.625	7.75	5.375	11.75	5.00	7.00	6.25	5.50
Totals	95.75	218.125	107.125	204.25	147.00	181.75	142.50	197.75	146.375	169.50	161.75	202.875	171.25	190.00	149.00	177.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	7.00	108.04	10.75	53.75	9.00	138.91	11.25	56.25	11.00	169.78	11.75	58.75	13.00	200.65	10.00	50.00
Lowest	1.75	27.01	5.50	27.50	3.25	50.16	3.00	15.00	3.00	46.304	1.875	9.375	3.50	54.02	3.00	15.00
Average	4.06	63.66	8.45	42.25	5.79	89.37	7.50	37.95	6.16	95.077	7.45	37.25	6.41	98.94	7.35	36.75
Tests above average	20		27		25		23		19		26		22		27	
Tests below average	30		23		25		27		31		24		28		23	

EWES.

Catalogue number of samples..	793.				794.				795.				796.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
Actual measurement in grams and millimeters.	9.25	8.50	6.375	6.00	6.50	8.00	4.25	7.00	3.50	5.25	5.00	4.00	2.25	9.00	3.25	10.50
	5.375	10.00	4.00	6.25	5.50	7.00	7.875	8.00	4.25	7.00	4.00	5.00	2.50	7.50	1.75	10.00
	9.25	7.75	4.625	8.00	4.00	6.00	4.375	7.875	7.00	5.25	7.00	6.50	5.50	8.50	2.50	7.75
	3.625	1.25	7.00	7.50	6.875	9.25	3.00	7.00	4.25	5.25	6.00	7.75	3.25	7.00	5.50	9.00
	8.375	9.25	17.00	9.25	5.00	6.00	5.25	6.00	7.25	10.25	4.00	3.50	7.75	9.75	2.75	9.875
	12.75	8.00	15.50	8.00	4.75	7.75	3.50	5.25	6.00	8.00	4.25	3.00	2.00	8.25	3.25	7.875
	4.75	9.00	5.375	7.25	4.25	5.125	7.25	8.00	6.00	9.00	8.50	7.50	6.50	9.25	5.625	9.75
	5.375	8.25	6.00	9.875	4.375	6.00	4.375	5.625	4.75	7.00	4.50	6.25	3.50	8.75	3.75	8.75
	5.25	8.75	5.375	8.00	8.50	8.125	4.50	7.75	2.25	2.50	4.50	6.00	4.75	8.25	3.25	6.00
	7.75	8.875	5.375	8.75	6.00	6.625	4.875	7.00	4.75	8.00	5.25	3.50	6.50	8.00	3.25	10.25
	10.625	7.50	5.625	8.50	4.00	7.00	4.375	6.00	3.50	2.50	4.50	3.25	5.75	9.75	6.50	11.00
	4.375	7.75	3.625	8.25	5.875	9.00	3.875	6.25	6.00	4.50	4.00	4.00	2.75	8.00	2.25	9.875
	4.375	5.75	8.375	7.00	3.00	5.00	4.00	5.50	2.25	6.00	6.00	5.50	4.125	7.75	5.00	10.00
	11.50	8.00	4.50	8.25	3.875	5.00	6.875	8.00	6.25	5.00	5.25	7.00	3.50	8.75	4.00	10.00
	7.00	8.00	6.375	3.50	4.25	7.00	3.125	6.00	5.00	5.00	5.00	5.25	2.25	10.00	7.00	7.75
	9.375	1.75	5.25	8.75	4.75	7.25	3.00	5.125	6.00	8.25	5.25	7.25	4.50	11.00	3.00	7.00
	8.625	3.50	4.375	7.75	4.50	7.00	4.375	5.75	3.25	5.00	3.25	6.00	3.625	10.00	3.00	7.00
	5.00	9.00	7.375	5.50	3.50	7.25	4.75	4.75	4.50	6.00	4.50	8.00	2.50	8.50	3.75	9.00
	7.75	8.75	2.375	5.50	4.00	5.875	4.00	6.50	4.00	4.75	4.50	7.50	1.00	10.00	3.75	10.00
	4.75	9.25	3.50	8.25	4.75	8.00	4.75	7.00	3.00	3.00	6.50	6.50	2.25	8.25	2.625	9.875
	5.25	7.75	5.25	8.75	5.50	6.875	4.50	5.50	4.75	8.00	3.25	5.75	3.00	9.00	6.00	7.50
	6.625	8.00	5.375	7.50	5.625	7.50	3.25	7.25	5.00	6.50	5.50	8.25	3.25	10.00	4.50	8.75
	4.00	6.00	4.38	7.25	8.625	7.25	3.25	4.50	4.25	5.00	4.00	7.00	5.00	11.00	2.25	9.00
	5.00	9.50	2.50	5.50	4.50	7.00	4.00	6.00	4.75	5.50	5.50	4.75	5.00	9.50	1.75	8.125
	6.125	9.875	4.00	8.50	3.75	7.00	3.75	7.50	4.25	7.00	4.00	6.00	5.00	9.00	5.625	9.25
Totals	172.125	190.00	155.625	183.625	125.25	173.375	111.125	159.125	117.75	150.00	123.25	146.25	98.50	223.25	93.875	223.875

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	17.00	262.40	11.50	57.50	8.625	133.125	9.25	46.25	8.50	131.19	10.25	51.25	7.75	119.62	11.00	55.00
Lowest	3.375	52.09	1.25	6.25	3.00	46.304	6.00	20.00	3.00	46.304	2.50	12.50	1.50	23.15	6.00	30.00
Average	6.56	101.25	7.47	37.35	4.73	73.01	6.65	33.25	4.82	74.30	5.93	29.65	3.99	60.04	8.94	44.72
Tests above average	18		34		26		27		21		27		20		28	
Tests below average	32		16		30		23		29		23		30		22	

TABLE X.—*Measurements of strain and stretch of crossbred wools produced by Baechtel Brothers, &c.*—Continued.

	EWES.				RAMS.				EWES.							
Catalogue number of sample...	797.				434.				433.				796.			
Actual measurement in grams and millimeters.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	7.00	9.50	3.50	8.00	2.875	7.00	6.75	4.75	19.00	8.00	10.25	6.50	9.00	4.75	5.00	10.25
	6.25	10.50	3.50	8.25	7.75	7.5	4.75	8.00	11.00	5.50	7.00	1.00	4.00	8.50	10.50	7.00
	4.75	9.75	9.50	9.00	4.00	6.00	9.75	8.375	8.25	7.50	12.75	7.50	6.00	6.75	15.25	7.50
	3.50	9.00	6.00	8.25	11.00	7.00	11.25	6.25	6.00	5.00	5.75	5.50	6.25	8.75	7.00	8.00
	4.50	5.75	7.00	11.00	10.50	7.25	11.00	8.75	8.00	9.00	7.25	4.00	11.00	9.00	4.00	8.75
	4.75	8.50	3.00	7.50	7.25	7.00	9.50	5.25	8.25	6.75	7.00	2.25	6.00	8.50	8.00	9.75
	3.75	4.75	4.50	8.75	8.75	2.00	4.25	2.50	15.25	3.75	12.50	6.25	4.75	7.50	5.75	9.00
	5.00	8.00	5.00	8.00	10.00	5.00	6.00	6.75	9.25	7.75	12.50	6.50	6.00	8.75	7.25	7.75
	4.25	7.00	6.00	8.25	9.75	7.125	8.75	5.50	6.00	1.00	9.25	3.75	10.75	8.25	5.75	8.25
	6.00	9.00	7.50	8.75	10.00	7.75	8.00	7.00	14.00	8.00	19.25	5.75	7.50	7.75	8.00	8.75
	7.25	9.50	4.75	8.00	9.50	3.00	11.25	7.75	8.00	2.25	12.00	8.00	5.00	7.00	5.00	8.75
	4.25	9.00	7.75	9.50	7.50	6.50	10.00	9.00	12.00	4.00	4.00	1.75	10.00	7.75	7.00	10.00
	7.00	9.00	4.75	5.50	8.00	6.00	3.75	7.00	10.25	3.75	10.00	3.50	5.75	9.25	3.25	6.50
	5.00	7.00	4.50	7.25	5.25	5.25	6.50	7.25	10.00	3.75	10.50	3.50	8.00	8.00	5.00	10.25
	7.25	9.00	4.50	7.00	6.25	2.75	4.00	4.00	18.75	7.50	12.75	4.25	6.00	9.00	6.00	8.00
	6.50	9.00	5.00	7.75	10.25	7.00	5.50	8.00	11.00	7.00	8.75	4.75	7.25	7.00	5.50	8.00
	6.00	8.00	6.75	9.00	7.00	6.25	9.75	7.875	10.00	2.75	7.50	4.50	7.75	6.50	16.25	9.75
	5.00	8.50	4.50	6.75	7.50	7.50	10.625	8.00	6.75	1.00	7.50	3.00	7.00	7.50	7.25	8.50
	4.25	10.00	8.75	7.00	11.00	8.00	15.00	5.75	18.25	8.75	9.75	3.75	6.00	6.00	7.25	9.75
	4.00	8.50	4.00	9.00	12.50	7.625	7.00	8.25	12.25	7.00	5.00	4.75	3.00	7.00	7.25	7.75
	5.00	8.50	5.50	9.75	8.75	7.00	10.75	8.00	7.25	5.75	11.50	3.75	6.25	8.50	13.25	9.50
	6.50	11.00	7.00	8.25	17.25	8.00	4.50	8.00	6.75	1.75	10.00	4.75	14.75	9.00	6.75	10.25
	6.00	7.00	4.00	10.00	2.125	5.00	3.00	4.00	4.00	5.25	15.00	6.75	6.00	7.00	8.75	9.50
	4.50	9.00	5.75	10.25	8.00	5.125	5.00	8.00	11.25	5.25	8.25	6.00	6.75	7.25	3.50	9.50
	7.00	8.25	8.25	5.00	14.00	9.00	6.00	7.00	11.00	5.75	14.00	7.00	7.25	7.50	4.50	6.75
Totals	135.25	218.00	141.25	207.75	216.75	157.85	191.625	171.00	262.50	133.75	250.00	119.00	178.00	192.75	182.50	217.25

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest.....	9.50	146.63	12.00	60.00	17.25	266.25	9.00	45.00	19.25	297.12	9.00	45.00	16.25	250.81	10.25	51.25
Lowest.....	3.00	46.304	3.25	16.25	2.125	32.80	2.00	10.00	4.00	61.74	1.00	5.00	3.00	46.30	4.75	23.75
Average.....	5.53	85.35	8.52	42.65	8.17	126.10	6.58	32.90	10.25	158.20	5.06	25.30	7.21	111.28	8.20	41.00
Tests above average.....	22		24		24		31		21		25		21		26	
Tests below average.....	28		26		26		19		27		25		29		24	

	EWES.															
Catalogue number of samples..	799.				800.				801.				802.			
Actual measurement in grams and millimeters.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	2.125	4.75	4.50	9.00	6.625	6.50	7.375	7.50	5.375	9.25	2.25	6.00	22.00	9.50	6.00	8.75
	4.625	3.50	11.25	9.00	7.00	6.00	8.625	9.00	6.25	8.75	5.75	8.00	14.00	10.00	5.50	8.00
	9.50	2.875	7.00	9.00	12.75	7.25	4.75	9.125	6.00	9.00	3.50	6.00	18.00	10.25	14.50	9.50
	15.50	9.25	9.625	9.00	9.375	7.25	4.375	4.625	7.875	9.875	4.25	9.00	12.50	8.50	6.75	9.50
	11.25	7.00	9.625	9.00	4.375	4.25	6.625	10.00	6.00	9.25	3.25	6.75	4.50	7.75	18.00	9.00
	10.50	7.125	6.00	8.00	9.50	8.00	9.375	9.50	4.00	10.00	9.75	10.75	15.00	9.75	10.75	9.00
	6.25	6.75	4.875	8.00	6.625	5.25	6.75	6.50	2.25	8.25	5.50	9.00	4.00	8.75	18.00	9.75
	11.625	6.00	5.375	10.125	7.375	5.50	10.625	10.50	3.25	9.50	4.75	7.50	10.00	9.25	8.50	8.75
	4.375	4.75	4.875	6.375	8.125	6.00	8.375	8.25	3.25	8.50	4.50	9.00	7.00	9.00	8.25	7.50
	7.625	9.00	5.625	8.00	12.25	7.75	7.375	10.25	3.00	7.25	4.00	8.00	12.00	8.50	14.50	6.75
	10.375	7.75	5.50	6.125	7.375	7.50	9.625	8.50	2.75	9.50	4.50	8.75	11.25	7.75	12.00	8.00
	5.00	7.00	10.50	8.75	10.625	9.00	9.75	7.75	2.00	7.75	5.75	8.00	6.25	10.50	11.00	8.00
	7.25	7.875	5.875	9.75	10.375	6.25	10.00	8.50	9.25	9.375	3.75	8.00	8.00	10.00	10.00	8.50
	14.25	9.00	4.25	7.75	6.00	5.875	9.625	9.00	5.25	9.00	2.50	7.75	14.75	8.00	13.00	9.00
	9.375	7.00	7.50	8.00	3.375	4.25	8.625	8.75	2.75	9.50	3.75	7.00	10.00	8.50	10.50	5.75
	13.50	8.875	9.75	7.50	8.625	8.00	9.00	10.00	3.25	9.75	10.00	10.75	11.00	8.25	23.75	10.00
	13.50	8.50	6.00	7.00	7.375	7.75	5.375	6.75	2.625	9.875	5.75	10.00	10.00	9.00	16.00	8.00
	9.75	9.125	7.625	9.00	5.50	8.75	8.50	10.00	5.25	7.875	4.25	7.75	17.00	9.75	11.00	9.00
	4.375	7.00	3.50	8.75	7.625	8.25	11.00	10.00	3.00	9.25	2.00	6.875	19.75	10.25	28.75	9.50
	6.125	6.75	9.50	9.00	10.375	10.50	8.625	11.00	3.00	8.75	5.00	8.75	6.75	8.00	13.00	7.75
	5.125	8.25	9.50	6.875	9.375	8.25	16.25	10.25	5.25	9.50	7.25	10.00	10.75	9.00	10.75	9.00
	3.50	8.25	10.625	9.75	7.375	9.00	7.50	9.375	3.50	10.00	3.25	8.75	5.75	7.25	27.75	11.00
	11.875	8.625	6.50	9.00	10.375	10.25	5.375	8.25	3.75	9.00	2.75	7.25	17.50	10.25	11.00	8.75
	7.125	8.25	9.625	7.75	6.25	9.00	5.75	8.75	6.25	10.00	2.50	6.25	6.25	10.00	11.00	6.00
	5.50	9.75	11.875	8.00	7.00	9.25	3.75	9.50	4.50	10.25	3.00	9.25	11.00	9.00	8.50	6.50
Totals	213.00	183.00	186.875	208.50	201.625	185.625	203.00	221.75	109.625	228.875	113.50	204.125	280.00	226.75	334.75	210.75

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest.....	15.50	239.24	10.125	50.625	16.25	250.81	10.50	52.50	10.00	154.35	10.75	53.75	28.75	443.74	11.00	55.00
Lowest.....	2.125	32.80	2.875	14.375	3.375	52.09	4.25	21.25	2.00	30.87	6.00	30.00	4.00	61.74	5.75	28.75
Average.....	7.80	120.39	7.83	39.15	8.09	124.87	8.15	40.75	4.46	68.84	8.66	43.30	12.30	189.85	8.75	43.75
Tests above average.....	23		30		25		29		22		30		10		26	
Tests below average.....	27		20		25		21		28		20		30		24	

TABLE X.—*Measurements of strain and stretch of crossbred wools produced by Buechtel Brothers, &c.*—Continued.

EWES.

Catalogue number of sample...	[illegible]		804.		805.		[illegible]		806.	
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
Actual measurement in grams and millimeters.	grams. / mm.	grams. / mm.	grams. / mm.	grams. / mm.	grams. / mm.	grams. / mm.	grams. / mm.	grams. / mm.	grams. / mm.	grams. / mm.
	16.625 / 7.50	22.50 / 7.00	4.00 / 7.25	7.00 / 8.50	5.50 / [illegible]	7.75 / 7.00	6.00 / 6.00	4.75 / 4.00
	9.50 / 7.00	9.50 / [illegible]	8.625 / 9.50	5.375 / 4.00	12.00 / [illegible]	13.00 / 5.75	4.50 / 5.00	13.00 / 7.25
	23.00 / 7.25	20.75 / 7.25	[illegible] / 4.25	[illegible] / 7.75	5.00 / 7.50	[illegible] / 6.50	3.25 / 9.50	4.00 / [illegible]
	10.25 / 6.00	21.125 / 7.25	10.25 / 7.00	7.50 / 6.125	[illegible] / [illegible]	4.00 / 8.50	11.75 / 7.25	4.75 / 6.75
	10.25 / 6.875	10.125 / 4.50	5.50 / 7.00	9.00 / 7.00	5.00 / 8.50	4.50 / 7.50	5.25 / 6.75	7.75 / [illegible]
	6.125 / 5.125	[illegible] / 6.00	12.00 / [illegible]	[illegible] / 9.00	3.00 / 3.25	13.50 / 7.00	11.00 / 7.75	5.25 / 6.75
	13.25 / 6.00	7.875 / 6.00	4.375 / 4.25	[illegible] / [illegible]	3.75 / 4.75	13.75 / 8.50	8.00 / 9.25	9.25 / 7.00
	11.50 / 7.00	17.75 / 7.875	13.00 / 9.875	5.50 / 1.00	6.75 / 3.50	6.75 / 7.50	7.75 / 5.00	10.75 / 6.25
	[illegible] / 7.625	15.00 / [illegible]	6.25 / 7.75	8.00 / 7.25	7.00 / 1.50	6.75 / [illegible]	7.00 / [illegible]	8.50 / 7.00
	9.875 / 5.25	14.75 / 7.00	6.375 / 6.25	7.75 / 4.00	9.50 / 7.75	13.75 / 7.00	11.25 / [illegible]	9.75 / 6.75
	[illegible] / 6.875	15.75 / 7.00	[illegible] / 8.25	9.375 / 8.25	[illegible] / [illegible]	7.25 / 5.75	5.50 / [illegible]	13.00 / 7.00
	10.25 / 7.00	14.25 / 7.25	11.875 / 7.00	4.375 / 7.25	6.50 / 6.00	4.00 / [illegible]	5.25 / [illegible]	6.50 / 5.75
	14.00 / 7.00	12.00 / 6.50	5.375 / 2.75	5.00 / 5.50	4.50 / 6.75	10.00 / 4.00	9.75 / 6.00	7.50 / 7.75
	20.25 / 7.00	19.00 / 7.00	9.50 / 8.75	8.625 / 7.125	9.00 / 7.00	4.25 / [illegible]	13.75 / 8.75	4.50 / 4.75
	13.25 / 6.125	19.00 / 4.875	3.625 / 7.25	5.00 / 2.00	6.25 / 7.50	14.00 / 7.00	5.50 / 6.00	4.00 / 9.50
	12.00 / 6.00	13.25 / [illegible]	4.25 / 8.75	3.625 / 6.125	9.00 / [illegible]	11.50 / 7.25	13.25 / 7.50	3.00 / 7.00
	26.375 / 8.875	22.00 / 7.875	14.375 / 8.25	3.375 / 6.125	[illegible] / 9.00	12.25 / [illegible]	7.50 / 5.00	[illegible] / 7.00
	19.75 / 7.50	19.00 / 4.25	[illegible] / 6.75	14.00 / 9.25	12.00 / [illegible]	5.75 / 5.25	4.25 / 5.00	4.00 / 7.50
	8.25 / [illegible]	12.75 / 8.00	10.25 / 7.00	[illegible] / 6.125	9.75 / 7.75	[illegible] / [illegible]	5.50 / 5.75	3.625 / 8.50
	8.375 / 7.25	10.50 / 7.25	8.375 / 9.25	14.00 / 7.00	4.00 / 3.50	7.75 / 4.00	6.50 / 7.50	5.00 / 8.50
	11.25 / [illegible]	11.75 / 6.00	5.625 / 8.25	8.625 / 1.875	10.25 / 7.75	6.75 / 7.00	5.50 / 7.75	6.75 / 6.75
	12.00 / 6.875	16.00 / 7.00	6.00 / [illegible]	4.375 / 3.00	5.00 / 3.00	7.00 / 7.25	8.75 / 8.25	4.00 / 5.00
	11.75 / 4.75	12.00 / 7.00	12.75 / 7.50	12.00 / 4.50	10.25 / 4.25	7.25 / [illegible]	6.50 / [illegible]	11.25 / 9.00
	8.60 / 6.875	10.75 / 5.50	5.25 / 6.75	10.75 / 3.25	10.00 / 3.75	9.00 / 3.50	15.25 / 7.50	7.00 / 7.25
	5.00 / 6.00	17.00 / 8.00	7.375 / [illegible]	11.375 / 4.50	10.75 / [illegible]	6.75 / 6.50	5.25 / [illegible]	6.50 / [illegible]
Totals	324.75 / 165.75	368.375 / 165.625	198.375 / 184.125	205.375 / 144.50	188.75 / 149.25	219.50 / 100.25	193.75 / 172.00	183.375 / 177.50

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	26.25	450.46	[illegible]	44.375	15.00	231.02	9.875	49.375	14.25	219.94	9.00	45.00	16.50	254.07	[illegible]	52.50
Lowest	5.00	77.17	3.00	15.00	3.375	52.00	1.00	5.00	3.00	46.30	1.50	7.50	3.00	46.30	4.00	20.00
Average	13.08	210.84	6.63	33.15	8.08	124.71	6.51	[illegible]	8.17	126.00	5.99	29.95	7.52	116.07	[illegible]	34.95
Tests above average	19		32		24		32		22		29		20		26	
Tests below average	31		18		26		18		28		21		30		24	

Catalogue number of samples..	EWES. 807.		RAMS. 848.		849.		850.	
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
Actual measurement in grams and millimeters.	grams. / mm.	grams. / mm.	grams. / mm.	grams. / mm.	grams. / mm.	grams. / mm.	grams. / mm.	grams. / mm.
	4.25 / 3.00	12.00 / 7.00	11.50 / [illegible]	14.25 / 8.875	10.50 / 10.00	12.00 / 9.00	4.50 / 7.75	4.75 / 7.25
	11.25 / 8.75	[illegible] / 3.50	[illegible] / 10.75	9.50 / [illegible]	5.25 / 8.00	11.00 / 9.75	4.00 / 10.75	[illegible] / 9.50
	6.00 / 9.00	10.00 / 9.00	13.00 / 8.50	[illegible] / 9.125	4.75 / 7.75	9.50 / 9.00	12.00 / 9.50	11.00 / [illegible]
	4.50 / [illegible]	5.00 / 5.25	16.25 / 7.00	10.25 / 9.00	9.50 / [illegible]	6.25 / [illegible]	11.50 / 9.50	[illegible] / 8.75
	4.00 / 7.00	6.75 / [illegible]	[illegible] / 6.75	12.25 / 7.25	8.75 / 10.00	11.25 / 9.25	6.50 / 10.50	6.00 / 8.25
	7.50 / 9.00	10.00 / [illegible]	21.25 / 7.875	13.75 / 7.00	6.00 / 10.25	[illegible] / [illegible]	6.50 / 9.00	[illegible] / 9.50
	8.00 / [illegible]	4.75 / 2.75	3.75 / 3.00	3.50 / 4.75	7.00 / 10.00	10.50 / 11.75	4.00 / 6.50	[illegible] / [illegible]
	5.75 / 2.75	7.00 / [illegible]	7.75 / [illegible]	21.75 / 9.75	[illegible] / 9.00	6.25 / 11.75	5.75 / 9.50	4.00 / 6.50
	10.25 / 7.50	4.75 / 2.00	2.75 / 5.50	4.25 / 5.25	[illegible] / 7.00	5.75 / 9.25	8.00 / 7.00	[illegible] / 3.50
	4.75 / 1.75	10.50 / 0.00	14.50 / 8.25	4.75 / 4.50	4.75 / [illegible]	9.50 / 9.50	5.75 / 10.00	6.75 / 8.00
	9.00 / [illegible]	10.25 / 6.25	20.75 / 9.75	13.50 / 8.875	9.00 / 10.00	7.75 / 10.25	7.00 / 9.25	5.00 / [illegible]
	[illegible] / 8.50	[illegible] / [illegible]	[illegible] / 8.75	10.50 / 7.50	0.50 / [illegible]	5.00 / 10.00	[illegible] / 8.75	[illegible] / [illegible]
	7.00 / 9.00	5.00 / 0.25	12.25 / 9.00	12.75 / [illegible]	12.00 / 9.50	3.25 / 7.00	10.50 / [illegible]	[illegible] / [illegible]
	13.50 / 9.00	6.75 / 7.00	8.25 / [illegible]	23.00 / 9.25	5.75 / 6.50	10.75 / 10.00	14.75 / 9.00	10.50 / [illegible]
	6.50 / 7.00	6.25 / 9.25	[illegible] / 8.00	11.75 / [illegible]	7.00 / 7.75	6.75 / 9.75	5.00 / 9.50	[illegible] / [illegible]
	9.75 / [illegible]	5.50 / 5.25	16.50 / [illegible]	10.50 / 8.50	6.25 / 7.00	7.75 / 9.00	9.00 / 10.00	5.50 / 5.50
	[illegible] / [illegible]	4.00 / 3.75	4.75 / 0.25	7.50 / 9.00	9.75 / [illegible]	12.50 / 9.75	4.00 / 5.50	[illegible] / [illegible]
	9.00 / 5.25	9.75 / 8.75	12.00 / 8.75	12.50 / 10.25	[illegible] / 8.75	7.25 / 10.50	[illegible] / 9.25	[illegible] / 9.50
	[illegible] / [illegible]	11.25 / [illegible]	10.25 / 7.25	[illegible] / 8.875	4.25 / [illegible]	9.25 / 9.25	5.75 / 7.50	12.00 / 9.25
	6.25 / 4.25	4.50 / 5.25	2.25 / 3.00	9.00 / [illegible]	[illegible] / 9.75	7.00 / 10.25	8.25 / [illegible]	12.00 / 7.50
	5.00 / 2.75	11.75 / 8.75	20.50 / 9.75	18.25 / [illegible]	5.00 / [illegible]	5.00 / 8.75	11.75 / 8.75	[illegible] / 7.00
	3.00 / 4.25	7.25 / 4.00	8.50 / 8.25	12.00 / 9.75	[illegible] / 7.75	3.75 / 10.00	13.00 / 7.75	10.50 / 8.25
	4.00 / 5.25	4.50 / [illegible]	5.25 / 5.00	4.00 / 9.25	4.00 / 9.75	11.75 / 10.75	9.50 / 5.75	[illegible] / 7.00
	7.75 / 9.00	[illegible] / 4.25	12.00 / 7.50	20.50 / [illegible]	6.25 / 10.00	5.50 / 7.75	4.00 / 10.25	3.75 / 6.50
	12.75 / [illegible]	4.25 / 7.00	7.00 / 4.00	[illegible] / [illegible]	7.25 / [illegible]	12.00 / 9.75	7.50 / 8.25	7.00 / 7.00
Totals	[illegible] / 166.75	181.25 / 151.25	266.00 / 167.625	257.75 / 203.50	175.25 / 219.25	206.00 / 239.50	186.50 / 215.75	176.50 / 189.25

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.	grams.	grains.	mm.	per ct.
Highest	13.50	[illegible]	9.25	41.25	23.00	354.99	10.75	[illegible]	[illegible]	192.93	11.75	[illegible]	14.75	[illegible]	10.75	53.75
Lowest	3.00	46.30	1.75	8.75	2.75	42.44	[illegible]	15.00	3.25	50.16	6.50	[illegible]	3.50	54.02	3.50	17.50
Average	7.34	113.29	[illegible]	31.80	10.70	165.15	7.82	39.10	7.62	117.61	9.17	45.85	7.26	112.05	[illegible]	40.50
Tests above average	23		27		[illegible]		33		22		30		18		28	
Tests below average	27		23		21		17		28		20		22		22	

TABLE X.—*Measurements of strain and stretch of crossbred wools produced by Baechtel Brothers, &c.*—Continued.

	RAMS.															
Catalogue number of samples..	851.				852.				853.				854.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	7.00	7.75	9.75	8.00	6.25	10.00	4.50	5.00	5.75	9.00	6.00	8.75	9.00	9.00	4.25	8.00
	10.25	6.00	9.00	5.25	10.00	6.50	4.00	5.00	4.00	8.00	4.75	8.50	7.75	10.00	5.00	7.75
	5.75	7.75	11.75	8.00	10.75	10.50	6.75	8.50	9.75	9.00	5.75	10.25	4.75	8.00	5.00	6.75
	8.75	8.00	9.75	8.125	5.50	9.00	3.75	9.75	4.25	6.00	8.50	7.00	3.75	9.00	12.00	8.25
	8.75	5.25	7.625	8.00	6.50	5.50	5.50	9.00	3.25	6.25	3.50	6.25	7.00	8.25	4.50	9.50
	12.00	6.00	7.875	8.50	5.00	7.75	8.00	11.25	6.00	8.50	3.50	5.75	7.00	8.00	4.00	7.75
	14.75	7.00	8.00	8.00	5.50	6.00	4.25	8.25	6.25	9.00	4.25	6.00	5.00	9.00	9.00	8.75
	13.00	8.00	7.00	6.125	4.00	5.75	5.75	6.00	5.00	7.00	5.50	10.00	8.00	7.75	6.25	10.00
	9.75	6.25	5.50	8.75	3.50	9.50	6.50	8.75	3.75	7.75	4.75	7.00	10.00	9.25	8.00	8.00
	12.50	6.75	20.75	8.75	3.50	10.00	7.25	11.00	3.50	8.00	3.00	5.25	4.50	6.50	8.25	8.50
	10.25	7.25	11.00	8.00	14.75	10.75	8.50	7.00	5.00	9.00	3.00	5.00	9.00	9.75	6.25	8.75
	4.875	6.75	7.50	6.00	3.50	5.25	5.00	8.50	6.00	9.50	6.00	9.00	4.25	8.00	3.25	4.00
Actual measurement in grams and millimeters.	12.375	8.00	6.875	6.25	3.50	8.00	5.00	9.25	6.00	9.00	4.00	3.75	4.00	8.00	6.00	7.50
	5.875	6.875	7.25	8.00	6.00	8.75	6.50	10.00	2.00	7.00	4.25	8.00	6.00	9.00	6.00	8.00
	7.50	7.00	9.875	8.875	8.00	5.75	11.75	8.00	7.00	8.00	3.75	7.00	4.75	8.00	4.75	8.00
	10.25	9.00	9.00	7.00	5.50	8.50	11.00	11.75	6.00	10.00	4.75	8.00	8.75	7.75	8.25	8.00
	8.625	8.75	9.875	3.125	3.75	7.50	5.25	6.50	5.00	9.00	4.00	6.00	8.00	8.00	7.00	9.25
	4.625	8.00	12.00	7.25	10.25	10.00	17.00	12.00	8.00	10.00	6.00	9.25	8.25	9.75	5.00	8.00
	15.00	8.25	10.25	9.00	9.50	9.75	8.50	8.75	6.00	9.75	7.00	9.75	9.50	8.00	10.00	9.00
	8.25	8.875	14.00	8.875	9.00	7.50	6.00	10.00	3.50	7.75	7.25	9.25	7.00	10.00	7.00	5.00
	11.75	9.00	6.00	8.00	6.50	10.75	3.75	5.25	6.25	9.75	6.00	6.75	5.50	8.00	7.75	8.00
	18.00	8.00	9.00	6.75	3.25	8.00	5.75	7.75	4.00	7.00	4.00	7.25	3.75	8.25	10.00	8.00
	9.00	8.00	10.375	8.25	11.50	9.00	7.25	9.00	9.75	11.00	4.00	7.50	7.00	9.00	5.25	6.25
	15.50	8.50	15.00	7.00	6.00	8.00	7.00	9.75	3.75	7.25	9.75	8.75	8.50	7.75	5.00	5.00
	12.00	7.75	7.25	8.00	5.75	10.00	7.00	9.50	6.25	9.75	4.00	6.50	11.00	8.75	8.00	9.00
Totals	256.50	188.75	243.25	187.875	167.25	207.50	171.50	215.50	136.00	212.25	127.25	186.50	172.00	212.75	166.25	195.00

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	20.75	320.267	9.00	45.00	17.00	262.38	12.00	60.00	9.75	150.48	10.00	50.00	12.00	185.22	10.00	50.00
Lowest	4.625	74.859	5.25	26.25	3.25	50.16	5.00	25.00	2.00	30.86	3.75	18.75	3.25	50.16	4.00	20.00
Average	9.99	154.19	7.53	37.65	6.77	104.49	8.46	42.30	5.26	81.18	7.97	39.85	6.76	140.04	8.15	40.75
Tests above average	21		32		19		29		23		28		26		22	
Tests below average	29		13		31		21		27		22		24		28	

	RAMS.												EWES.			
Catalogue number of samples...	855.				856.				857.				808.			
	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.	Strain.	Stretch.
	grams.	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	11.25	8.50	13.50	6.25	4.00	3.00	6.75	8.75	13.50	7.00	9.75	8.00	5.625	10.125	4.625	5.75
	8.50	8.75	12.50	7.875	6.00	8.75	5.75	9.25	21.25	9.25	14.25	6.875	9.375	10.125	3.75	5.25
	8.00	4.75	23.25	9.00	12.00	8.75	6.25	7.75	9.00	6.25	11.50	6.00	4.375	5.00	9.375	8.50
	8.75	5.75	6.75	5.25	6.75	8.00	13.75	8.50	6.75	7.00	8.75	6.00	6.625	7.25	6.00	8.00
	9.25	8.50	8.00	5.25	11.75	7.00	10.50	9.00	11.50	7.25	4.25	8.75	4.875	7.25	11.625	7.25
	7.75	7.75	8.25	6.75	9.00	8.00	10.25	7.00	13.875	6.75	7.50	8.25	8.75	6.25	9.00	7.75
	15.25	8.75	6.75	5.75	11.25	6.50	13.00	7.75	9.25	6.25	14.00	7.50	8.25	8.25	5.375	8.25
	26.00	9.00	11.00	6.00	7.00	8.00	15.00	7.75	12.50	8.00	8.50	6.50	5.375	4.00	4.50	4.75
	5.75	2.25	7.75	6.50	18.50	10.00	11.00	7.00	21.00	8.00	8.00	6.00	12.50	8.50	9.00	7.25
	10.50	7.75	19.00	8.00	7.25	7.75	12.75	8.75	6.00	7.00	8.00	7.25	8.625	7.25	6.75	5.75
	8.50	10.25	6.25	6.25	6.50	7.75	14.00	7.25	8.00	6.25	11.00	7.25	2.375	6.50	5.375	5.25
Actual measurement in grams and millimeters.	9.75	7.75	14.50	6.75	10.00	7.00	13.75	7.75	17.50	8.50	10.25	6.75	11.625	7.00	4.625	4.75
	6.25	5.00	16.00	7.25	6.25	7.25	14.00	6.00	11.75	6.75	11.50	6.25	4.50	3.25	10.75	8.875
	9.75	7.25	11.75	7.00	11.00	10.00	13.25	7.00	12.25	5.25	10.25	6.875	12.00	9.00	8.375	6.25
	8.75	7.75	22.50	9.25	6.75	6.50	14.00	8.00	6.25	6.00	4.00	6.75	8.625	6.00	2.50	7.25
	8.75	3.25	6.00	8.25	6.75	6.75	14.00	8.75	14.75	8.00	22.25	8.875	7.50	4.00	7.00	7.25
	10.75	5.25	8.75	4.50	9.50	6.75	7.00	7.00	13.25	6.875	21.25	8.50	2.625	5.75	13.00	5.50
	7.25	5.75	10.00	8.00	9.00	7.00	12.00	7.75	10.75	7.00	19.50	7.25	10.625	7.875	9.625	9.25
	8.75	8.50	6.00	3.75	11.00	7.00	6.00	5.75	8.50	7.25	16.25	8.00	2.50	2.25	3.25	5.00
	17.50	9.50	9.00	10.25	6.00	8.25	11.25	6.25	8.50	6.75	14.00	5.125	10.00	9.75	7.00	6.75
	10.25	7.50	16.75	10.00	5.25	7.00	11.50	6.75	9.75	4.75	14.50	9.00	7.25	3.00	6.75	8.25
	9.25	8.25	9.50	9.75	6.50	8.50	12.00	7.50	7.50	7.00	11.25	5.25	6.00	3.75	1.625	5.25
	10.00	5.75	7.25	7.50	6.00	6.00	7.75	6.00	17.50	7.50	7.25	7.50	4.75	7.25	8.625	6.00
	9.00	7.50	11.75	7.50	6.00	6.50	14.00	8.00	7.75	6.00	10.50	6.50	5.625	7.50	7.50	2.25
	10.50	7.875	6.50	7.75	8.00	7.75	12.00	7.75	7.50	5.00	19.50	8.75	5.50	3.00	11.50	8.75
Totals	256.00	178.625	279.25	180.375	208.00	185.75	271.50	189.00	286.125	171.625	297.75	179.50	175.875	159.875	177.125	165.125

	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Recapitulation and reduction:	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	26.00	401.39	10.25	51.25	18.50	285.28	10.00	50.00	22.25	343.42	9.25	46.25	13.00	200.65	10.125	50.625
Lowest	5.75	88.74	2.25	11.25	4.00	61.74	3.00	15.00	4.00	61.74	4.75	23.75	1.625	25.08	2.25	11.25
Average	10.70	165.15	7.18	35.90	9.55	147.40	7.89	39.45	11.68	172.25	7.02	35.10	7.06	108.97	6.50	32.50
Tests above average	16		30		25		17		20		11		23		26	
Tests below average.....	34		20		25		33		30		29		27		23	

TABLE X.—*Measurements of strain and stretch of crossbred wools produced by Baechtel Brothers, &c.*—Continued.

EWES.

Catalogue number of samples..	809.				810.				811.				812.				813.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*	*gms.*	*mm.*
	7.25	8.75	6.00	8.00	8.25	2.75	9.00	8.00	3.00	9.00	6.75	9.75	4.00	9.75	4.25	9.00	3.50	8.25	4.875	5.00
	4.25	8.50	6.00	8.25	14.50	4.00	3.50	7.00	8.25	7.75	4.50	5.50	2.50	7.25	3.00	9.25	4.50	9.00	9.50	8.25
	4.75	6.00	8.00	8.25	7.75	8.25	14.75	7.75	4.00	9.00	4.25	9.00	4.50	9.00	4.00	7.25	7.00	7.00	4.875	7.00
	3.00	9.75	4.75	9.25	16.25	8.25	5.75	7.00	2.75	7.50	4.75	8.50	4.00	7.00	5.50	9.00	4.00	6.875	3.50	4.00
	6.25	4.00	7.75	9.50	5.00	3.50	8.50	6.50	3.75	9.25	3.00	9.25	3.25	3.75	4.50	8.50	10.75	8.00	10.625	7.125
	6.25	8.00	3.75	4.75	13.00	6.75	6.50	7.25	3.25	8.50	5.25	8.75	3.75	8.50	3.75	5.50	5.00	6.375	9.00	7.125
	7.50	8.75	4.00	8.75	3.75	8.00	13.00	8.50	3.375	9.00	5.00	7.75	4.25	8.00	5.00	9.75	8.00	8.00	12.625	7.75
	8.25	6.00	3.75	3.00	10.25	7.75	14.75	6.125	4.50	10.75	3.875	8.00	3.75	8.50	2.75	8.00	6.625	9.00	8.00	8.00
	8.25	7.00	6.00	8.00	18.75	9.50	11.50	8.75	3.25	7.50	4.875	8.00	3.50	10.00	3.00	3.75	5.625	8.125	7.125	6.75
	3.25	7.00	6.00	5.75	8.50	7.00	14.75	8.125	3.75	9.50	3.25	8.25	2.50	7.75	4.75	10.00	8.75	8.00	11.00	7.00
	7.75	8.00	6.50	7.50	11.50	8.50	10.50	9.750	2.75	9.00	3.75	7.00	2.75	4.00	6.50	10.00	4.625	9.00	7.25	8.00
	3.50	7.00	5.00	8.50	18.25	8.75	11.25	7.25	4.00	6.00	3.75	8.875	5.00	10.25	3.00	8.00	4.625	5.50	5.25	5.125
	7.25	8.00	7.00	7.75	7.50	4.75	11.75	6.25	3.00	10.00	4.00	8.50	3.25	9.25	4.25	7.75	9.50	9.50	6.125	7.50
	9.00	10.00	4.00	8.75	20.25	10.125	6.50	6.125	2.75	10.00	4.25	8.75	3.00	9.00	4.00	7.00	7.50	7.25	4.25	7.875
	6.00	9.00	5.00	8.50	2.75	7.75	7.75	8.25	3.00	8.50	3.75	9.00	3.75	9.25	4.00	8.50	8.125	8.50	3.125	8.00
	7.00	9.00	6.50	8.25	11.50	8.75	17.25	5.50	3.50	9.00	3.50	7.00	4.00	9.00	4.00	7.25	4.375	6.50	6.875	7.00
	7.25	8.00	6.25	9.25	9.25	7.75	4.00	3.00	3.50	8.00	5.00	7.75	4.00	9.75	5.00	8.75	5.00	8.125	3.625	7.875
	4.25	5.00	3.50	9.00	7.00	9.875	16.50	8.75	4.00	8.00	3.50	7.75	4.00	7.00	4.00	9.00	13.00	8.50	9.00	8.00
	3.25	2.50	8.50	10.00	18.25	8.75	7.75	8.25	4.875	8.00	8.00	9.75	4.50	6.25	6.50	10.50	5.375	7.00	5.50	8.00
	4.00	8.50	3.00	6.00	5.625	9.00	20.25	10.00	4.25	9.50	2.75	9.00	4.25	7.00	3.75	9.75	2.375	4.75	9.25	3.25
	6.25	9.00	3.25	4.25	14.75	8.00	9.25	8.00	2.25	7.00	2.00	6.75	4.25	8.75	6.00	9.25	5.75	6.625	10.50	8.00
	5.75	7.00	5.00	9.50	10.00	8.50	7.75	7.00	5.375	10.00	4.00	8.00	3.00	8.00	3.00	7.00	13.25	8.00	5.75	6.00
	4.25	9.00	8.25	8.75	7.75	8.75	5.75	9.00	2.75	6.25	3.00	8.75	5.00	7.50	5.00	8.50	3.375	3.75	8.625	7.75
	8.00	10.25	6.25	8.50	6.75	7.75	8.00	5.75	5.50	9.00	3.00	8.75	6.25	9.25	4.00	9.50	4.75	6.00	8.25	8.00
	4.50	8.75	7.00	8.00	10.25	9.25	21.00	6.00	4.00	8.25	2.875	8.00	9.00	8.50	2.25	8.00	3.00	7.00	3.50	6.00
Totals	147.00	192.75	139.00	196.00	282.375	180.00	286.25	173.125	95.375	218.25	102.125	204.375	102.00	202.25	108.75	213.25	168.375	181.75	173.75	168.875

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	gms.	*grs.*	*mm.*	*p. ct.*	*gms.*	*grs.*	*mm.*	*p. ct.*	*gms.*	*grs*	*mm.*	*p. ct.*	*gms.*	*grs.*	*mm.*	*p. ct.*	*gms.*	*grs.*	*mm.*	*p. ct.*
Highest	9.00	198 91	10.25	51.25	26.25	405.16	10.125	56.625	8.25	127.34	10.75	59.75	9.00	138.91	10.50	52.50	13.25	204.50	9.50	47.50
Lowest	3.00	46.30	2.50	12.50	2.75	42.44	2.25	11.25	2.00	30.87	5.50	27.50	2.50	38.57	3.75	18.75	2.375	36.66	3.25	16.25
Average	5.72	88.29	7.78	38.90	11.39	176.80	7.16	35.80	3.95	60.97	8.45	42.25	4.22	65.13	8.31	41.55	6.85	105.73	7.07	35.33
Tests above average	29		34		22		30		22		29		20		29		20		27	
Tests below average	21		16		28		20		28		21		30		21		30		23	

EWES.

Catalogue number of samples..	814.				815.				816.				817.			
	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
Actual measurement in grams and millimeters.	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*	*grams.*	*mm.*
	6.625	8.75	3.625	7.25	5.00	7.00	8.00	7.25	8.125	8.00	4.375	4.00	4.75	8.75	8.25	5.00
	7.25	8.25	8.00	8.25	4.00	9.00	3.00	5.50	6.00	4.00	5.625	7.50	4.75	7.50	12.75	10.00
	7.50	7.50	7.625	10.25	4.25	6.00	3.50	8.50	6.625	7.25	7.375	9.50	5.25	3.50	6.25	6.50
	2.375	9.75	5.625	10.00	6.25	7.25	5.50	8.50	6.625	8.00	3.25	8.00	3.75	7.50	4.00	5.75
	3.00	9.00	8.50	9.25	4.75	7.00	3.25	7.75	11.625	5.00	4.50	7.00	3.25	9.75	6.25	8.75
	7.75	8.125	9.50	10.75	3.00	5.25	4.25	7.75	6.625	6.125	3.50	7.25	3.25	5.00	10.00	8.00
	4.00	7.50	2.625	7.00	2.75	6.25	4.00	5.50	8.00	7.75	6.625	7.125	8.50	8.25	6.25	9.00
	4.00	6.50	4.00	5.25	4.00	7.00	3.75	6.25	11.375	8.00	7.375	8.25	3.25	7.25	3.75	7.25
	4.00	9.00	4.00	8.875	5.50	7.75	5.75	7.50	2.625	4.75	3.75	4.75	5.50	8.50	3.75	6.25
	6.00	8.875	3.50	8.50	3.00	7.25	3.25	9.00	6.00	8.75	4.75	5.25	4.00	4.75	4.00	8.00
	10.75	9.75	4.75	8.75	5.75	5.25	4.00	8.00	2.375	5.75	2.625	4.00	5.50	7.00	3.00	6.25
	10.625	10.50	1.625	4.25	8.75	9.00	3.50	8.00	2.625	7.00	3.375	5.75	4.00	4.00	7.00	9.75
	3.625	7.00	9.00	8.00	4.25	5.75	6.25	9.25	9.625	8.25	5.625	8.25	9.50	4.00	5.25	8.50
	2.625	1.125	6.00	7.00	4.00	7.50	3.00	7.25	3.375	5.75	6.375	5.125	3.75	6.25	8.25	5.75
	4.00	9.00	3.50	7.00	5.25	9.00	4.75	4.75	8.375	8.00	4.75	7.00	5.00	8.25	3.50	8.00
	2.625	4.50	3.375	2.25	5.50	8.00	3.50	5.00	5.25	7.50	7.00	5.75	8.00	7.50	5.00	7.50
	7.00	8.75	4.375	8.00	3.75	8.00	6.25	6.50	7.375	7.50	3.25	7.00	5.75	9.00	4.75	6.25
	3.625	8.00	5.00	8.50	3.75	7.00	6.50	8.50	5.625	8.00	7.00	8.00	7.75	6.00	4.75	6.25
	2.75	9.25	4.375	7.875	3.75	7.25	3.00	7.00	3.625	7.25	4.375	7.00	3.25	3.00	4.00	8.25
	3.375	9.50	9.625	7.75	3.00	7.75	4.00	5.00	5.625	8.00	4.75	8.75	15.00	10.25	8.25	7.00
	4.375	8.00	6.50	8.50	4.00	9.00	4.50	7.50	9.25	7.75	5.375	7.75	10.00	7.00	4.50	8.00
	3.75	7.00	12.625	10.00	4.50	8.00	4.75	8.50	8.75	8.25	6.625	2.75	0.25	5.00	14.00	9.00
	3.375	5.75	3.50	8.25	6.00	8.00	6.00	8.00	6.25	10.00	2.375	2.25	3.75	6.50	5.75	9.75
	7.75	8.75	7.625	7.75	6.00	9.00	3.00	9.00	5.625	8.50	4.625	2.75	8.00	5.00	4.00	8.00
	3.375	8.75	6.625	8.00	4.00	4.25	3.00	7.00	6.375	4.00	3.125	7.75	3.50	8.50	3.50	7.00
Totals	126.125	198.875	143.50	196.25	136.75	182.50	108.25	176.75	158.75	175.625	122.375	156.50	148.25	166.00	158.75	182.75

Recapitulation and reduction:	Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.		Strain.		Stretch.	
	grams.	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*	*grams.*	*grains.*	*mm.*	*per ct.*
Highest	12.625	195.34	10.75	53.75	6.50	100.32	9.00	45.00	11.625	179.43	10.00	50.00	10.25	158.12	10.25	51.25
Lowest	1.625	28.55	1.125	5.625	2.75	42.44	4.25	21.25	2.375	36.65	2.25	11.25	3.25	50.362	3.00	15.00
Average	5.39	83.18	7.86	39.30	4.36	67.29	7.18	35.90	5.62	86.74	6.64	33.20	6.12	93.56	6.97	34.85
Tests above average	20		32		25		28		24		30		18		28	
Tests below average	30		18		39		22		26		20		32		22	

TABLE XI.—*Extreme and average measurements of fineness of crossbred wools produced by Bacchtel Brothers, Willits, Mendocino County, California.*

Catalogue number of samples.		Highest.		Lowest.		Average.	
		In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.
	THOROUGHBRED WOOLS.						
439	Yearling Merino ram	3.625	1.4271	1.25	0.4921	2.05	0.8070
437	4-year old Merino ram	3.625	1.4271	1.375	0.5413	2.016	0.7936
438	4-year old Merino ewe	3.50	1.3779	1.125	0.4429	2.051	0.8074
	CROSSBRED WOOLS.						
	⅛ *Merino*, ⅞ *Southdown.*						
426	Ram, yearling	3.00	1.1811	1.50	0.5905	2.033	0.8003
425	Ewe, yearling	2.875	1.1318	0.875	0.3447	1.897	0.7468
	Average for class	2.938	1.1566	1.188	0.4677	1.965	0.7736
	¼ *Merino*, ¾ *Southdown.*						
427	Ram	3.50	1.3779	1.125	0.4429	1.95	0.7677
428	Ewe	3.00	1.1811	1.00	0.3937	1.827	0.7192
429	....do	3.00	1.1811	1.25	0.4921	2.01	0.7913
	Average for ewe	3.00	1.1811	1.125	0.4429	1.919	0.7555
	Average for class	3.17	1.2480	1.125	0.4429	1.929	0.7594
	⅜ *Merino*, ⅝ *Southdown.*						
430	Rams	3.50	1.3779	1.375	0.5413	2.13	0.8385
828	....do	2.75	1.0826	1.00	0.3937	1.66	0.6535
829	....do	2.50	0.9842	1.00	0.3937	1.659	0.6531
830	....do	3.00	1.1811	1.00	0.3937	1.709	0.6728
831	....do	2.75	1.0826	1.00	0.3937	1.715	0.6751
832	....do	3.00	1.1811	1.125	0.4429	1.897	0.7468
833	....do	3.00	1.1811	1.25	0.4921	1.918	0.7551
834	....do	3.00	1.1811	1.00	0.3937	2.043	0.8043
835	....do	2.875	1.1318	1.25	0.4921	1.869	0.7358
836	....do	3.50	1.3779	1.375	0.5413	2.003	0.7885
837	....do	3.50	1.3779	1.125	0.4429	2.081	0.8192
838	....do	3.125	1.2303	1.125	0.4429	1.786	0.7031
839	....do	3.50	1.3779	1.00	0.3937	2.175	0.8562
840	....do	3.00	1.1811	1.00	0.3937	1.801	0.7090
841	....do	3.00	1.1811	0.875	0.3445	1.954	0.7692
842	....do	3.00	1.1811	1.25	0.4921	1.87	0.7362
843	....do	2.875	1.1318	1.125	0.4429	1.755	0.6909
844	....do	3.00	1.1811	1.125	0.4429	1.908	0.7511
845	....do	3.00	1.1811	1.25	0.4921	1.929	0.7594
846	....do	3.25	1.2795	1.00	0.3937	1.841	0.7248
847	....do	3.00	1.1811	1.25	0.4921	1.941	0.7641
	Average for rams	3.054	1.2023	1.119	0.4445	1.888	0.7433
431	Ewes	3.625	1.4271	1.50	0.5905	2.378	0.9362
435	....do	4.00	1.5748	1.50	0.5905	2.012	0.7921
868	....do	2.625	1.0334	1.25	0.4921	1.819	0.7051
869	....do	3.00	1.1811	1.125	0.4429	1.973	0.7767
870	....do	2.50	0.9842	1.00	0.3937	1.607	0.6326
871	....do	3.00	1.1811	1.25	0.4921	1.923	0.7570
872	....do	3.375	1.3287	1.00	0.3937	1.821	0.7169
873	....do	3.00	1.1811	1.375	0.5413	2.040	0.8031
874	....do	3.00	1.1811	1.00	0.3937	1.836	0.7228
875	....do	2.75	1.0826	1.25	0.4921	1.854	0.7299
876	....do	3.00	1.1811	1.375	0.5413	2.112	0.8314
877	....do	3.50	1.3779	1.375	0.5413	2.107	0.8295
	Average for ewes	3.115	1.2263	1.25	0.4921	1.957	0.7704
	Average for class	3.084	1.2141	1.185	0.4665	1.923	0.7570
	½ MERINO, ½ SOUTHDOWN.						
432	Ewes	3.625	1.4271	1.25	0.4921	2.412	0.9496
858	....do	3.625	1.4271	1.50	0.5905	2.582	1.0165
859	....do	4.00	1.5748	1.625	0.6397	2.532	0.9963
860	....do	3.00	1.1811	1.125	0.4429	2.007	0.7901
861	....do	3.75	1.4763	1.25	0.4921	2.407	0.9476
862	....do	3.50	1.3779	1.125	0.4429	2.44	0.9606
863	....do	4.375	1.7224	1.50	0.5905	2.687	1.0578
864	....do	3.875	1.5255	1.25	0.4921	2.373	0.9342
865	....do	3.00	1.1811	1.50	0.5905	1.907	0.7507
866	....do	4.125	1.6240	5.50	0.5905	2.48	0.9763
867	....do	4.00	1.5748	1.625	0.6397	2.503	0.9834
	Average for ewes	3.716	1.4629	1.386	0.5456	2.394	0.9425

Catalogue number of samples.		Highest.		Lowest.		Average.	
		In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.	In centimillimeters.	In thousandths of inch.
	THOROUGHBRED WOOLS.						
436	Shropshire ram	5.00	1.9685	1.75	0.6889	3.60	1.4015
	CROSSBRED WOOLS.						
	⅛ *Merino*, ⅞ *Shropshire*, ⅛ *Southdown.*						
818	Rams	2.75	1.0826	1.25	0.4921	1.905	0.7499
819	....do	3.125	1.2303	1.375	0.5413	2.018	0.7944
820	....do	4.00	1.5748	1.375	0.5413	2.117	0.8334
821	....do	5.00	1.9685	1.375	0.5413	2.627	1.0342
822	....do	4.25	1.6732	1.50	0.5905	2.425	0.9547
823	....do	3.50	1.3779	1.375	0.5413	2.241	0.8822
824	....do	3.50	1.3779	1.25	0.4921	2.064	0.8125
825	....do	3.00	1.1811	1.125	0.4429	2.098	0.8259
826	....do	2.75	1.0826	1.25	0.4921	1.943	0.7649
827	....do	3.50	1.3779	1.125	0.4429	1.953	0.7688
	Average for rams	3.538	1.3929	1.338	0.5267	2.139	0.8421
788	Ewes	4.125	1.6240	1.25	0.4921	2.241	0.8822
789	....do	3.60	1.1811	1.25	0.4921	2.147	0.8452
790	....do	2.50	1.3779	1.25	0.4921	2.28	0.8976
791	....do	3.50	1.3779	1.375	0.5413	2.13	0.8385
792	....do	3.25	1.2795	1.50	0.5905	2.176	0.8566
793	....do	3.50	1.3779	1.50	0.5905	2.07	0.8149
794	....do	3.00	1.1811	1.50	0.5905	2.004	0.7889
795	....do	3.00	1.1811	1.375	0.5413	2.091	0.8232
796	....do	3.00	1.1811	1.125	0.4429	1.848	0.7275
797	....do	3.00	1.1811	1.25	0.4921	2.07	0.8149
	Average for ewes	3.188	1.2551	1.338	0.5267	2.106	0.8291
	Average for class	3.363	1.3240	1.338	0.5267	2.122	0.8354
	⅜ *Merino*, ⅜ *Shropshire*, ¼ *Southdown.*						
434	Ram	4.25	1.6732	1.50	0.5905	2.40	0.9448
433	Ewe	5.00	1.9685	1.25	0.4921	2.901	1.1421
798	....do	3.25	1.2795	1.00	0.3937	1.973	0.7767
799	....do	5.875	2.3129	1.25	0.4921	2.268	0.8929
800	....do	3.50	1.3779	1.00	0.3937	2.299	0.9169
801	....do	3.25	1.2795	1.50	0.5905	2.092	0.8236
802	....do	5.25	2.0669	1.50	0.5905	3.026	1.1913
803	....do	5.25	2.0669	1.25	0.4921	2.816	1.1086
804	....do	4.00	1.5748	1.25	0.4921	2.412	0.9496
805	....do	4.125	1.6240	1.50	0.5905	2.412	0.9496
806	....do	4.00	1.5748	1.50	0.5905	2.54	0.9999
	Average for ewe	4.35	1.7125	1.30	0.5118	2.474	0.9740
	Average for class	4.30	1.6929	1.40	0.5511	2.261	0.9801
	⅜ *Merino*, ⅜ *Shropshire*, ¼ *Southdown.*						
848	Rams	4.50	1.7716	1.625	0.6397	2.833	1.1153
849	....do	3.25	1.2795	1.375	0.5413	2.253	0.8870
850	....do	4.00	1.5748	1.375	0.5413	2.39	0.9409
851	....do	4.00	1.5748	1.375	0.5413	2.52	0.9929
852	....do	4.00	1.5748	1.375	0.5413	2.622	1.0322
853	....do	4.00	1.5748	1.375	0.5413	2.295	0.9035
854	....do	3.75	1.4715	1.50	0.5905	2.24	0.8818
855	....do	5.00	1.9685	1.875	0.7380	3.117	1.2271
856	....do	4.75	1.8700	1.625	0.6397	3.039	1.1964
857	....do	5.00	1.9685	1.50	0.5905	2.766	1.0889
	Average for rams	4.023	1.5838	1.50	0.5905	2.608	1.0267
808	Ewes	3.75	1.4763	1.25	0.4921	2.414	0.9503
809	....do	4.375	1.7224	1.00	0.3937	1.956	0.7700
810	....do	4.875	1.9192	1.375	0.5413	2.889	1.1373
811	....do	2.875	1.1318	1.00	0.3937	1.832	0.7212
812	....do	3.50	1.3779	1.00	0.3937	1.912	0.7527
813	....do	3.75	1.4763	1.00	0.3937	2.05	0.8070
814	....do	4.00	1.5748	1.00	0.3937	1.794	0.7062
815	....do	4.00	1.5748	1.00	0.3937	2.026	0.7976
816	....do	3.25	1.2795	1.125	0.4429	1.954	0.7692
817	....do	4.00	1.5748	1.00	0.3937	2.264	0.8913
	Average for ewes	3.838	1.5110	1.075	0.4232	2.109	0.8303
	Average for class	4.032	1.5873	1.288	0.5070	2.358	0.9283

TABLE XII.—*Extreme and average measurements of strain and stretch of crossbred wools produced by Baechtel Brothers, Willits, Mendocino County, California.*

Catalogue No. of samples.		STRAIN.						STRETCH.					
		Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
	THOROUGHBRED WOOLS.	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per ct.*	*mm.*	*per ct.*	*mm.*	*per ct.*
433	Yearling Merino, ram	14.62	225.68	3.00	46.30	6.31	97.39	9.75	48.75	3.75	18.75	7.15	35.75
437	4 year old Merino, ram	8.00	123.48	2.25	34.75	4.53	69.92	8.875	44.375	4.00	20.00	7.11	35.55
438	5 year old Merino, ewe	9.09	140.31	1.625	25.78	4.00	61.74	9.75	48.75	1.50	7.50	4.29	21.45
	CLOSSBRED WOOLS.												
	½ *Merino*, ½ *Southdown.*												
426	Ram, yearling	12.00	185.22	2.00	30.87	6.15	94.92	8.50	42.50	2.75	13.75	6.12	30.60
427	Ewe, yearling	7.50	115.76	2.75	42.45	4.95	76.40	9.00	45.00	3.75	18.75	7.28	36.40
	Average for class	9.75	150.49	2.375	36.66	5.55	85.66	8.75	43.75	3.25	16.25	6.70	33.50
	⅜ *Merino*, ⅝ *Southdown.*												
427	Ram	14.625	225.73	2.50	38.59	5.85	90.29	9.25	46.25	1.00	5.00	5.61	28.05
428	Ewe	12.50	192.93	2.50	38.59	6.66	102.80	9.25	46.25	1.25	6.25	5.75	28.75
429	...do	9.75	150.59	2.75	42.44	5.47	84.43	8.875	44.375	1.00	5.00	6.15	30.75
	Average for ewes	11.125	171.71	2.625	40.52	6.07	93.69	9.063	45.315	1.125	56.25	5.95	29.75
	Average for class	12.875	198.72	2.563	39.56	5.960	91.96	9.781	45.89	1.063	0.531	5.78	28.90
	⅜ *Merino*, ⅝ *Southdown.*												
430	Rams	10.375	160.13	2.625	40.52	5.70	87.98	9.25	46.25	3.00	15.00	6.75	33.80
828	...do	8.50	131.19	1.00	15.44	2.40	37.04	10.75	53.75	1.50	7.50	7.89	39.45
829	...do	9.75	150.49	2.75	42.44	4.65	71.77	11.75	58.75	2.00	10.00	8.03	40.15
830	...do	10.50	162.06	2.75	42.44	5.55	85.66	12.00	60.00	6.00	30.00	9.42	47.10
831	...do	7.25	111.90	2.75	42.44	4.63	71.46	11.00	55.00	6.25	31.25	8.52	42.60
832	...do	11.25	173.64	2.25	34.73	4.26	65.75	10.00	50.00	1.75	8.75	7.54	37.70
833	...do	11.00	169.78	2.625	40.52	5.55	85.66	8.75	43.75	4.00	20.00	6.90	34.50
834	...do	11.50	177.50	2.25	34.73	5.96	93.14	10.75	53.75	3.50	17.50	7.99	39.95
835	...do	13.60	209.26	3.25	50.16	7.10	109.59	9.75	48.75	3.25	16.25	7.00	35.45
836	...do	9.00	138.91	2.00	30.87	4.78	73.77	8.75	43.75	2.75	12.75	6.83	31.66
837	...do	13.60	209.65	3.50	54.04	7.00	108.04	11.50	57.50	2.00	10.00	6.38	31.90
838	...do	8.75	135.05	2.50	38.59	4.70	72.54	10.00	50.00	0.00	50.00	8.33	41.65
839	...do	14.25	219.94	5.00	77.17	8.50	131.19	11.00	55.00	2.00	10.00	8.08	40.40
840	...do	9.50	146.63	2.00	30.87	4.66	71.93	9.50	47.50	2.75	13.75	7.34	36.50
841	...do	8.25	127.33	2.50	38.59	4.66	71.93	10.50	52.50	1.125	5.625	7.08	35.40
842	...do	11.00	169.78	3.25	50.16	5.13	79.179	11.50	57.50	4.00	20.00	8.07	40.35
843	...do	7.00	108.042	1.75	27.01	3.77	58.188	11.50	57.50	4.00	20.00	8.63	43.15
844	...do	10.50	162.063	2.50	38.586	5.26	81.186	9.75	48.75	6.00	30.00	8.03	40.15
845	...do	11.00	169.78	3.00	46.304	5.40	83.35	13.00	65.00	6.00	30.00	9.42	47.10
846	...do	9.50	146.63	1.75	27.01	4.82	74.394	11.50	57.50	4.25	21.25	9.025	45.125
847	...do	8.25	127.334	2.75	42.444	4.70	72.542	11.50	57.50	6.00	30.00	9.23	46.65
	Average for rams	10.435	161.06	2.607	40.24	5.199	80.24	10.67	53.35	3.72	18.60	7.913	39.565
431	Ewes	17.75	273.961	3.75	57.88	7.60	117.30	10.00	50.00	1.25	6.25	6.41	32.05
435	...do	9.625	148.55	2.50	38.59	5.22	80.57	10.75	53.75	1.75	8.75	7.13	35.65
868	...do	6.00	92.61	2.50	38.59	3.93	60.66	11.75	58.75	6.00	30.00	9.10	45.50
869	...do	10.75	165.93	2.25	34.73	5.40	83.35	11.00	55.00	4.75	23.75	8.38	41.90
870	...do	7.50	115.76	1.50	23.15	3.42	52.79	10.75	53.75	2.875	14.375	7.68	38.40
871	...do	10.25	158.20	2.00	30.87	5.52	77.99	11.25	56.25	3.25	16.25	8.85	44.25
872	...do	8.00	123.477	2.25	34.727	4.11	69.31	9.75	48.75	4.50	22.50	8.18	40.90
873	...do	7.75	119.62	2.00	30.87	4.59	70.85	10.00	50.00	5.75	28.75	8.19	40.95
874	...do	8.00	123.47	2.00	30.87	3.93	60.503	11.25	56.25	3.00	15.00	8.58	42.90
875	...do	9.00	139.91	2.25	34.73	4.50	70.99	11.25	56.25	3.25	16.25	8.68	43.40
876	...do	11.75	181.36	3.00	46.30	6.76	104.34	10.25	51.25	6.00	30.00	8.45	42.25
877	...do	7.50	115.78	2.25	34.73	4.75	63.61	13.25	66.25	7.25	36.25	9.46	47.30
	Average for ewes	9.49	146.47	2.35	36.27	4.97	76.71	10.94	54.70	4.135	20.675	8.26	41.30
	Average for class	9.902	153.76	2.481	38.29	5.088	78.53	10.802	54.01	3.928	19.64	8.087	40.435
	½ *Merino*, ½ *Southdown.*												
432	Ewes	12.75	196.79	3.125	48.93	6.44	99.40	8.50	42.50	0.75	3.75	5.68	28.40
858	...do	15.00	231.52	6.00	92.61	10.45	161.29	13.00	65.00	7.25	36.25	9.63	48.15
859	...do	13.60	209.26	2.50	38.59	7.13	110.05	11.50	57.50	6.00	30.00	8.52	42.60
860	...do	10.00	154.35	2.00	30.87	4.75	104.18	10.00	50.00	5.25	26.25	8.08	40.40
861	...do	10.00	154.35	4.00	61.74	7.41	114.37	17.00	85.00	7.00	35.00	9.69	48.95
862	...do	10.625	163.99	2.625	40.52	6.39	98.63	10.25	51.25	4.50	22.50	7.997	39.99
863	...do	19.50	300.99	4.50	69.46	10.55	162.84	13.00	65.00	6.00	30.00	9.73	48.65
864	...do	14.75	227.66	3.00	46.30	6.41	98.94	10.00	50.00	2.60	13.00	8.73	43.65
865	...do	11.00	169.78	3.00	46.30	5.26	81.18	13.00	65.00	5.00	25.00	8.48	42.40
866	...do	18.00	277.82	2.375	35.66	8.57	132.27	10.50	52.50	4.00	20.00	8.22	42.10
867	...do	25.25	389.72	3.50	54.02	10.32	159.29	9.50	47.50	4.00	20.00	7.36	36.80
	Average for ewes	15.08	232.75	3.33	51.40	7.61	117.47	11.48	57.40	4.70	23.50	8.192	40.46
	THOROUGHBRED WOOLS.												
436	Shropshire rams	35.00	540.21	4.75	73.31	17.93	277.05	9.25	46.25	2.75	13.75	6.38	31.90
	⅛ *Merino*, ⅛ *Shropshire*, ¾ *Southdown.*												
818	Rams	11.23	173.64	2.00	30.87	5.315	82.034	10.23	51.25	3.75	18.75	7.60	38.00
819	...do	10.75	165.922	2.25	34.73	5.78	89.21	9.25	46.25	5.00	25.00	7.49	37.45
820	...do	13.00	200.65	3.00	46.304	6.03	93.068	10.50	52.50	4.00	20.00	7.55	37.75
821	...do	21.00	324.13	3.75	57.87	9.23	142.46	9.00	45.00	1.00	5.00	6.20	31.00
822	...do	11.50	177.50	2.50	38.59	6.08	93.84	10.75	53.75	1.00	5.00	6.92	34.59
823	...do	10.75	165.92	3.00	46.304	5.51	85.04	12.25	61.25	6.25	31.25	8.31	41.53
824	...do	16.25	247.34	2.00	30.87	5.81	89.673	10.53	52.50	5.75	28.75	8.82	44.10
825	...do	13.00	200.65	2.50	38.58	5.73	88.43	9.25	46.25	2.25	11.25	6.775	33.875
826	...do	10.75	165.922	3.25	51.02	4.99	77.018	11.00	55.00	2.875	14.375	8.09	40.45
827	...do	19.00	293.25	2.50	38.59	6.05	93.38	9.625	48.125	6.00	30.00	7.44	37.20
	Average for rams	13.73	211.91	2.08	41.36	6.053	93.43	10.238	51.19	3.788	18.94	7.52	37.60

TABLE XII.—*Extreme and average measurements of strain and stretch of crossbred wools, &c.*—Continued.

Catalogue No. of samples.		STRAIN.						STRETCH.					
		Highest.		Lowest.		Average.		Highest.		Lowest.		Average.	
	THOROUGHBRED WOOLS—continued.												
	⅛ Merino, ⅛ Shropshire, ¾ Southdown—Continued.	*grams.*	*grains.*	*grams.*	*grains.*	*grams.*	*grains.*	*mm.*	*per ct.*	*mm.*	*per ct.*	*mm.*	*per ct.*
788	Ewes	12.625	194.86	2.375	36.66	5.45	84.12	16.00	80.00	2.50	12.50	8.15	40.75
789	....do	7.00	104.04	1.75	27.01	4.06	63.66	10.75	53.75	5.50	27.50	8.45	42.25
790	....do	9.00	138.91	3.25	50.16	5.79	89.37	11.25	56.25	3.00	15.00	7.59	37.95
791	....do	11.00	169.78	3.00	46.304	6.16	95.077	11.75	58.75	1.875	9.375	7.45	37.25
792	....do	13.00	200.65	3.50	54.02	6.41	98.94	10.00	50.00	3.00	15.00	7.35	36.75
793	....do	17.00	262.39	3.375	52.09	6.56	101.25	10.00	50.00	1.25	6.25	7.47	37.35
794	....do	8.625	133.125	3.00	46.304	4.73	73.01	9.25	46.25	4.00	20.00	6.65	33.25
795	....do	8.50	131.19	3.00	46.304	4.82	74.39	10.25	51.25	2.50	12.50	5.93	29.65
796	....do	7.75	119.62	1.50	23.15	3.89	60.04	11.00	55.00	6.00	30.00	8.94	44.70
797	....do	9.50	146.63	3.00	46.304	5.53	85.35	12.00	60.00	3.25	16.25	8.52	42.65
	Average for ewes	10.40	160.50	2.78	42.91	5.34	82.42	11.23	56.15	3.288	16.44	7.65	38.25
	Average for class	12.063	186.19	2.73	42.14	5.70	87.98	10.73	53.65	3.54	17.70	7.585	37.92
	¼ Merino, ¼ Shropshire, ½ Southdown.												
434	Ram	17.25	266.25	2.125	32.80	8.17	126.10	9.00	45.00	2.00	10.00	6.58	32.90
435	Ewes	19.25	297.12	4.00	61.74	10.25	158.20	9.00	45.00	1.00	5.00	5.66	25.30
798	....do	16.25	250.81	3.00	46.30	7.21	111.28	10.25	51.25	4.75	23.75	8.20	41.00
799	....do	15.50	239.24	2.125	32.80	7.80	120.39	10.125	50.625	2.875	14.375	7.83	39.15
800	....do	16.25	250.81	3.375	52.09	8.09	124.87	10.50	52.50	4.25	21.25	8.15	40.75
801	....do	10.00	154.35	2.00	30.87	4.46	68.84	10.75	53.75	6.90	30.00	8.66	43.30
802	....do	28.75	443.74	4.00	61.74	12.30	189.85	11.00	55.00	5.75	28.75	8.75	43.75
803	....do	29.25	451.46	5.00	77.17	13.66	210.84	8.875	44.375	3.00	15.00	6.63	33.15
804	....do	15.00	231.02	3.375	52.09	8.08	124.71	9.875	49.375	1.00	5.00	6.51	32.85
805	....do	14.25	219.94	3.00	46.30	8.17	126.00	9.00	45.00	1.50	7.50	5.99	29.95
806	....do	16.50	254.67	3.00	46.30	7.52	116.07	10.50	52.50	4.00	20.00	6.99	34.95
807	....do	13.50	208.37	3.00	46.30	7.34	113.29	9.25	41.25	1.75	8.75	6.36	31.80
	Average for ewes	17.68	272.88	3.26	50.32	8.63	133.20	9.92	49.60	3.26	16.30	7.19	35.95
	Average for class	17.47	269.64	2.69	41.42	8.398	129.62	9.46	47.30	2.63	13.15	6.89	34.45
	¼ Merino, ¼ Shropshire, ½ Southdown.												
848	Rams	23.00	354.99	2.75	42.44	10.70	165.15	10.75	53.75	3.00	15.00	7.82	39.10
849	....do	12.50	192.93	3.25	50.16	7.62	117.61	11.75	58.75	6.50	32.50	9.17	45.85
850	....do	14.75	228.63	3.50	54.02	7.62	112.05	10.75	53.75	3.50	17.50	8.10	40.50
851	....do	20.75	320.267	4.625	74.859	9.99	154.19	9.00	45.00	5.25	26.25	7.53	37.65
852	....do	17.00	262.38	3.25	50.16	6.77	104.49	12.00	60.00	5.00	25.00	8.46	42.30
853	....do	9.75	150.48	2.00	30.86	5.26	81.18	10.00	50.00	3.75	18.75	7.97	39.85
854	....do	12.00	185.22	3.25	50.16	6.76	140.04	10.00	50.00	4.00	20.00	8.15	40.75
855	....do	26.00	401.30	5.75	88.74	10.70	165.15	10.25	51.25	2.25	11.25	7.18	35.90
856	....do	18.50	285.28	4.00	61.74	9.55	147.40	10.00	50.00	3.00	15.00	7.89	39.45
857	....do	22.25	343.42	4.00	61.74	11.68	172.25	9.25	46.25	4.75	23.75	7.02	35.10
	Average for rams	17.65	272.42	3.638	56.15	8.63	133.20	10.375	51.875	4.10	20.50	7.93	39.65
808	Ewes	13.00	200.65	1.625	25.08	7.06	108.97	10.125	50.625	2.25	11.25	6.50	32.50
809	....do	9.00	138.91	3.00	46.30	5.72	88.29	10.25	51.25	2.50	12.50	7.78	38.90
810	....do	26.25	405.16	2.75	42.44	11.39	176.80	10.125	50.625	2.25	11.25	7.16	35.80
811	....do	8.25	127.34	2.00	30.87	3.95	60.97	10.75	53.75	5.50	27.50	8.45	42.25
812	....do	9.00	138.91	2.50	38.57	4.22	65.13	10.50	52.50	3.75	18.75	8.31	41.55
813	....do	13.25	204.50	2.375	36.66	6.85	105.73	9.50	47.50	3.25	16.25	7.07	35.35
814	....do	12.625	195.34	1.625	28.55	5.39	83.18	10.75	53.75	1.125	5.625	7.86	39.30
815	....do	6.50	100.32	2.75	42.44	4.36	67.29	9.00	45.00	4.25	21.25	7.18	39.90
816	....do	11.625	179.43	2.375	36.65	5.62	86.74	10.00	50.00	2.25	11.25	6.64	33.20
817	....do	16.25	258.12	3.25	50.262	6.12	93.56	10.25	51.25	3.00	15.00	6.97	34.85
	Average for ewes	12.58	194.17	2.43	37.51	6.07	93.69	10.125	50.625	3.013	15.065	7.392	36.96
	Average for class	15.112	233.25	3.031	46.78	7.35	113.44	10.25	51.25	3.56	17.80	7.66	38.30

TABLE XIII.—*General results of all measurements of crossbred wools produced by Baechtel Brothers, Willits, Mendocino County, California.*

Catalogue No. of samples.		Fineness.		Strain.		Stretch.		$\frac{D^2 \times S}{D^3}$	$18109 \frac{S}{D^3 - R}$	$E = \frac{R}{P}$
		Centimillimeters.	Thousandths of inch.	Grams.	Grains.	Millimeters.	Per cent.			
	THOROUGHBRED WOOLS.									
								grams.		
439	Yearling Merino ram	2.05	0.8070	6.31	97.39	7.15	35.75	24.024	27,186	76,045
437	4-year-old Merino ram	2.016	0.7936	5.73	69.92	7.11	35.55	17.825	25,405	71,459
438	4-year-old Merino ewe	2.051	0.8074	4.00	61.74	4.29	21.45	15.249	17,260	80,467
	CROSSBRED WOOLS.									
	¼ *Merino*, ¾ *Southdown.*									
426	Ram, yearling	2.033	0.8003	6.15	94.93	6.12	30.60	23.886	26,948	88,067
425	Ewe, yearling	1.897	0.7468	4.95	76.40	7.28	36.40	22.149	25,069	68,873
	Average for class	1.965	0.7736	5.55	86.66	6.70	33.50	22.999	26,052	77,706
	⅛ *Merino*, ⅞ *Southdown.*									
427	Ram	1.95	0.7677	5.85	90.29	5.61	28.05	24.615	27,865	99,341
428	Ewe	1.827	0.7192	6.66	102.80	5.75	28.75	31.924	36,127	125,960
429	Ewe	2.01	0.7913	5.47	84.43	6.15	30.75	21.663	24,515	79,724
	Average for ewes	1.919	0.7555	6.07	93.69	5.95	29.75	26.988	29,852	100,343
	Average for class	1.929	0.7594	5.958	91.96	5.78	28.90	25.618	28,997	100,335
	¼ *Merino*, ¾ *Southdown.*									
430	Rams	2.13	0.8385	5.70	87.98	6.76	33.80	20.102	22,749	67,306
828	....do	1.659	0.6535	2.40	37.04	7.80	39.45	13.935	15,787	39,994
829	....do	1.659	0.6531	4.65	71.77	8.03	40.15	27.032	30,593	76,196
830	....do	1.709	0.6728	5.55	85.66	9.42	47.10	30.404	34,407	73,057
831	....do	1.715	0.6751	4.63	71.46	8.52	42.60	25.773	29,163	66,908
832	....do	1.897	0.7468	4.26	65.75	7.54	37.70	18.969	21,437	56,861
833	....do	1.918	0.7551	5.55	85.66	6.90	34.50	24.139	27,322	79,194
834	....do	2.042	0.8043	5.90	93.14	7.99	39.95	23.924	27,073	67,767
835	....do	1.869	0.7358	7.10	109.59	7.09	35.45	34.054	38,538	108,711
836	....do	2.003	0.7885	4.78	73.77	6.42	31.60	19.083	21,081	68,137
837	....do	2.081	0.8192	7.00	108.04	6.38	31.90	25.863	29,268	91,751
838	....do	1.786	0.7031	4.70	72.54	8.33	41.65	23.569	26,676	64,050
839	....do	2.175	0.8562	8.50	131.19	8.08	40.40	28.749	32,545	80,544
840	....do	1.801	0.7090	4.66	71.94	7.34	36.70	22.087	25,428	69,666
841	....do	1.954	0.7692	4.66	71.93	7.08	35.40	19.928	21,104	62,441
842	....do	1.87	0.7362	5.13	79.179	8.07	40.35	23.472	25,959	61,334
843	....do	1.755	0.6909	3.77	58.188	8.63	43.15	19.692	20,922	46,400
844	....do	1.908	0.7511	5.26	81.186	8.03	40.15	24.208	27,401	68,247
845	....do	1.929	0.7594	5.40	83.35	9.42	47.10	23.719	26,281	55,797
846	....do	1.841	0.7248	4.82	74.394	9.025	45.125	22.680	26,069	56,870
847	....do	1.941	0.7641	4.70	72.542	9.33	46.65	20.425	22,596	48,438
	Average for rams	1.888	0.7433	5.109	80.24	7.913	39.565	23.337	26,417	66,777
431	Ewes	2.378	0.9362	7.60	117.30	6.41	32.05	21.534	24,334	75,925
435	....do	2.012	0.7921	5.22	80.57	7.13	35.65	20.626	23,361	65,527
868	....do	1.819	0.7051	3.93	60.66	9.16	45.80	19.194	21,629	47,225
869	....do	1.973	0.7767	5.40	83.35	8.36	41.80	22.145	25,069	59,975
870	....do	1.607	0.6326	3.42	52.79	7.68	38.40	21.189	23,983	62,456
871	....do	1.923	0.7570	5.52	77.99	8.85	44.25	23.884	27,028	61,079
872	....do	1.821	0.7169	4.11	63.31	8.18	40.90	19.830	22,444	54,875
873	....do	2.040	0.8031	4.59	70.85	8.19	40.95	17.647	19,978	48,783
874	....do	1.836	0.7228	3.93	60.503	8.58	42.90	19.289	21,114	49,218
875	....do	1.854	0.7299	4.50	70.09	8.68	43.40	20.940	23,711	54,635
876	....do	2.112	0.8314	6.76	104.34	8.45	42.25	24.248	27,446	64,962
877	....do	2.107	0.8295	4.75	63.61	9.46	47.30	17.119	19,376	40,985
	Average for ewes	1.957	0.7704	4.97	76.71	8.26	41.30	20.763	23,442	56,491
	Average for class	1.923	0.9570	5.088	78.53	8.087	40.435	22.014	24,911	61,600
	½ *Merino*, ½ *Southdown.*									
432	Ewes	2.412	0.9496	6.44	99.40	5.68	28.40	17.726	20,067	70,658
858	....do	2.582	1.0165	10.45	161.29	9.63	48.15	25.970	28,374	58,929
859	....do	2.532	0.9968	7.13	110.05	8.52	42.60	17.794	20,145	47,265
860	....do	2.007	0.7901	4.75	104.18	8.68	40.40	19.668	21,357	52,864
861	....do	2.407	0.9476	7.41	114.37	9.60	48.45	20.464	23,157	47,785
862	....do	2.44	0.9606	6.39	98.63	7.967	39.99	17.173	24,165	61,177
863	....do	2.687	1.0578	10.55	162.84	9.73	48.65	23.379	26,462	54,592
864	....do	2.373	0.9342	6.41	98.94	6.73	33.65	18.213	20,610	61,249
865	....do	1.907	0.7507	5.26	81.18	8.48	42.40	24.233	27,424	64,678
866	....do	2.48	0.9763	8.57	132.27	8.22	41.10	22.295	25,259	50,951
867	....do	2.503	0.9834	10.32	159.29	7.36	36.80	26.969	31,082	84,685
	Average for ewes	2.394	0.9425	7.61	117.47	8.192	40.960	21.245	24,051	58,718
	THOROUGHBRED WOOL.									
436	Shropshire ram	3.60	1.4015	17.95	277.05	6.33	31.90	21.16	23,938	39,666

TABLE XIII.—*General results of all measurements of crossbred wools, &c.*—Continued.

Catalogue No. of samples.		Fineness.		Strain.		Stretch.		$\frac{D'^2 \times S}{D_2}$	$18109\frac{S}{D_2^2}=R$	$E=\frac{R}{P}$
		Centimillimeters.	Thousandths of inch.	Grains.	Grams.	Millimeters.	Per cent.			
	CROSSBRED WOOLS.									
	¼ Merino, ¼ Shropshire, ½ Southdown.							*grams.*		
818	Rams	1.905	0.7499	5.315	82.034	7.60	38.00	23.379	26,462	69,636
819	....do	2.018	0.7944	5.78	89.21	7.49	37.45	27.709	31,363	83,745
820	....do	2.117	0.8334	6.03	93.068	7.55	37.75	21.527	24,368	64,550
821	....do	2.627	1.0342	9.23	142.46	6.20	31.00	21.399	24,219	78,131
822	....do	2.425	0.9547	6.08	93.84	6.92	34.59	16.543	18,716	54,108
823	....do	2.241	0.8822	5.51	85.04	8.31	41.55	17.554	19,863	47,806
824	....do	2.064	0.8125	5.81	89.673	8.82	44.10	21.821	24,696	56,000
825	....do	2.098	0.8259	5.73	88.43	6.775	33.875	20.829	24,707	72,926
826	....do	1.943	0.7649	4.99	77.018	8.09	40.45	21.148	23,938	59,178
827	....do	1.953	0.7688	6.05	93.38	7.44	37.20	25.379	28,725	77,218
	Average for rams	2.139	0.8421	6.053	93.43	7.52	37.60	21.166	23,960	63,724
788	Ewes	2.241	0.8822	5.45	84.12	8.15	40.75	17.363	19,648	48,216
789	....do	2.147	0.8452	4.06	63.66	8.45	42.25	14.420	16,320	38,540
790	....do	2.28	0.8976	5.79	89.37	7.59	37.95	17.821	20,168	54,258
791	....do	2.13	0.8385	6.16	95.077	7.45	37.25	21.724	24,583	65,994
792	....do	2.176	0.8566	6.41	98.94	7.35	36.75	21.060	24,515	66,708
793	....do	2.07	0.8149	6.56	101.25	7.47	37.35	19.457	22,538	60,343
794	....do	2.004	0.7889	4.73	73.01	6.65	33.25	18.845	21,334	64,164
795	....do	2.091	0.8232	4.82	74.39	5.93	29.65	17.638	19,965	67,337
796	....do	1.848	0.7275	3.89	60.04	8.94	44.70	18.225	20,667	46,235
797	....do	2.07	0.8149	5.53	85.35	8.52	42.65	20.649	23,372	54,799
	Average for ewes	2.106	0.8291	5.34	82.42	7.65	38.25	19.264	21,798	57,486
	Average for class	2.122	0.8354	5.70	87.98	7.585	37.92	20.254	22,919	60,441
	⅜ Merino, ⅜ Shropshire, ¼ Southdown.									
434	Ram	2.40	0.9448	8.17	126.10	6.58	32.90	22.695	25,692	78,091
435	Ewes	2.901	1.1421	10.25	158.20	5.06	25.30	19.044	21,549	85,177
798	....do	1.973	0.7767	7.21	111.28	8.20	41.00	29.635	33,547	81,840
799	....do	2.268	0.8929	7.80	120.39	7.83	39.15	24.262	27,458	70,135
800	....do	2.299	0.9160	8.09	124.87	8.15	40.75	25.644	29,019	72,872
801	....do	2.092	0.8236	4.46	68.84	8.66	43.30	16.305	18,460	42,632
802	....do	3.026	1.1913	12.30	189.85	8.75	43.75	13.433	15,200	34,743
803	....do	2.816	1.1086	13.66	210.84	6.63	33.15	27.502	30,483	73,041
804	....do	2.412	0.9496	8.08	124.71	6.51	32.85	22.222	25,149	76,557
805	....do	2.412	0.9496	8.17	126.00	5.99	29.95	28.287	32,019	106,907
806	....do	2.54	0.9999	7.52	116.07	6.99	34.95	18.784	21,255	60,817
	Average for ewes	2.474	0.9740	8.754	135.085	7.277	36.385	22.884	25,895	71,162
	Average for class	2.437	0.9594	8.462	130.592	6.928	34.640	22.797	25,804	74,495
	½ Merino, ½ Shropshire, ½ Southdown.									
848	Rams	2.833	1.1153	10.70	165.15	7.82	39.10	21.335	24,153	61,772
849	....do	2.253	0.8870	7.02	117.61	9.17	45.85	23.989	27,152	59,219
850	....do	2.39	0.9409	7.26	112.05	8.10	40.50	20.336	23,021	56,842
851	....do	2.52	0.9929	9.90	154.19	7.53	37.65	25.756	29,155	77,438
852	....do	2.022	1.0322	6.77	104.49	8.46	42.30	15.756	17,837	42,168
853	....do	2.295	0.9035	5.26	81.18	7.97	39.85	16.732	18,935	47,516
854	....do	2.24	0.8818	6.76	140.04	8.15	40.75	21.556	24,402	59,882
855	....do	3.117	1.2271	10.70	165.15	7.18	35.90	17.621	19,945	55,558
856	....do	3.039	1.1964	9.5[illegible]	147.40	7.89	39.45	16.545	18,731	47,481
857	....do	2.766	1.0889	11.68	172.25	7.02	35.10	24.426	27,650	78,775
	Average for rams	2.608	1.0267	8.63	133.20	7.93	39.65	20.301	22,976	57,946
808	Ewes	2.414	0.9503	7.06	108.97	6.50	32.50	19.385	21,946	67,526
809	....do	1.956	0.7700	5.72	88.29	7.78	38.90	23.921	27,073	69,596
810	....do	2.889	1.1373	11.39	176.80	7.16	35.80	22.864	45,873	72,271
811	....do	1.832	0.7212	3.95	60.97	8.45	42.25	18.831	21,312	50,443
812	....do	1.912	0.7527	4.22	65.13	8.31	41.55	18.469	20,905	50,312
813	....do	2.05	0.8070	6.85	105.73	7.07	35.35	25.980	29,404	93,181
814	....do	1.794	0.7062	5.39	83.18	7.86	39.30	26.796	30,333	77,162
815	....do	2.026	0.7976	4.36	67.29	7.18	39.90	16.995	19,241	48,223
816	....do	1.954	0.7692	5.62	86.74	6.64	33.20	23.551	26,654	80,283
817	....do	2.264	0.8913	6.12	93.56	6.97	34.85	19.104	21,617	62,036
	Average for ewes	2.109	0.8303	6.07	93.69	7.392	36.96	21.835	24,719	66,879
	Average for class	2.358	0.9283	7.35	113.44	7.66	38.30	21.150	22,938	62,500

TABLE XIV.—*General averages of all measurements and computations for each class of crossbred wools.*

	Class.	Number of samples tested.	Fineness.		Strain.		Stretch.		$\frac{D^2 \times S}{D^1}$	$18109\frac{S}{D^1}=R$	$E=\frac{R}{P}$
			Centimillimeters.	Thousandths of inch.	Grams.	Grains.	Millimeters.	Per cent.			
Thoroughbred wools, Merino	Ram, yearling	1	2.05	0.8070	6.31	97.39	7.15	35.75	*grams.* 24,924	27,186	76,045
	Ram, 4 years old	1	2.016	0.7936	4.53	69.92	7.11	35.55	17,825	25,495	71,459
	Ewe, 4 years old	1	2.651	0.8074	4.00	61.74	4.29	21.45	15,249	17,260	89,467
Crossbred wools, $\frac{1}{2}$ Merino, $\frac{1}{2}$ Southdown.	Average for class	2	1.965	0.7736	5.55	85.66	6.70	33.50	22,999	20,032	77,706
Crossbred wools, $\frac{1}{2}$ Merino, $\frac{1}{2}$ Southdown.	Average for ram	1	1.93	0.7677	5.85	90.29	5.61	28.05	24,615	27,865	93,841
	Average for ewes	2	1.910	0.7595	6.07	93.69	5.95	29.75	26,988	29,852	100,343
	Average for class	3	1.929	0.7594	5.958	91.61	5.78	28.90	25,618	28,997	100,335
Crossbred wools, $\frac{3}{4}$ Merino, $\frac{1}{4}$ Southdown.	Average for rams	21	1.888	0.7433	5.199	80.24	7.913	39.565	23,387	26,417	66,777
	Average for ewes	12	1.957	0.7704	4.97	76.71	8.20	41.30	20,763	23,112	96,892
	Average for class	33	1.923	0.7570	5.088	78.53	8.067	40.335	22,014	24,911	61,600
Crossbred wools, $\frac{7}{8}$ Merino, $\frac{1}{8}$ Southdown.	No rams	0									
	Average for ewes	11	2.394	0.9425	7.61	117.47	8.192	40.96	21,245	24,051	58,718
	Average for class	11	2.394	0.9425	7.61	117.47	8.192	40.96	21,245	24,051	58,718
Thoroughbred wool, Shropshire	Ram	1	3.69	1.4015	17.95	277.05	6.38	31.90	21,16	23,938	59,606
Crossbred wools, $\frac{1}{16}$ Merino, $\frac{15}{16}$ Shropshire, $\frac{1}{16}$ Southdown.	Average for rams	10	2.139	0.8421	6.053	93.43	7.52	37.60	21,166	23,980	63,724
	Average for ewes	10	2.106	0.8291	5.34	82.42	7.65	38.25	19,264	21,798	57,486
	Average for class	20	2.122	0.8354	5.70	87.98	7.585	37.92	20,254	22,919	60,441
Crossbred wools, $\frac{3}{8}$ Merino, $\frac{5}{8}$ Shropshire, $\frac{1}{8}$ Southdown.	Average for ram	1	2.40	0.9448	8.17	126.10	6.58	32.90	22,695	25,692	78,091
	Average for ewes	11	2.474	0.9740	8.754	135.085	7.277	36.385	22,884	25,895	71,162
	Average for class	12	2.437	0.9594	8.462	130.592	6.928	34.64	22,791	25,895	74,495
Crossbred wools, $\frac{5}{8}$ Merino, $\frac{3}{8}$ Shropshire, $\frac{3}{8}$ Southdown.	Average for rams	10	2.608	1.0267	8.63	133.20	7.93	39.65	20,601	22,970	57,946
	Average for ewes	10	2.109	0.8303	6.07	93.69	7.392	36.96	21,835	24,719	65,879
	Average for class	20	2.358	0.9283	7.35	113.44	7.66	38.30	21,150	22,938	62,500

CONCLUSIONS.

These tables, like those which precede them, would seem to require no explanation. We have endeavored to arrange the results in them, so that all who examine them may follow them to definite conclusions. As a result o our study we arrive at the following:

(1) The extremes of fineness vary from 1 centimillimeter, $\frac{1}{2540}$ inch, to 5 centimillimeters, $\frac{1}{508}$ inch.

(2) There is an apparent variation in the diameter of the same fiber of from 15 to 20 per cent. of the entire diameter.

(3) There is a great irregularity in the numbers occurring above and below the average of fineness, while a predominance of tests below the average frequently occurs.

(4) We find in this series an exceptionally high extreme of stretch, reaching 85 per cent. the length tested, while the minimum falls as low as 10 per cent. and even 5 per cent. the length tested.

(5) In the averages for fineness for the several classes we find less variation than might be expected. Until the Merino blood falls as low as $\frac{1}{2}$ no influence of cross upon the fineness is discernible. And in no case does the variation in the average of fineness appear greater than might occur in animals of pure blood until the Merino blood is reduced from $\frac{3}{4}$ to $\frac{3}{8}$.

(6) With an increase of Shropshire blood there is a regular increase in the diameter of the fiber.

(7) As might be expected, a comparatively wide margin occurs in the figures for all qualities, but all as a rule are high.

(8) The average ultimate resistance will vary from 15,000 to as high as 45,000 pounds per square inch, and the modulus of elasticity from 35.000 to 125.000. If we compare the general averages as regard fineness, ultimate tensile resistance, and moduli of elasticity, the grades stand as follows:

	Fineness.	Ultimate resistance.	Moduli of elasticity.
	Centimillimeters.	*Lbs. per sq. in.*	
Pure Merino	2.099	23,289	76,323
$\frac{1}{2}$ Merino, $\frac{1}{2}$ Southdown	1.965	26,662	77,706
$\frac{1}{2}$ Merino, $\frac{1}{2}$ Southdown	1.929	22,997	100,335
$\frac{3}{4}$ Merino, $\frac{1}{4}$ Southdown	1.923	24,911	61,600
$\frac{7}{8}$ Merino, $\frac{1}{8}$ Southdown	2.394	24,051	58,718
Shropshire	3.69	23,938	59,606
$\frac{15}{16}$ Merino, $\frac{1}{16}$ Shropshire, $\frac{1}{16}$ Southdown	2.122	22,919	60,441
$\frac{3}{8}$ Merino, $\frac{5}{8}$ Shropshire, $\frac{1}{8}$ Southdown	2.437	22,774	71,495
$\frac{5}{8}$ Merino, $\frac{3}{8}$ Shropshire, $\frac{3}{8}$ Southdown	2.358	22,938	62,500

(9) If we compare this table with that of Messrs. Baechtel, we find that the highest value, as represented in the ultimate strength (modulus of elasticity), corresponds with the highest net money return per head per annum.

(10) The variations here noted are no greater than might occur from individual to individual.

(11) For the production of medium wools the grade animals here described will yield as good a product as animals of pure blood.

(12) These results, taken in connection with the similarity of structure of the fibers in the several breeds shown elsewhere, indicate the possibility of profitable and valuable results in the crosses between the Merino and Down breeds.

(13) If we arrange the moduli of elasticity in order from highest to lowest, we find that the grade wools stand in the following order:

¾ Merino, ¼ Southdown	100.335
15/16 Merino, 1/16 Southdown	77.706
⅝ Merino, ⅛ Shropshire, ¼ Southdown	74.495
⅝ Merino, ⅛ Shropshire, ¼ Southdown	62.500
½ Merino, ½ Southdown	61.600
9/16 Merino, 1/16 Shropshire, 3/16 Southdown	60.441
½ Merino, ½ Southdown	58.718

(14) If we arrange the fineness in order from the lowest average diameter to the highest, the several grades will assume the following order:

¾ Merino, ¼ Southdown	1.923
¾ Merino, ¼ Southdown	1.929
15/16 Merino, 1/16 Southdown	1.965
9/16 Merino, 1/16 Shropshire, 3/16 Southdown	2.122
⅝ Merino, ⅛ Shropshire, ¼ Southdown	2.358
½ Merino, ½ Southdown	2.394
⅝ Merino, 1/16 Shropshire, ½ Southdown	2.437

Other conclusions may doubtless be drawn from these figures. Our object has been simply to develop here the true value of the material represented, leaving to others the matter of the practical application of the results. But we believe they offer very much of encouragement to those especially interested in the combination of mutton production with the production of moderately fine wool. Here is simply a beginning of what should be done. The variations in the ultimate value of the fiber of Merino by the infusion of the coarser wool blood, and even in the fineness, is so slight as to appear almost insignificant. The first cross appears to have a marked influence upon the quality of the fiber, but the later crosses appear to produce very nearly an equilibrium in this respect.

With these facts before us, together with the facts set forth in the record table of increase of fleece, percentage of lambs, net return from flock, &c., furnished by Messrs. Baechtel Brothers, we repeat that the wool-grower who cares to add the production of good mutton to his industry must find much of value in the results. And we cannot help feeling impressed by the fact that the time is ripe for the extension of these experiments. Every farmer should keep a flock of sheep, and every farmer should thus lend a hand in the advancement of the production of cheap wool. Careful experiment in this line will cause no loss to either the experimenter or the agricultural world in general.

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